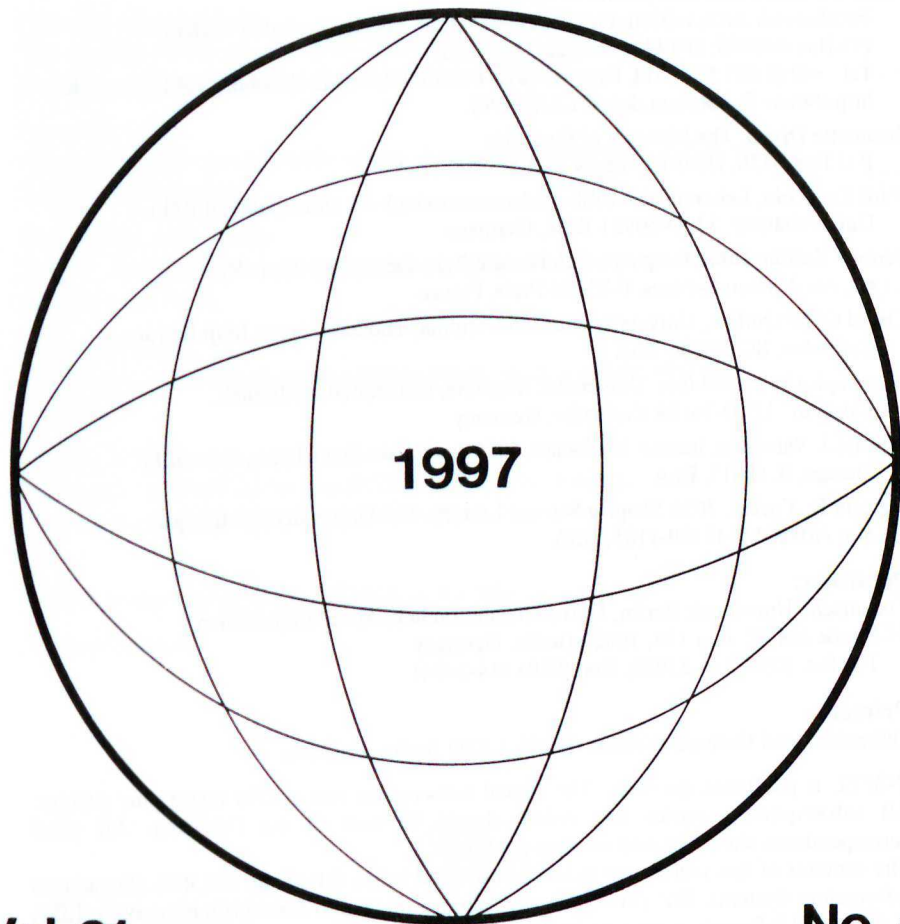


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BUSINESS LIBRARIES: MEANS AND FORMS OF INTERNATIONAL COOPERATION

By Elisabeth Simon

The subject

Business information used to be an unknown topic to and in libraries in France and Germany. This was different in Great Britain where public libraries at Sheffield offered as early as 1922 for the first time this kind of service. Due to the structure of the public libraries to serve as a host for special services as e.g. the Citizen Advice Bureau after the Second World War and other services which lead to the community centres in the seventies in as well Great Britain as well United States business information was offered in very different libraries and under different forms of organisation. Universities as well previous Polytechnic libraries, information units in other agencies as well National libraries e.g. the British Library and the National Library of Scotland are today working in this field.¹ If one is strolling through London these days you will find the sign „business links“ everywhere. The service also led to the foundation of a „group“ inside the British Library Association which comprised professionals from all types of libraries anticipating a development which will prevail in the future development of libraries and the information field.

„Information for commerce and industry“ was the first big conference at Cologne in 1988, organised together by the British Council, Cologne, The Foreign Relations Bureau, Berlin, the Anglo-German Foundation and the Library Association.² This conference was followed by a seminar at Hatfield, which introduced the German audience to the service HERTIS of this very polytechnic at Hatfield.³ These events remained for the time being without a result in Germany;

1 John Coll: Business Information from a National Library. The Scottish Experience. Würzburg 1997. (A paper given at the international seminar organised by the Foreign Relations Bureau. I will be citing as Würzburg 1997. Papers of this seminar will be published as proceedings at the end of this year

2 Library Services to Industry - Information für Handel und Industrie - Ein deutsch-britischer Konferenzbericht edited by Monika Segbert among others, London, Anglo-German Foundation 1988.

3 Informationsdienste für Handel und Industrie Workshop Hatfield 1989. Edited by Hans Peter Thun. DBI Materialien 89.

too much of the necessary administrative and political framework was missing as well. Cooperation between different types of libraries and strong user orientation because this service should be particularly shaped for a clientele which does not necessarily come to libraries. The discussion whether this service should be more understood as a micro-oriented tool or a macro-oriented one seems to be solved now after long years of discussion if the aim of libraries to earn money with it or the aim to improve the infrastructure of a community, a region or a country is more important. It seems that now the aim to improve the economical situation of a city or a region is more prevalent. The global market made accessible by business information for the public has been reached better than the aim to improve the financial situation of libraries on a daily basis. This may have something to do with the community mind of librarians, which is, in a way, common to all librarians in the world.

Whereas this service became more and more important and led to the European Business Conferences organised by TFPL, Great Britain, which are able to draw a big international audience to different places in Europe, in Germany the service did not gain the interest of neither the administrative bodies nor the libraries. This might be partly due to the „Chambers of Commerce“ which are obligatory in Germany for business people and which were offering this kind of service, although they did not always reach their clientele especially at the small and medium enterprises. The same clientele was also the target of a big project carried out in the eighties and turned out to be a failure for probably the same reason. It should be praised though, that the results of this project were very honestly and well documented⁴ which shows, generally speaking, that the project was probably planned and organised in a much too academic way to reach the goal and clientele for which it was meant for. In a country such as Germany before 1989, the necessity to offer a service for developing a business-friendly infrastructure was not regarded as one very urgent. This was e.g. quite different in Ireland⁵ where big efforts were made to integrate this service in all libraries and information services, as well in the professional education where the library students had to do an internship of six weeks in a firm or cooperation and the staff of the universities were forced to look for these places and come into and stay in contact with the

4 Ralf Schmidt: Modelle der Informationsvermittlung. Analyse und Bewertung eines experimentellen Programms. Heidelberg Physica 1992, 320 S.

5 Elisabeth Simon: Information, Aufklärung, Wissen, Buch und Bibliothek 44, 1992, H10/11: 916 ff. Compare also „Management Group of the Northern Ireland Library and Information Plan 1990-1991“.

business world. The success of this program was to a mutual benefit since it promoted the understanding of business processes on the one side and to the importance of information on the other side. This approach can be compared with the staff structure of the Commercial and Technical Information Services Europe - Business Services Dow Europe about which Elisabeth Mangold reported during an international conference about Business Information at Würzburg, June 28th till July 4th, 1997⁶ Ms. Mangold is replacing nearly one third of her staff of this information unit each year by scientists. She hopes that in this way the information personnel will get involved more with the real needs of the scientific user of the unit, on the other side scientists should learn about the advantages which a good information service has to offer. Although she confesses that the scheme does cause more work and more involvement with new staff is necessary, this will be counter-balanced by the advantages.

Differently from the libraries in Germany and other countries, the libraries in Central and Eastern Europe became very interested in the service from the beginning on after 1989. It has to be taken into consideration though, that „business,, is seen in a much more broader context as it was done previously. Due to the history of these libraries they call business services everything which has not to do with the strict educational role of the libraries the only one libraries had before the wall came down. This sometimes leads to misunderstandings. Libraries were in the first place only interested in the earnings which such service could offer. Sometimes it is a sheer way to survive; sometimes they consider this service as ways for earning a living for themselves and sometimes for the library. It belongs to the dark chapters of the East-West Cooperation in the field of libraries that the illusion to earn money with this service or even to privatise libraries was nourished by so-called Western councillors who quite often had not been successful at all in this field in their own countries.

At first, a general interest to learn and apply this service could be generally observed but then great differences appeared - in the same way as countries and libraries started to differ. However, there is a general agreement that this service should be installed in the libraries in Central and Eastern European countries by all means to help and inform people about business and the market and to pave the way for a better business information structure in the countries concerned. Therefore today, you will find units and services which work for a better information and promotion of businesses and industry in the region, as for

6 Ms. Mangold did not offer a paper, but she can be approached through the Foreign Relations Office, Berlin.

example at Szczecin⁷ where such a unit was installed by cooperation of the municipal library and the World Bank and INFOCUS.⁸ Infocus is a very creative magazine which tries to combine user and the market and serves not only as an exchange of experiences but allows also advertisement of products. The editor of this magazine reported very clearly about the manifold difficulties which the former bloc countries are facing. People, especially the younger ones, were neither educated nor allowed to work with information or business data. They are not used to interpreting nor to using them for building up their own „business“. This might explain the somehow obscure business situation in these countries which needed quite a time to be market driven.

The business libraries in Russia were developing these services for survival and they were offering all services which seemed to be needed, therefore, they were not only working with information but doing business as publishers, book stores, copying services, editors of yellow pages and agencies for joint ventures. One of the most successful library in this field is the library for Foreign Literature at Moscow which is in very good shape but confronted with a desolate situation of their funding agency, the Ministry of Culture. This sometimes may cause problems - Russian libraries which are very successful in doing business do not regard their authorities in government and administration very highly. Other libraries not only at Moscow but in the region have somehow followed this example. Libraries publish and sell books, they rent rooms and office space, they provide a very elaborate copying service, serve as advisors and accompaniment for western investors. As a matter of fact joint ventures with libraries as an intermediary have a high success rate which was reported during a workshop at the European Business Conference at Berlin 1997.⁹ So coming up with a unique term seems to be impossible. The service relates more to the situation of the library in the community to which it is orientated, but much more than other services depends on the professionals and their dedication, knowledge and especially to their will to learn and adjust themselves permanently to new situations for which in most cases they have not been educated.

7 Business Information in Libraries. Conference Proceedings of the 2nd International Symposium of Librarians, Szczecin, 19-21 October 1994.

8 Jelena Hankova: INFOCUS - a new Czech monthly journal about information sources, services, systems and networks in: Proceedings of the international seminar „New Library Strategies“, 3-9 September 1995.

9 Elisabeth Simon: The Russian Federation and the Commonwealth of Independent States: The Provision and Availability of Business Information in: Programme of the 7th international conference on „European Business Information“, March 1997, Berlin.

The service

For the first time since its foundation the president of the Library Association of the United States chose the motto „Libraries - Global Reach. Local Touch.,, and explains: „Ours is a smaller world. As librarians we have a responsibility to provide collections and services that will help Americans to understand our increasingly diverse society and prosper in the new world economy. We must also unite with colleagues around the world in advocating funding, information equity, copyright and other issues that will shape the global information infrastructure.,, (Barbara J. Ford, president, American Library Association 1997- 98)

This is an extraordinary statement for a library association in a very vast country which was from its foundation on based on a very local and strong community be it a university or a small city. Now, it stresses not the possibility but the necessity to reach out, to co-operate internationally which refers so much to business information. The double face of business information demanding strong international cooperation and otherwise to rely on deep involvement at the local base does relate to all library services today but especially to business information. If in 1994 it could be said: „The need for international cooperation for providing information services with special reference to business information“¹⁰ so today you might turn this upside down: „Business information with specially refer to international cooperation are needed for providing a good information service.“

The conference at Würzburg which served as a very lively and fruitful exchange of experience of 17 different countries was a good example for this observation. Before describing in more details the different experiences, the whole audience agreed on some general observations:

- business information always requires a close regional as well as international cooperation. Without it this service cannot be offered;
- business information is, in the first place, an input for the development of a region and, therefore, also for libraries. They give libraries a good possibility to play an active role in the development of their own country, as an example the National Library of Scotland. They will also profit from the economical recovery of the region. So by playing an active role in this service they help themselves;

10 Elisabeth Simon: The need for international co-operation for providing information services with special reference to business information in: proceedings of the international seminar of „Information Technologies and Information Services“, 20-24 October 1994, China, Collection B.

- they offer libraries the possibility of gaining some of their own funds which they can use for other services which are not funded sufficiently. An example was given by the Municipal Library of Cologne which used these additional funds for some services in their children's library.¹¹

If we look at the different services we may ask when was it successful, when did it not succeed. According to some information we got e.g. from Hungary, on the framework of the European Programme Phare, a great deal of business information units were installed in different libraries and a great number turned out to be disappointing. As Ms. Billedi¹² an library information consultant pointed out, the reasons for quite a number of companies going bankrupt in Hungary are as follows: marketing problems, lack of information skills and low level of financial control. Although a good information service could help with these deficiencies, it is also true that a good business information service will be disturbed by them, too. Ms. Billedi continued that the operation of a good business information service requires a good and thorough preparation, cooperation (inside and outside the library) professional training; this is especially important for a clientele which is used to thinking in different terms as librarians do, good quality of service (which cannot be stressed enough, a list of information which is not at hand will not work at all - on the contrary) and financial and technical background. It does not make sense to deny the absolute necessity to invest in this equipment but on the other side, it will be worthless if the other prerequisites cannot be fulfilled as lacking technical equipment is also contradicted by technical equipment which is not used at all: a situation which was quite frequent with the use of on-line services in various countries and can be found everywhere.

Following the already mentioned international seminar at Würzburg, a daily newspaper reported about it under the heading „What does it really want,, (Was will der eigentlich?) which stressed a very important issue of business information, the personal contact and the personal advice and consultancy. From Stuttgart, the office for business foundation was reporting about their really thoroughly and well done service; at least they are offering a lot of brochures and guidelines for services. This is a good start and might even be helpful but on the other side the Business Information Århus, Denmark, a service of the Central Library is presented in the Internet¹³ from which it was contacted for participation

11 Frank Daniel; Establishing Business Information Services in a Metropolitan Area. Würzburg 1997.

12 Ibolya Billedi: The role of information by the transformation process in a new economical structure. Würzburg 1997.

13 Schmidt, Anna, Business Information Århus - an introduction, <http://www.aakb.bib.dk>

in this seminar. Its clear-cut and very well-organised service has a very precise mission. It has one very well displayed brochure presented in the Internet in several languages and it was made for the infrastructure of the region. It is housed as a separate unit at the Central Library which is of common use at nearly all these information units. Office Hours and service approach are at the moment too different from regular library service and therefore to avoid staff turbulence in most cases professionals work in close contact but separate from the daily library routine. The most interesting issue is that the unit organised its work office hours and programme by themselves but also generally it is understood that nobody should work in this unit more than some years, although this is not compulsory. Most of the promotion work was done by visits and, as we were told during the workshop which was held by Ms. Schmidt, the librarian in charge, it may happen eight or nine times that nobody recognizes you or your work - patience may result in most cases from a good co-operation. On the other hand, the library staff really was involved in the business field and after some time got acquainted to the information needs and could respond better. The service relies on very detailed and well-defined information but before negotiating for this service and offering it, the „ice has to be broken“ and the people involved in it have to be approachable and knowledgeable, which should be obvious for all services but does refer to this kind of service even more.

Business Information as a strategic tool

When we have talked about business information as a service for the development of a region characterised by its local involvement and international cooperation, we already touched on its meaning as a strategic tool. A national library in the general opinion has no other professional strategy than collecting the written output of a nation (at least up to now) or the national heritage, although I suppose this will become a little bit blurred in the time to come in multicultural nations. When Rushdie, before he was damned by Islam, was sent on a British Council tour reading from his books, I was wondering whose representative he was: the previous Indian colony, the new Indian state or Great Britain. Probably he saw himself as a good author who is always an international phenomena but it might easily be that national libraries will face a kind of problem in the time to come when they rely only on the „national“ literature. Therefore, it was an extraordinary experience for the whole audience to listen to the report of John Coll, from the National Library of Scotland.¹⁴ By offering SCOTBIS the National

¹⁴ see 1)

Library of Scotland made a very surprising strategic decision.“ Although the National Library of Scotland was committed to such a venture, the resources it could provide (especially in terms of staffing) were somewhat limited. On this basis it was agreed that SCOTBIS should seek to fill obvious gaps in the provision of business information within Scotland rather than be all-embracing. To this end, all business information defined as „theoretical“ i.e. economic theory, management, etc. should be excluded as it was felt that much of this data was being collected by academic institutions. Instead the service would seek to provide national resources in the areas of „company and industry information.“ This is a surprising decision for a national library. It was wise enough to exclude parts of the service which others already delivered and probably quite well. It was considering the wealth of material it had and probably the problems it had with suitable staff. Very often in libraries generally, and especially in this field - do not define the market niche which they could cover well or maybe in cooperation with another agency but they start to compete, in most cases, in services which are already done very well by some other libraries which might in the end hurt both institutions. This library was considering the fact, that its strength was in the collection being a „legal deposit library“. Therefore, it could make publications accessible which had previously been inaccessible to Scottish users. The service also introduced the new media to the users and could easily introduce this shift in usage by the whole library. By the observation that although the library was offering this great deal of material, it had somehow a negative image for business users. Since the library perceived its role as the library of the last resort, the national library provided minimum assistance and rather restricted admission. The new Scottish Science Library incorporating a business service, however, was quite a different animal and it can be perceived that the experience of the business information will consciously or unconsciously influence the approach, organisation and future development of the Scottish National Library.

Strategic planning is absolutely obligatory for libraries in private companies because they must become a strategic resource for the company. Mr. Henning Nielsen's¹⁵ C.V. had apparently made him very suitable for running such an information service successfully. Showing very clearly that if „publicly funded libraries would become a strategic tool for a community survival, life would become more simple.“ Mr. Henning Nielsen has worked in the public sector, became an advisor and salesman for electronic systems before he was appointed

15 Henning P. Nielson: Business Information as a strategic resource in the company. Würzburg 1997.

the library manager of Novo Nordisk A/S co-operate library. The question with which he opened the discussion by introducing the services was, „What is the cost of misinformation.“ As he said it can be everything from „nothing“ to the „death of my company“ - but the question reflects the fact that information represents real value (is an asset in the company) and that information cannot only be missing information but also be „insufficient, wrong, of bad quality.“ He pointed out that there „is a growing awareness among management about the importance of information as a strategic decision tool.“ This values information more than in previous years, on the other hand it also requires good service of excellent quality. By pointing out that in chemical research the timely, correct and comprehensive information might represent an equal value as the research itself and the discovery itself making the checking and proving of a new medicine to a long and very cost intensive process, for the subject of chemistry and its researchers, the access and availability of information plays a very great role. By the way, the founder of the British Library Document Supply Centre which was the very first of this kind of institutions was founded by a chemical researcher.

Let me now only quote the strategic objectives of this information unit which just during the last months had successfully scrutinised:

Strategic objectives:

- Focus on automation and processes in document delivery
- Establish the best possible framework for electronic dissemination of journals to users.
- Widen the scope of end-user searching through easy access to in-house or external databases, Internet resources or other electronic information media available.
- Focus on expert online searching supportive and supplementary to end-user searching
- Focus on online searching supportive to research projects in Health Care and Enzymes (main target of the company)
- Focus on end-user training and sharing knowledge on information.

These strategic objectives fit the Rationale of the firm: “the discovery and development and marketing of new medicines and biological-industrial products is an information-intensive process. Information is a powerful resource and a critical factor for the competitiveness and success of a company“ - and you might add, if it is used and developed as a strategic tool and according to a strategic plan of the unit.

The difficulties of defining a strategic goal are growing according to the mission of libraries. We can easily understand that a co-operative library is more able to offer a clear-cut goal than a universal one. But by pointing out the National Library of Scotland we want to verify that the instalment of such a unit, which requires very different service and strategic planning, might in the long run even influence the strategy of the parent institution.

How quickly this might happen and how well strategy can be changed was shown by the example of the business information of the so-called Amerika Haus libraries by Nancy Rajczak¹⁶ of the Amerika Haus Library at Frankfurt/M. The complete transformation of the previous Amerika Haus libraries to business centres was already introduced in 1994 by Mary Boone.¹⁷ Taking into consideration that the future is in the electronic library, Ms. Boone said: „Our vision for the future of the USIS (United States Information Service) Germany Library Programme, based on the conclusions of these analyses is a dynamic, electronic information and communication network through which we can transform ourselves from independent traditional lending libraries into a system of information centres focused on the transfer of information rather than the lending of texts. We will collect a rich mixture of materials in our libraries that include printed books, magazines and government documents from the US since not all information we need is available electronically...“ and furthermore she lay down the vision of a library network for the clients such as legislators, professors, journalists and business professionals. It could be expected, but was nevertheless not foreseen, that here the strategy of how the new information service should be offered led to a complete change of mission. As it was already foreseeable that the idea of a public library in Germany prevailing all these years after the Second World War has been totally abandoned¹⁸ offering now only a business service. It was also obvious in the first place not for a Germany business community but for one in the United States. That means that the idea of bringing people together for joint ventures as e.g. in the papers of Galina Tsesarskaya¹⁹ and the Association of

16 Nancy Rajczak: Government business information services. Würzburg 1997.

17 Mary Boone, Lending Library of Information Center. Consideration concerning future plans for libraries in the Amerika Houses in: Proceedings of the international seminar „New Library Strategies“, 3-9 September 1995.

18 Elisabeth Simon: Bibliothekswesen in den USA. Eine Einführung 1988, 155 pp.

19 Galina Tsesarskaya: International Association of Business Libraries. Experiences and Perspectives. Würzburg 1997.

Business Libraries²⁰ has been completely abandoned, which was also expressed by the new administrative structure in which the new units are working. The strategy of these units is clear-cut. They provide business information in the first place for a home market; that means for business people in the United States, therefore, serving as an international agency for a national clientele. Although the approach is quite international since by providing information from the German market the more European outreach included in its strategy, it is nationally driven. It might also be doubtful whether this strategy will work in the long run since in a quite traditional society as Germany, business information is only partly provided in electronic form. Therefore, an exclusion of the community which will consequently follow such exclusive strategy will narrow the outlook and maybe prevent access to the right information which does come under so many different formats as the project being carried out in Estonia and presented by the Estonian participants of this conference showed.

Formats for Business Information

Although we have already mentioned the role of the Internet by shortly describing the service of Århus Central Library Denmark, as early as 1988 nearly 10 years ago the present president of the Chamber of Handicrafts in Hamburg had already described the large failure of electronic information with small and medium-sized enterprises especially in craftsmanship.²¹ The project which Ms. Virkus and Ms. Tamre of Tallinn have conducted concentrated on the ways business information is used and through which means. Although the Internet had gained considerably during the last year, local newspapers as well as magazines are the first resource of information for business people followed by word of mouth. Estonia, being a small country but with broad and far-reaching international involvement was a very good example for examining the connection of local and international information. The new European University as a cadre school for young managers - who are, compared with other countries, the youngest in this, the most economically successful, country of the former Soviet Union - is playing an increasingly important role in the education of future managers. The young age of these business people is not only caused by their recent education of new business methods, but also by their international approach. Estonia has been quite

20 Nina Shevelova: Information services for corporations by a municipal library of a large industrial centre. Würzburg 1997.

21 Dieter Horchler: Information needs of the clientele of the Guild Hall Hamburg in: Library Services to the Industry, 1988, 68.

successful in reviving its international relations and gaining new ones. For this one has to remember that Estonia was one of the most cut-off countries in Europe with negative consequences when it was first able to establish ties to the European Community. But Estonians returning from Sweden, Canada and the USA did not only bring capital for investments, they brought scholarships, internships and visited language schools in other countries for those who wished to learn. Therefore today, - promoted by a very wise political leadership - Estonia is driving its totally destroyed economy to a market driven and internationally involved one and apparently is becoming quite successful. One of the reasons of its success and hopefully continuing success, will be the mixture of tradition and future. For the same time when the new electronic means are introduced - the Estonian University Department of Library and Information Science is publishing a very interesting electronic journal with interviews of the members of the international professional community - libraries are working together for the introduction of a national library and information system INOPAC which probably will enable the country to network and make accessible all material which is available in Estonia. Therefore, according to my personal opinion, quite useless discussion which formats are preferable for business information has not been posed by this project. It can be often observed that in the local community a shop of business is replaced by one which is not needed or does not meet the real clientele of the community as age, available funds and competitors are concerned. Here the local base of business information as coming by the local newspaper, local meetings, events of the neighbourhood, participation in events of the local school is obvious and probably cannot be replaced by sheer written information; the personal involvement is much too important. On the other hand the service Sheila Webber²² was offering by listening and examining Internet addresses which offer business information can be extremely helpful with a media which needs so much time to use. Therefore, the choice of the format is not only according to the business you are in but also depends on the person which is delivering this service and the involvement of the community being served as the example of Århus Business Information showed as mentioned above.

Business libraries for survival

At a time in which all information units, be it public libraries, university libraries or private libraries, are pressed to justify their existence, the importance of the service can play a vital role. In a time when everything that costs money is questioned and the concept of long range planning seems to have been abandoned

22 Sheila Webber: What business information is there on the Internet. Würzburg 1997.

altogether, not only some business but also public administration basic research as well as investments in building up an infrastructure will receive public funding only reluctantly. Therefore, the example of the International Association of Business Libraries in Russia is very interesting.²³ This association not only comprises libraries which offer such services but in most cases make their living doing it. These libraries build their new role and activities in the good standing which they occupied in the public. The so-called scientific public libraries are a feature of the regions of Russia. Some of them have been well supported in regions which have gained wealth after the break down of central power in Moscow. But the most interesting example is Moscow itself where the centre and headquarters work not only as an administrative and consultative body, but by running some municipal libraries are able to gain public support and funding from the municipality. This municipality uses its activities for building up not only a new business infrastructure but also when opening the first computer library in Moscow for the education of future taxpayers becoming a tool for the transformation of a society.

In conclusion, it has to be stated, that basically business information has to be timely, correct and of good quality. It has to be directed to the strategy of a firm, corporation, municipality or a region. It requires special staff, special services and opening hours, which most libraries do not provide at the moment. But this may change. Mainly, business libraries require good communication skills. Business information might often rely more on communication than on providing a large range of material. How different the attitude of Russian business libraries to the American ones in most cases the Russian professionals offer the communication skills by fostering joint ventures²⁴, by accompanying investors to the administrators, by offering not only information material but their position and skills in a community which used these skills for survival during a time when communication was somewhat restricted - libraries very often were a refuge. The Open Society is going to support Russian libraries with a large amount of money for inter-linking them - the new electronic devices and the Internet and electronic mail are excellent means in a vast country where public mail does not work properly any more. It can only be hoped that the integration of communication, information of local needs and international reach will make the provision of

23 Alexander Pournik: Electronic information service - a new type of special public library. Würzburg 1997.

24 „The Project in Bremen“ presented by Dr. Roth Beckman and Dr. Breiling. Promoting the economy in a region - helping to improve the economic structure through information services is aiming in the same direction. the only critical point might be the communication between the parties involved. Würzburg 1997.

business information a great success in this country as any other country would benefit from this. But it should be concluded that this requires a total and comprehensive management approach as Hans Christian Hobohm investigated in his paper: „Changing of management concepts in a digital library environment“.²⁵

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²⁵ Also Würzburg 1997.

DIGITAL LIBRARY DEVELOPMENTS - A REALISTIC FUTURE?*

By Lynne Brindley and Derek Law

Introduction

The concept of the digital library is already a conforingly familiar one, although it has been with us for a staggeringly short pace of time. International organizations, governments, commercial and public sector organizations have been seized by the concept of the information society and have grasped at the digital library as one of the tools which can help mould this into a reality. As a result the pace of experiment is accelerating fuelled by a mixture pf public and private funds.

This rapid expansion of talking, lecturing, writing and research has tended not to address a critical underlying question, the question discussed below - how near are we getting to digital libraries as a real vehicle for service delivery and a clear way forward for library provision? It has become clear from many successful small scale experiments that there is an issue of scale and that turning experiments into operational services poses substantial problems in itself. Building the digital library may be seen as having four components:

- there is a need to get material into it (content in critical mass)
- there is a need to be able to find it (resource discovery)
- there is a need to get material out of it (store, retrieve and delever in useable way);
- and a need to be able to pay for it in acceptable ways

It is not the purpose of this paper to examine or describe the technical issued surrounding digital library research. It can be argued that many of the technical problems are in the process of being solved through major national digital library programmes and commercial initiatives and that the major outstanding problems are economic. There is, however, no sign of an emergent, robust economic model for the development and operation of such libraries. They will change fundamentally the roles and relationships of aa those in the chain of scholarly

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communication and yet attempts at modelling have proved disappointing.¹ As a result we are left with a situation where it is not yet clear how to make the Digital library economically supportable and where we need new funding and business models, which are themselves likely to involve new stakeholders and changing roles and relationships.

International endeavours

It is very clear that Digital Library initiatives are happening all over world and that there is much to be gained from sharing experience and knowledge. The Digital Library appears to have developed and unstoppable momentum, although is quite clearly has different elements and priorities in different countries.

At not wholly random but certainly incomplete list of initiatives demonstrates the global nature of the enterprise.

In June this year a consciously international conference was held in London which set out to be indicative of that sharing. Its sponsors were: CNI, CAUSE (USA); JISC, BL (UK) and CAUL (Australia) and the conference was planned entirely over the Internet on a closed Listserv list. Although the audience was in the end predominantly American and British, the programme featured speakers from Japan, Germany and the European Union Libraries Programme, as well as Australia, the United States and the United Kingdom.

United States of America. The USA has seen major investment in digital libraries. Although much of the funding has gone into blue skies research, there is clear evidence of operationalisation,

- eg. University of California Santa Barbara has support from the library budget and the Vice Chancellor to provide the Alexandria digital library (a geospatial library) as an ongoing service;
- Berkeley has real users (Californian Springe floods - data on water flows and aerial photography model used), and is continuing work on image retrieval;
- the State of California is proposing a statewide digital library;
- Michigan is experimenting with school and public libraries in digital form. It has undertaken observations of children using the Internet - (they spend a quarter of their time on Web pages with content and stay on each page about a minute);

¹ See for example the work done for CNI by the Ubell Consultancy, which found it very difficult to extract meaningful data from stakeholders, even given genuine goodwill from the parties. [Http://www.cni.org/](http://www.cni.org/)

- Illinois - new work on developing semantic mapping, automatic clustering and categorisation (on a 25,000 article database)
- Carnegie Mellon working on video analysis and speech recognition.
- the National Science Foundation is considering a second Digital Libraries programme and is committed to substantial additional funding for five years. Discussions are taking place on possible USA/UK collaboration;

Japan. In Japan the Nara Institute of Science and Technology Mandala Library has created what may be the only „operational“ electronic university library;

European Union. The EU Libraries Programme is in the final stages of the Fourth Framework Programme and is thought likely to fund 4/5 integrates subject demonstrators; the EU proposal for the Fifth Framework programme is under discussion in the European Parliament and is expected to contain an information society programme, but without a direct libraries line as in FP4; content is seen as a key action area;

Australia. There has been some concentration on training and on national data services; funding has been found for experimentation; there is involvement in electronic document delivery including joint funding with the UK of operational developments to the RLG's Ariel software; experimental resource discovery gateways are also being explored.

Denmark. The Danish Government claims to have no natural resources but its people and even a country of five million people has seen fit to launch a major digital library programme. It believes this essential to the very future of the country and so the programme aims to provide the operational services which will equip its graduates to maintain the country's economic and social position. Although it recognises that it must work with and learn from larger and richer geopolitical blocks, the programme hopes to deal with some issues, such as the future model of scholarly communication, at a national level which have proved intractable in larger countries.

In sum, we are witnessing a dazzling array of innovation, which is very gradually emerging into service provision.

The UK Electronic Libraries Programme²

It is worth focussing on the United Kingdom's eLib programme and related national initiatives in order to give a flavour of a centrally planned and implemented programme which is making substantial progress towards the

² Details of both the programme and individual projects may be found at <http://ukoln.bath.ac.uk/elib/>

implementation of the Digital Library, under the auspices of the JISC (Joint Information Systems Committee). Over a five year period the work of the JISC has made substantial steps to providing a range of research, development, content provision and services at a national level which are now being connected together to give organised and meaningful service at local level.

The Electronic Libraries Programme has funded some sixty projects, all of which are at different stages of completion. The areas covered are: electronic journals; electronic document delivery; on demand publishing; training and awareness; access to networked resources; digitisation; a small programme of supporting studies. From the beginning it was felt vital to have a proper process of external evaluation. This external evaluation shows success so far, not least in the development of a cadre of information professionals, familiar with project management, understanding how difficult library issues are, able to deal with copyright, publisher relations, etc., and capable of wrestling with business plans and operationalising and maintaining experimental projects.

The managing committee for the programme is committed to next phase of eLib development and has just completed a bidding process in three major areas for implementation over the next three years:

- hybrid libraries; an assumption is being made for the foreseeable future in most libraries there will be a need to integrate traditional and electronic resources to provide service for users. In some libraries „traditional“ may already include a range of media. Music collections are a good example of this. At the time of writing five projects have been chosen as exemplars in this area.
- „clumps“; an inelegant term, used to indicate a logical physical or virtual grouping of resources (bibliographic or cross domain). It is hoped to fund several regional and subject clumps, providing users with seamless access to much wider range of catalogues in more integrated way. Such clumps might consist of the M25 libraries (London libraries within the M25 motorway ring), or all map libraries.
- digital preservation; an important but technically, economically and organisationally fraught area; the aim is to have a practical demonstrator project, probably involving the British Library with its legal deposit concerns, and other research libraries, in order to test the major issues involved.

In addition the committee is getting plans from many of the existing projects for their ‘exit strategy’. In general these are either looking for transitional help which will give them time to become commercially viable or are exploring opportunities for federated service. For example the resource discovery projects see little

individual future but potential in providing an integrated service, perhaps even a part of a faulty-based model, along the lines of the Arts & Humanities Data Service (AHDS).

Wider JISC Initiatives

Although much the highest profile programme funded by the JISC, it is important to the sLib programme in context of much wider electronic information service initiatives of JISC to get a picture of the very real richness of UK developments. In 1996/7 a further fifteen million pounds was spent on these initiatives. Some examples are:

- *AHDS* - the Arts & Humanities Data Service. A new centrally managed/distributed provision model for the support of humanities research and teaching. There is integrated service provision for digital resources in these areas - archaeology, history, Oxford Text Archive, performing arts, visual arts.
- *COPAC* - a nationally available online catalogue of research library resources. Curiously the UK has been very belated in its creation of a national union catalogue of research libraries, in part due to a deeply divisive proposal which failed for political reasons in the late 1970's.
- *National Datacentres*. The BIDS centre at Bath, EDINA at Edinburgh, MIDAS at Manchester and the longstanding data archive at Essex support national deals for content. Much of this bibliographic, ranging from Science Citations Index to Beilstein, but increasingly there is provision of full text (it is hoped to be first non USA JSTOR mirror site), images (such as the Visible Human), and datastreams from satellites.
- *Advisory and research services*. It is often difficult for those involved in the practicalities of offering services to find the time to discover relevant developments. JISC has found it extremely cost effective to fund a handful of technology watch centres which act as an information filter for the community at large, run updating seminars and workshops or conduct small pieces of research. AGOCG and UKOLN are good examples of this. The latter has undertaken particularly important work through the so-called Models workshops to define distributed networked information architectures, and also to work on metadata, linking to international initiatives such as the Dublin Core.
- *Images*. Early work has begun in defining possible work activities has begun with BUFVC (the British Universities Film and Video Council) and BFI (British Film Institute) to develop moving image services over the network and pilot services will be underway early in 1998.

- *National Digitisation Centre*. This has been set up to develop a content programme and test its economics. Early work will include images and some major historical materials.
- *Non Formula Funding for the Humanities*. A major funding programme has been instituted to improve access to special collections in the humanities and to support the cataloguing, preservation and in some cases digitisation of library and archive materials. This again stresses the strong wish to support all disciplines and not just „big science“.
- *Pilot Site Licence Initiative*. Hundreds of electronic journals (effectively electronic facsimiles of print journals) have been purchased from three publishers as part of a deal to acquire paper copies. The project is currently being evaluated but is aimed at testing yet another model of the provision of commercial materials. This Funding Council initiative is to be taken over by JISC, where it is likely to be primarily electronically focussed.

Goals of the UK Programme

In summary, taken together these various initiatives represent a substantial annual commitment on behalf of UK higher education to consolidating the building block of the digital library, which are defined as:

- Acquiring a critical mass of content. This is well underway;
- Resource discovery and retrieval. Exemplars are available on a large scale, both subject based and generic, and including underpinning technologies;
- Delivery in useable form. Work is underway on the integration of JISC services interfaces with campus systems;
- Economic models. The programme has been served well by its „free at the point of use“ philosophy for content. This helped to shape the dialogue and debate with commercial suppliers. New deals are likely to modify the existing approach in order to provide greater choice of payment methods, especially to suit smaller institutions. An authentication initiative for JISC services has proved an important underpinning technical development.

Application to a social science library - the BLPES experience

BLPES, the library of the London School of Economics, is probably the largest research library in the world dedicated to the social sciences, with over four million items in stock. Although a large research library rich in print and archival materials it has been heavily involved in a range of electronic library projects as

that is where at least part of its future must lie- A range of relevant research and other project work going on, helping to create a working „hybrid“ library in social science:

IBSS Online published by BLPES, with its provision as a national database at BIDs free at the point of use for the whole UK higher education community. This provision was negotiated by JISC under its national datacentres budget. IBSS is now beginning to index electronic journals and link to their URLs;

*SOSIG*³ - is the Social Sciences Information Gateway and is a resource discovery service based at Bristol University. It is one of the first such services, at least, at least in the UK, and has done pioneering work on standards. It has already become very important to social science researchers and is embedded in a wider desktop tool for access to a range of networked resources.

Decomate project -the successful famous provision of electronic copyright material under licence, working with Barcelona and Tilburg; provided for Elsevier journals in economics and information systems for desktop access.

Decomate 2 under final negotiation with the European Union - to provide for wider and more intelligent integration of access to digital resources at all three partner sites, on a virtual basis, and seamless and transparent provision to end users.

Superjournals -BLPES is an evaluation site for this eLib project, leading work in the politics area. It seeks yet another critical mass of electronic journal provision.

LAMDA -a document delivery project involving a number of higher education libraries in London and Manchester. It is based on Ariel software and intends to manage and deliver documents electronically, thus providing a source of revenue to participating libraries.

EduLib -a member of information services staff is gaining accreditation as a trainer under this University of Hull based project. It is anticipated that this will lead to a positive cascade effect on trainers. In addition the project is having a huge impact thinking about the delivery of training materials.

hybrid libraries - two bids have found funding in this area. The first successful bid was within the Research Libraries Group initiative of digitisation on global migration. BLPES will be digitising the letters of emigrants. Under the Non Formula Funding Programme mentioned above BLPES will undertake the

³ SOSIG may be found at <http://www.sosig.ac.uk>

digitisation of unique pamphlet material (i.e. full content) to be linked to electronic thematic guides.

Summary: the list above is illustrative of how things have changed in the UK in the last three years. It is both invigorating and intimidating to find that BLPES is involved in such a wide range of digital library developments of relevance to social science. These projects have implications for the jobs and skills of all library staff; for collection development policy (renting much more electronic material rather than purchasing it); for expenditure patterns - perhaps requiring more research and IT staff; for users - who are almost uniformly enthusiastic - only impatient for more critical mass (especially electronic backruns of journals); for the university as a creator and manager of intellectual property. Clearly much remains to be worked through, but the shape of the future is beginning to emerge.

Digital Libraries and Universities

Now that Digital Libraries are moving towards reality, it is important to set them in context and to ensure that we do not see them as discrete entities. There is a need to focus on the Digital Library as a support to learners and researchers. Information per se is not that important. We must seek a knowledge based, research focus and not an information focus. Mike Fitzgerald, Vice-Chancellor of Thames Valley University has described the power, space, learner, responsibility nexus. He forecasts a paradigm shift in the balance between these attributes. It is then important for the library to be aware of this shift and to set the digital library in a context where it is not simply an interesting development in its own right but is clearly contextualised within this wider institutional agenda and offers support to learners, teachers and researchers, mirroring rather than dictating their changing needs.

A realistic future?

The short answer to the question must be „Yes“. It is clear that the hybrid library is already well on the way, technically, experimentally and supported by users. The major outstanding issue is to discover how business and economic models will work out, although one must allow that a greater deal of experimentation is going on in projects and by commercial publishers. That said there is a continuing danger of experimentation being driven by the science model and large commercial interests despite the fact that in most universities science will represent half or less of academic activity. Similarly if one looks at scholarly communication the norm is a small learned society with a single journal and a newsletter not the large media interests of global conglomerates. There is a real

need for the academy to explore how scholarly communication will be conducted and financed in future, lest a simple financial model emerges which constraints academic need.

It seems worth concluding this look at how present programmes are defining the future of the Digital Library with some interesting predictions of digital library developments and projected date lines. Drawing on expert views in USA, Mike Lesk in his new book has taken advice from a wide range of sources, including such well known thinkers as Clifford Lynch and Ken Dowlin. As a result he predicts:

- 50% of Library of Congress digitised - 2043
- First virtual large library - 2016
- Free network access in public libraries - 2003
- Virtual reality in libraries - 2005

In short - the Digital Library is coming, and coming soon, so get involved!

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HOW THE VIRTUAL BUSINESS LIBRARY MEETS THE VIRTUAL RESEARCHER - A CASE OF A CUSTOMER DRIVEN INNOVATION*

By Eeva-Liisa Lehtonen (PhD) and Teppo Savinen (MSc Econ)

The Librarian as a Public Entrepreneur

"In my view, the librarian is a public manager" - public entrepreneur - says Mr. Mark H. Moore from John F. Kennedy School of Government, Harvard University, in his article about public service management development (Moore 1997). For the entrepreneur risk-taking is self-evident as well as the need for innovations as the basis of a dynamic strategy. Innovation is the ability to look forward: the business school librarian of today faces the entrepreneurship as a challenge for future.

Helsinki School of Economics and Business Administration is the second oldest business school in Nordic countries founded in 1911, two years after Stockholm School of Economics. It is the largest school of economics in Finland - an independent state institution at university level with 5.000 students and 280 teachers - yet small in international comparison. The school has long-standing cooperation with the American and European academic communities.

One of the benefits of a small business school is flexibility. That has also been the keyword when developing our library and information services. As the national resource center for economics and business sciences in Finland the research library is serving a great variety of customers: it is public in the Nordic style i.e. anyone can use our services.

Identifying the customer and market segments has become more and more important also for the Finnish research libraries while the resources have been cut by the government in the 1990's. The basic library services - catalogues, circulation etc. - are free of charge. If a library unit wants to achieve long-run financial performance, it must create and deliver new products that are valued by customers.

* Paper presented at IFLA 1997, Copenhagen

Customer Driven Approach

Helsinki School of Economics library - the organization of 28 information specialists and library professionals - has a long dynamic and innovative background in developing online products for local and international markets since the 1970's. In fact product innovations have been part of the library strategy during the last twenty years. The brand name HELECON (HELSINKI School of ECONomics) Information Services became familiar in 1989 when our first cd-rom product "Helecon International" with references and abstracts to economic and business journals was launched in London Online Meeting. In the 1990's it became obvious that if the library wanted to serve the customers better also fulltext databases should be developed.

The vision of the future was that of digital library combined with new ideas of knowledge management (Hedlund 1994, Kulkki 1997). The question was: how should we continue? We had our online and cd-rom services, we had our homepages in Internet and we were most interest in electronic journals. We were working hard with all those world wide web resources and found Internet a very important delivery channel. We agreed that the strategic starting point for all development work should be the idea of creating value to our customers and the focus on customer needs (Hall 1991). Also we had to remember the realistic budgets and time frames: the fact that any new project should be self-supporting, self-financed without governmental money.

Thomas Kuczmariski emphasizes the innovation mindset, patience and a desire to discover as key elements when looking for new innovations (Kuczmariski 1996). Stewart Bray says: "If a company wants to be innovative, it has to provide a forum for its staff to provide new ideas, and for those ideas to be nurtured, sorted, encored, discarded, tested and commercialized" (Bray 1995). The case of our product innovation "Helecon Enterprise cd-rom" includes both elements: the innovation mindset of the customer and the ability of the staff to find out the new values of the researcher.

How did it all happen? The innovation process began with complaints of a researcher asking why it was so difficult to find company reports in our collections. Realizing that she needs that kind of information continually the researcher contacted the information specialist on duty asking whether there is a database containing such data. Unfortunately no such commercial database could be found. What is more - no such database was even produced. The simple question "Why don't you collect this material on cd-rom?" was the impulse for the interactive development work between the library and the customer.

As a consequence of discussions it was decided to form a project group to define the development process and to investigate the real need and market analysis for Finnish company information database. The teamwork approach was essential: the customer, one cd-rom specialist, two information specialists and the librarian met for the first time in September 1994. Next initial contacts were made to some companies requesting their willingness and possibilities to provide material for the database. The idea was that companies included should be listed in the Helsinki Stock Exchange. The negotiations were successful and the feedback was positive. At the same time new technologies were emerging: Adobe Acrobat, a universal electronic publishing tool was launched to the markets. The preconditions of the new product - "HELECON Enterprise cd-rom" - seemed to be good at the end of the year 1994.

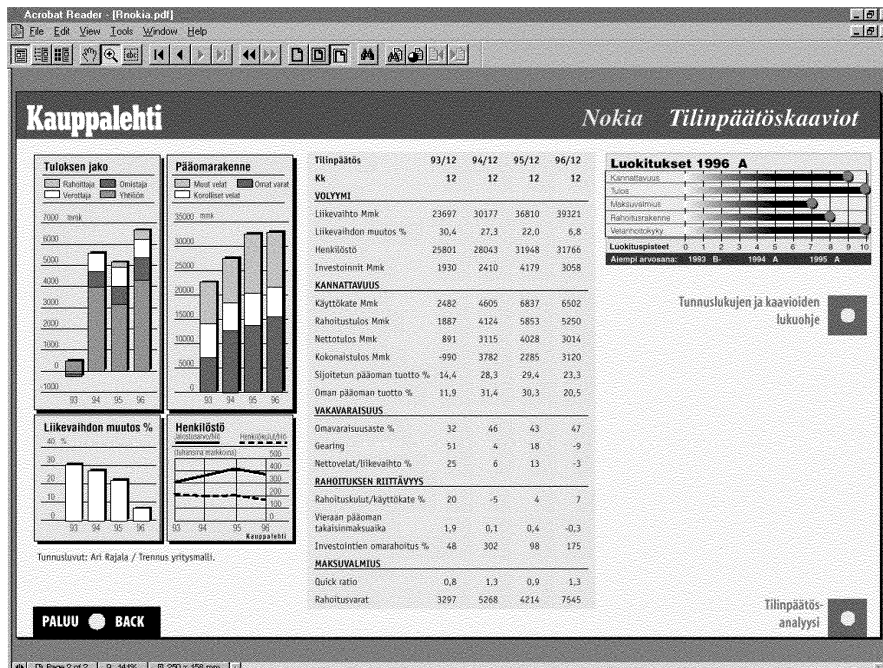


Figure 1: The graph and table page of a financial statement analysis of a company from the CD-ROM "Enterprises 1997"

Choosing Technology

It was obvious that existing experience of database and cd-rom production at the Helsinki School of Economics Library could be used as the basis of the new project. There were however entirely new elements to be considered. Annual reports contain also pictures and graphs that are essential part of the story. So it was not only a question about a full-text-database but it would be also need to be able to incorporate any non-text information found within the documents - preferably in color. Other requirements included the possibility to use numeric company information for analysis purposes.

In the beginning different paper scanning methods were considered. That approach had however many drawbacks. Firstly it would have been extremely tedious process. The sheer volume would have been overwhelming. Also the sizes and shapes of reports differed considerably making it hard to process them efficiently. Secondly good quality scans - especially in color - would have taken so much disk space that all the documents would not have fitted on one cd-rom. And thirdly textual information would have been lost. i.e. searching would have been impossible. That would have reduced the product to an electronic archive of paper documents.

Instead of scanning the documents another approach was selected. Since all annual reports are produced using computers it should be possible to get the electronic version of documents before the paper form. Although this approach had it's disadvantages too - especially different computer formats - it offered the best possible quality of the product. Fortunately in 1994 a new software product (Adobe Acrobat) enabled viewing of formatted documents. With this software we could take original documents in electronic form and process them to unified format that users could view on screen.

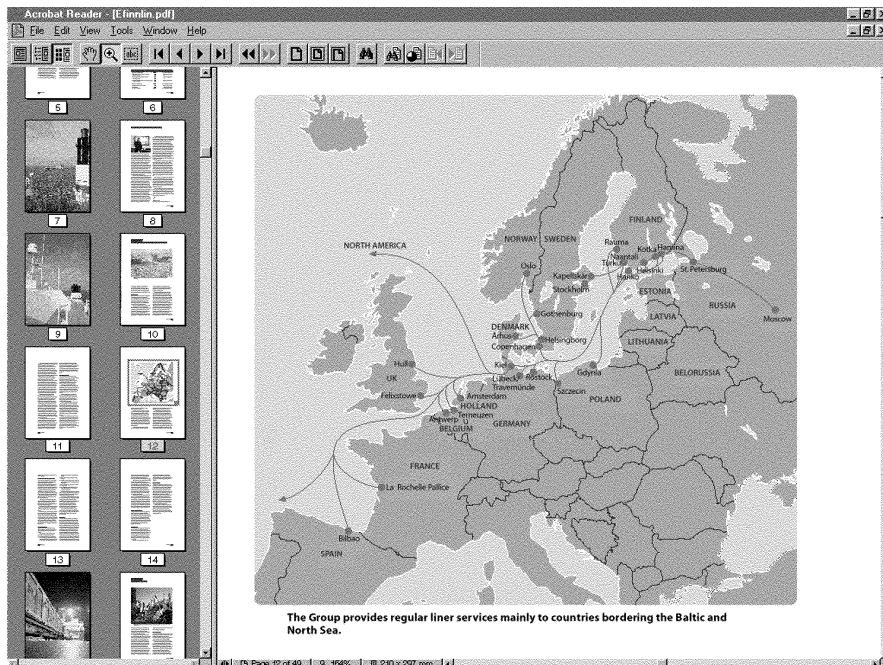


Figure 2. Closeup of a company's annual report page from the CD-ROM "Enterprises 1997"

Co-operation with Data Providers

Although participating companies had positive attitude towards our project it doesn't mean that there were no problems. We started contacting companies in the first months of 1995 - and that was too late. At that time the annual reports were in the finishing phases for most of the companies. In principle the participation in the project was free of charge but providing the data to the library in electronic form did cause some internal expenses to companies and in many cases the PR budgets had been planned in the previous year.

Finding the correct contact with the partners was not easy either. Also trying to explain what we were doing proved to be difficult including all copyright problems concerning textual data, pictures and graphs. And after all we were dealing with new technology that had just recently surfaced and not even all professional people were aware of it - let alone people who could make the decision whether the company would participate or not.

While initial contacts were made most of the practical work was usually done with the representatives of the companies - typically advertising agencies or print houses that did the actual annual report. Again finding correct contact was quite hard at times. Sometimes we had problems with the last minute changes made to the annual reports. And lastly advertising agencies and print houses were able to integrate our needs to their overall process of annual report production reducing costs further.

Another dataprovider besides the participating over one hundred companies was the Helsinki Stock Exchange. From them we bought background information covering publicly traded companies. This information included stock trading history for the past five years and the stock exchange trading newsletters for the previous year.

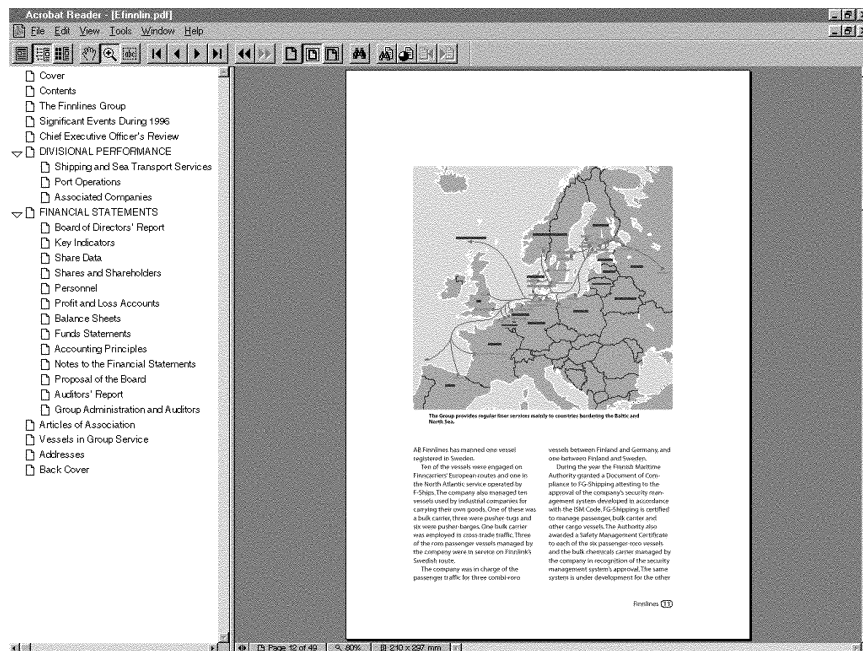


Figure 3. Company's annual report page from the CD-ROM "Enterprises 1997"

Domestic and International Customers

The product innovation process started with the consumer problem and launched with the commercialization: the researcher who gave us the original product idea

is nowadays our paying customer. So are quite many other companies who have attended to the project. Most of the interest is domestic due to the contents - the Finnish company reports. However there seems to be also some interest outside Finland because the 1996 edition included 101 reports also in English. The third edition of "HELECON Enterprise cd-rom" has been published in August 1997.

Feedback

"Innovation is not a science. Innovation is an art. You can tell if a new product or service will be a success or failure only after it has been completed and launched into the marketplace. Its success is then determined by consumers, who judge its value or worth based on their own criteria", says Thomas Kuczarski in the book "Innovation. Leadership Strategies for the Competitive edge" (1996).

It seems that we have succeeded with the new product: the feedback from the partners and the customers has been very positive. The comments from our users tell us that the easiness of the system has been appreciated. User friendliness has been one of the main goals in the design of the product so that kind of response is most gratifying to hear. Both user friendliness and simplicity will remain one of the basic design objectives in the future as well as when new features are added to the product. The professors of business schools and polytechnics have found the cd-rom most useful as a teaching tool.

On the cd-rom all material is in one place, as one collection. Having them all in one place can be understood in two ways; firstly all the companies are together making it easy to compare them and secondly different kind of information about one company is available so that broader picture can be established. Some users found that maintaining the original form including pictures and graphs was valuable to them.

On the wish list we can find things like ability to move numeric information from the company report to spreadsheet applications, continuous updates (i.e. World Wide Web) and naturally more companies should be included.

The practical interactive cooperation with the leading Finnish companies has been interesting and useful for the library and the information services: we have got new contacts and new customers.

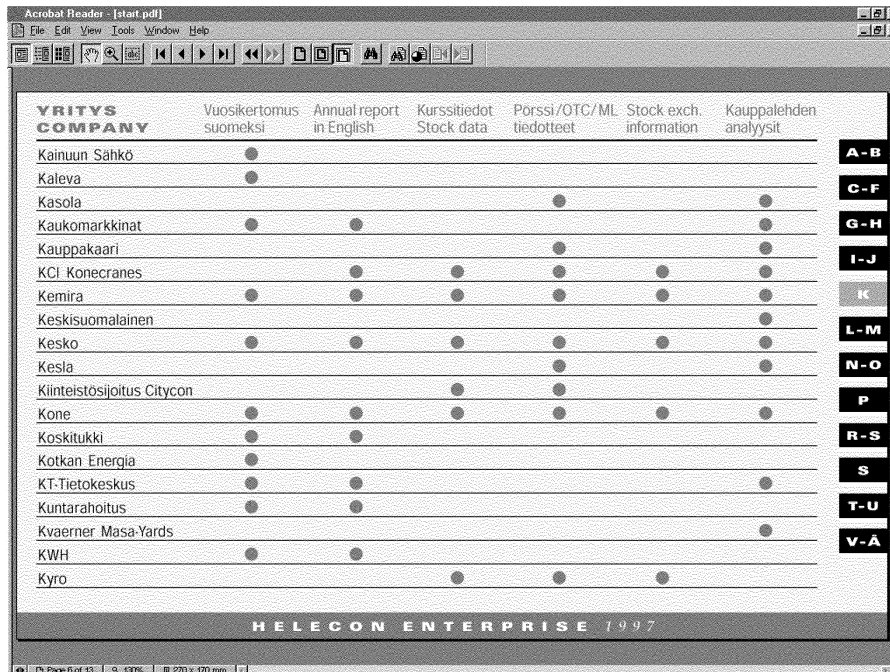


Figure 4. An index page from the CD-ROM "Enterprises 1997"

The Future - World Wide Web

New features are added every year and general trends and user feedback are closely followed to make the product even better. In 1996 version the full-text retrieval ability was added. Current development includes having more material and world wide web (WWW) distribution. This year there were more companies cooperating with us. Also more information is available: latest addition to company data includes analyses based on financial statements.

Even if the rumors of the death of cd-rom technology are exaggerated, there will be changes in the future markets. Cd-rom developers are reporting for so-called hybrid discs - products that combine cd-rom data with information held on WWW. (Blake 1997). World wide web version will be part of the future plan of the "Helecon Enterprise cd-rom". Today many companies not only want that WWW version is provided but in fact actually insist on it. WWW distribution creates new challenges to the project and probably the form of WEB version is not going to be identical to that of the cd-rom. Most obvious benefit of WWW is that it can be continuously updated - i.e. when company report is ready it can made

available immediately instead of waiting for all the reports to be ready at the same time.

Potential future developments include more tools to analyze numeric data, generation of graphs based on material on disk, comparison tools to make it easier to find similar information on other companies and e.g. moving picture and sound provided that appropriate material can be obtained. This could include TV news reports, paid advertisements by participating companies etc. Full-text newspaper articles is one possible extension.

In general future developments should concentrate on making the product comprehensive archive of company information were all the needed data could be found in one place. At the same time the use of this product should be simple and efficient and perhaps even enjoyable.

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**THE JOURNAL IN FOCUS -A REPORT FROM AN
INVESTIGATION OF JOURNAL USAGE AMONG SWEDISH
RESEARCHERS IN THE ECONOMIC DISCIPLINES***

By Catarina Ericson-Roos

Background

During the last few years there has been an intensified focus on the journal. Prices have been spiralling, budgets declining, the demand for journal articles have increased as has the number of students and scholars. The handling of journals demands staff, shelf-space and money. At the same time technology has opened up possibilities to new solutions.

User studies is the conventional instrument when libraries want to find out if their journals are read and if the selection is the right one. Before the age of electronic fulltext documents one would analyze the results and adjust the subscriptions to use and budgets. Now, there are additional solutions. Printed journals can be replaced by electronic versions. Table of contents can substitute journals which are seldom used or supplement those not subscribed to. Quick document delivery completes the service. At any time of the day or night journals information can reach scholars regardless of the localisation of the library. What implications does this have on the journals acquisition policy?

At the library of Stockholm School of Economics, we wanted to analyse journals usage in order to get a better background knowledge for further strategies. We started by carrying out a user investigation during 1994. The result showed that 11% of the journals were never read and that 34% were read only 1-5 times during a year! We went on with a test of *UnCover* and quick document delivery. Could printed journals be replaced by table of contents? With subsidized prices we thought a quick delivery would be an attractive substitute for journals not subscribed to. However, in spite of various ways of marketing, the new service was no success. After half a year only 20 articles had been ordered from the 30 journals in the experiment. 18 of these were from the same journal and ordered at the same time by the same person!

* Paper presented at IFLA 1997, Copenhagen

We could only draw one conclusion from the experiment: the information that TOC provide is not enough. But such a statement had to be verified or contradicted. We had to find out why, we had to go deeper and we needed to find a strategy for the future in handling journals. How were we to a) adjust the library to scholars needs, b) adjust our journals handling to new technique?

In our role as a national resource library we decided to make an investigation in form of a questionnaire and money was applied for from BIBSAM, The Royal Library's Office for National Planning and Co-ordination. Participating libraries were the economic branch libraries at Uppsala, Gothenburg and Lund University, the university library in Umeå as well as the library at Jönköping International School of Economics.

Questionnaires with 36 questions were sent out to 1,200 scholars in economics, business and finance, statistics and economic history. The response rate was 70%.

The purpose of the survey was to

- find out how scholars use journals
- find out how scholars search for journal literature
- find out about scholars attitudes to electronic journals
- find out how scholars use library collections, library services, on-line facilities as they pertain to journals
- get to know more about the target group (differences in "journal-behaviour" between disciplines, between young and old, between teachers and researchers, full-time and part-time researchers)

Results

One assumption in the investigation was that journals are more important than books and that some disciplines are more dependent on journals than others. As expected the results show that the use of journals is indeed frequent. 77% use journals *at least* once a week (figure 1).

45% state that journals are more important than books *in research* and 41% that books and journals are equally important. Only 9% find books more important. In *teaching*, however, the figures come the other way round. Here books are more important to 50% of the respondents, to 35% books and journals are equally important and only 6% regard journals as essential in teaching.

These results were not unexpected. But the figures show more. They show that there are obvious differences between the disciplines. The most intensive use of

journals is found in economics, whereas all the other subjects have a lower use (figure 2). Scholars in economics use journals more often and they read journals rather than books. Books are most important to scholars in economic history and statistics.

In teaching the importance of journals is lower. Journals are often too theoretical for students, whereas books offer better introductory material as well as breadth and summaries. Particularly noticeable is the high use of books in the teaching of statistics.

The use of journals varies according to age and level of research. Young researchers (under 40) with a high research activity read journals more often than do old researchers.

The main reasons for reading journals are to keep up with the research front and to follow the developments in the disciplines. Journals are also used for finding references to other works, although not to the same degree. There is a difference in behaviour between young and old scholars. The former look for the latest research results as well as for references, whereas the latter are primarily interested in checking up the current state of knowledge in their disciplines.

How do scholars keep abreast with the developments in their fields? Do they need libraries? Before the electronic era we asked ourselves if the printed bibliographies were used, now we wonder if scholars use the bibliographic databases. The ranking list for sources of information is as follows:

1. References through other publications (62%)
2. Checking of journals in the library (59%)
3. Contact with colleagues (55%)
4. Checking of journals in the departmental collections (42%)
5. Personal subscriptions (37%)
6. Searches in bibliographic databases (36%)

Other sources, such as printed bibliographies, current awareness service, or commercial document deliverers, are much less used.

Bibliographic databases are used to a much higher extent by scholars in economics than in the other disciplines (figure 3). There is a clear correlation of age - over half of the researchers under 30 use this service but only a fifth of those over 40.

Almost 70% of the participants find the library collections good or very good, although there are local differences. On the whole scholars in economics and

statistics are more pleased with the library collections than are those in business and economic history.

But journals are not only held in libraries. Departments subscribe to journals and there are personal subscriptions. It was of crucial interest for the participating libraries to know to what extent these collections are used. 31% read journals mainly in the library, 34% at their departments and 30% use both collections.

Of those who use departmental journals, 75% give the physical distance as a reason for not going to the library. 40% state that most of the journals needed are held by their departments and 35% that these are the most important journals. 27% answer that certain journals are held *only* by the departments. As departments probably do not have very large collections, smaller collections of core journals apparently meet these researchers' needs.

Lack of time is an important factor. The results show that libraries located near the departments are better used than are those further away. Age does also affect the behaviour. Older scholars prefer to read journals in the department as their time is limited. They are satisfied with having access to a smaller collection of core journals, whereas young scholars need the broad choice of journals offered in the libraries.

Free comments show that scholars find it much easier to read journals in their departments. There are services there which they like, such as the circulation of table of contents (photo-copies from the latest journals issues), nearness, the journals can be taken to the office, they can be read at any time of the day or night and they can be easily photocopied. The selection of journals can be closely tailored to what is needed in the research programmes. It can also be easily changed. However, it is pointed out by several scholars that the departments cannot keep old volumes and that this is an important function of the library! In a question concerning the need for old volumes the answers vary depending on subject and age. Long runs of journals are particularly important for economic historians and statisticians, for young and for full-time scholars. Scholars above 40 with less intense research activity state that the last two years of a journal often suffice.

Do scholars use our OPACs? The use of the on-line catalogue for journal title searches is not very high. Over 50% seldom or never search for a title. The figures for searches for journal issues in the periodical modules are even lower. Over 80% use this possibility seldom or never (figures 4 and 5). The main reasons given for not using the catalogues are that they did not know of the possibility or they do not know how to search. Some scholars do not need the catalogue as they already

know what journals the library holds, others do not use the library journals at all. The possibility to search for particular issues does not seem to fill a great need. Scholars know with what intervals a journal is issued, or they do not look for a particular number but rather a particular subject. Some scholars find it easier to go to the library than to search the catalogues! Others point out that they find the systems difficult to use. (The library systems used at the time of the investigation were Libertas, VTLS and Dobis/Libis).

The use of the OPACs follows the use of journals. The stronger the need for journals, the higher is the use of the catalogue. Consequently scholars in economics search for journal titles and journal issues to a higher degree than do those in other subjects.

Not unexpectedly the knowledge and use of catalogue facilities is greatest among young scholars.

There are local differences, probably depending on the library system itself and on promotion and user education.

We know that scholars prefer to remain in their offices. But what do they do when journals are to be found only in the library? Can we expect them to find their time and stroll away to the library? Yes, we can. 67% do go to the library in such cases. However, they also try other ways (so as to avoid having to go there!). They order copies, they ask their departments to subscribe to the journal, they buy it themselves. Scholars in economic history differ from others in using the library to a higher degree than the average (88%, figure 6). Their frequent use of books probably makes them more acquainted with library.

When a journal is not held by the library or the department, the interlibrary loan service fills an important function. 75% of the participants order articles this way. Again economic historians show a higher figure (84%), probably due to the interdisciplinary character of the subject. Scholars with a higher research profile use the interlibrary loan service more often than do those who primarily teach.

What is important in an article? Why did our experiment with table of contents instead of printed journals fail? What is the scholar looking for in a journal article? What makes him or her decide if the article is worth reading at all? The results from this investigation agree with others of the same kind. Reading the abstract is of utmost importance (over 70%). Looking at title is also essential and ranked third is browsing. If one cannot read the whole article, one reads the abstract, very often in combination with the beginning or the end of the article. Abstracts and title have to be available and browsing must be possible for the

researcher to form an opinion of the value of an article. In economics abstracts are absolutely essential for evaluating a journal article. It is important to know which method is being used and this cannot always be described in a title. Economic historians and statisticians, on the other hand, are less dependent on abstracts.

At the time of the investigation electronic journals were not very well known. Since then there has been an explosive development with parallel editions from most big publishing houses coming on to the net. In March 1996 only 5% read e-journals regularly and 22% sometimes (figure 7). In the questionnaire "electronic journal" could mean anything from a newsletter published on the Internet and a well-known, peer-reviewed journal read in fulltext on *ABI/Inform*. Attitudes are cautious and curious but on the whole positive. As the main reason for not reading, a majority say that they don't know how to find e-journals on the net. Some scholars wonder about their quality and value, as reputation, status and job promotion depend on publishing in good journals. Others are not prepared to read from the screen. Those who do read e-journals regularly are the younger scholars and scholars in statistics. Economic historians are the least interested. 91% of all participants want to know more about e-journals.

The last questions concerned article delivery. How good is the knowledge of *UnCover* and other commercial document deliverers? How are they used and can they substitute journal subscriptions? Only 15% use *UnCover* on a regular basis and then more for subject searching than for table of contents information. As a reason for not using *UnCover* the majority give "lack of possibility to browse" (61%) and "lack of serendipity" (71%). The need for quick delivery (and quick delivery does not mean a day or two, but rather an hour and not more) is sometimes important, but seldom so great that scholars are prepared to pay extra for the service. The greatest need for quick delivery is to be found among scholars in economics and among young scholars.

Summary of results

There is a clear difference between young and old scholars. The young ones do more research and use journals to a higher extent than their older colleagues. They need the library with its large choice of journals and old volumes. They use all possible channels to find information, the traditional as well as the new, electronic ones. Their attitude to new technology is positive and open. Old scholars read a smaller selection of journals and they prefer to have them in their offices (departmental or private subscriptions). They need old volumes less often. The incitement to go to the library is therefore weak. They search new issues more

actively with the aim of checking up developments in their research fields. They know less of electronic journals and information sources.

Economics stands out as being the most research orientated discipline. The use of journals is most frequent here as is the use of electronic information sources. Scholars in economics use the library to a higher extent than others, their need for quick article delivery is more strongly pronounced and they are most satisfied with the library selection of journals.

In *business and finance* we find more academics with a high percentage of teaching. Their use of journals is lower. On the other hand books are still important for their research. The knowledge of electronic information sources is low, visits to the library few, and the need for quick document delivery little. There is a high tendency to see to it that the department (rather than the library) subscribes to a journal or to take on a personal subscription.

Also in *statistics* the use of journals is low and the percentage of teaching fairly high. The use of books is particularly high in this subject. Scholars in statistics find the library collections very good, but use them least! Their knowledge of electronic journals is very good and they know best of all how to find them.

Economic history differs from the other subjects in many respects. The research is based on historical material and as a consequence it is a book-reading discipline. Journals are much less important and those which are must be kept in long runs by the library. There is little need for rapidity. The library holdings are important for economic historians and they have learned to use them. They know the on-line catalogues best, but they also work in a more traditional way to find their references. They use printed bibliographies rather than on-line sources. Their interest in electronic journals is low.

There are *local differences* in the investigation, which are of great interest for the participating libraries. They will not be considered in this paper, however.

Conclusions and future strategies

The investigation has shown that journals are frequently used, that they are more important than books and that they must be near at hand for instant use. They must allow browsing as well as a serendipitous approach. Older scholars prefer to read journals in their offices. As subscriptions in the departments are selective, their need for journal titles is consequently limited. Younger scholars, on the other hand, need a broader selection and therefore use the library more often. Journals not held by the library are sometimes needed quickly, but rapid document

delivery service must not cost. Electronic information is offered (bibliographic databases, on-line catalogues, table of contents service), but it is not always used, particularly not by the older scholars. What are the problems and how should they be solved?

We will have to cut down on the number of subscriptions, but we must do it in the least harmful way. Not only do prices rise, we must also budget for parallel subscriptions for e-journals, i.e. an added cost of about 20% per title.

We therefore need continuous user studies. We cannot cut down the number of subscriptions without knowing what is really used and needed.

We need to know how students use journals. This investigation should be followed up with one directed to the undergraduate students in the economic disciplines. What kind of journals do they use? How often do they read journals and at what stages in their education do they need journals as opposed to books?

The core journals used by our local researchers have to be identified as have the core journals on a national level.

We will have to share our resources even better than we already do. We will have to do it on a local level, whenever it is possible. To have several parallel subscriptions within an organization is expensive, but may also be necessary to provide for effectiveness and flexibility in the scholarly work. On a national level there is already effective resource sharing. The Swedish national union catalogue *Libris* is used for interlibrary orders of journal articles. Most libraries offer a quick delivery service when asked for.

Electronic versions of the printed journals is *one* solution for the future handling of journals. E-journals can be shared by many. Several paper subscriptions within an organization can be substituted with *one* subscription for a paper *and* electronic net-worked version. On a national level national licenses are the apparent solution.

Promotion of e-journals is crucial. Particularly older scholars have to be told and taught about the advantages of e-journals. The young scholars are more positive than the old ones. They have the potentiality to find added value in the electronic medium. They are the ones to carry new technology into the future methods of doing research. Maybe clicking and surfing will become tomorrow's browsing and flipping through printed pages.

The less frequent journals can be given their electronic place through current awareness service, through databases like *UnCover*, through links to table of contents on our homepages.

We have to evaluate the use of electronic journals and the journals themselves. But many projects, experiments, investigations and evaluations are already taking place in the library world. These must be studied and the results applied to our local settings.

We have to find a flexible way of balancing through the rapid development of article provision. A lot has been written about access versus holding. There lies a temptation in replacing our printed journals with access to table of contents and on-demand service. It might seem a solution to let our journals collections become wholly electronic. But this investigation has shown that there has to be a flexibility based on strongly variegated needs. We must strive to offer both access *and* holding. Access and resource sharing for those journals which we know are not frequently used and which can be shared with others, holdings and ownership, both of paper *and* electronic versions, at libraries *and* departments, for those journals which we have identified as being of core interest for scholars and students in the economic disciplines.

The Journal in Focus.

Questions

1. Sex?
2. Age?
3. University?
4. Department?
5. Full-time or part-time employment?
6. Full-time or part-time researcher?
7. How often do you use the computer in your office?
8. Which of the following data-services can you reach from your office?
 - a) the library on-line catalogue
 - b) bibliographic databases
 - c) WWW on the Internet
 - d) electronic mail
9. How often do you use journals in your research/teaching?
10. How important are journals compared to books in research?
11. How important are journals compared to books in teaching?
12. Why do you read journals?
13. How do you keep abreast of the developments in your research field?
14. How is the coverage of journals in your library?
15. Does your department subscribe to journals?

16. To what extent do you read journals in your department in comparison to library journals?
17. If you prefer to read journals in the department, give reasons why.
18. Do you use the library on-line catalogue to search for journal titles?
19. If no, give reasons why.
20. Do you use the library on-line catalogue to search for journal issues?
21. If no, give reasons why.
22. If very important journals are held only by the library (and not by the department), what do you do?
23. If a journal is *not* held by the library or the department, what do you do?
24. Which information do you need in order to decide if you want to read a journal article?
25. If you do not read the whole article, which parts do you read?
26. Which time span of a journal is most important for you?
27. How often do you read electronic journals?
28. If you never read electronic journals, give reasons why.
29. Would you like to know more about electronic journals within your research field?
30. What advantages and disadvantages do you find with electronic journals?
31. How often do you use *UnCover* or similar databases?
32. If you use *UnCover* etc, in which ways do you search for information?
33. Do you think that printed journals can be substituted by commercial document deliverers such as *UnCover*?
34. If no, give reasons why.
35. Is quick document delivery always important to you?
36. Would you be prepared to pay £15-20 extra for rapid delivery (within 24 hours)?

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Figures

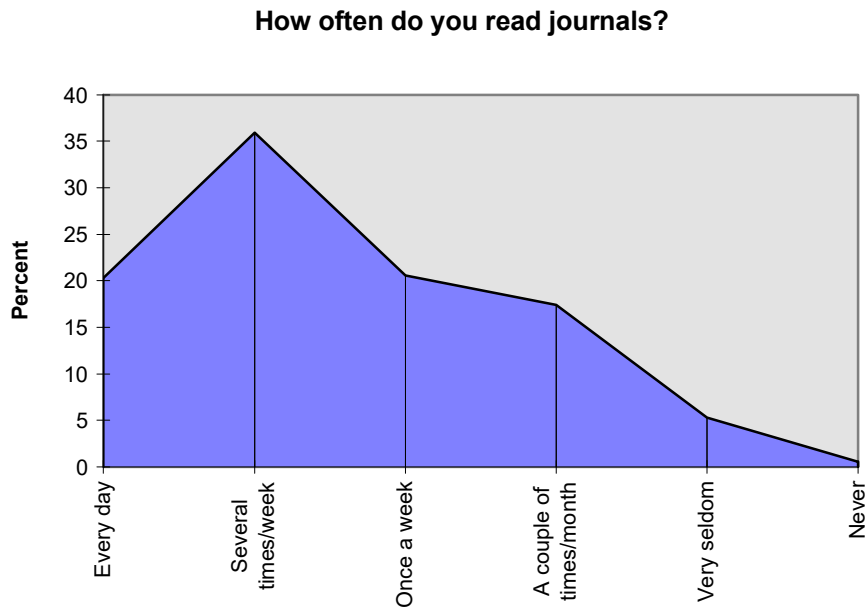


Figure 1.

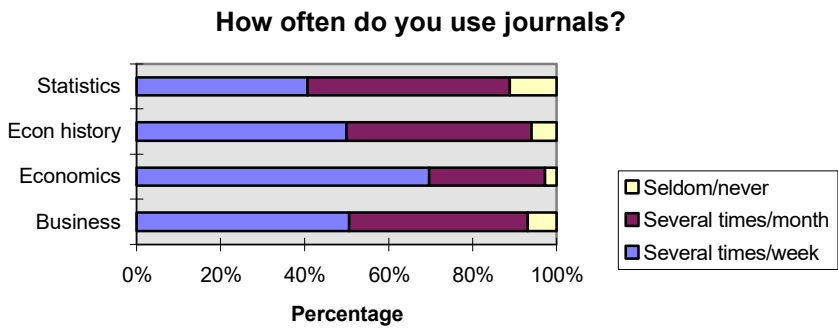


Figure 2.

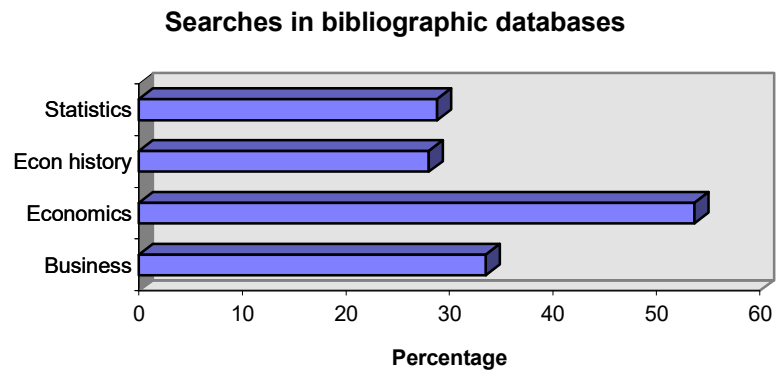


Figure 3.

Use of on-line catalogue for searches on journal title

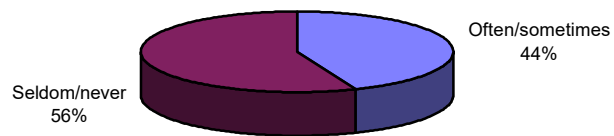


Figure 4.

Use of on-line catalogue for searches on journal issue

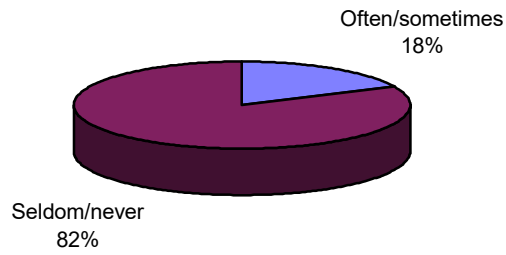


Figure 5.

What do you do when a journal is only held by the library?

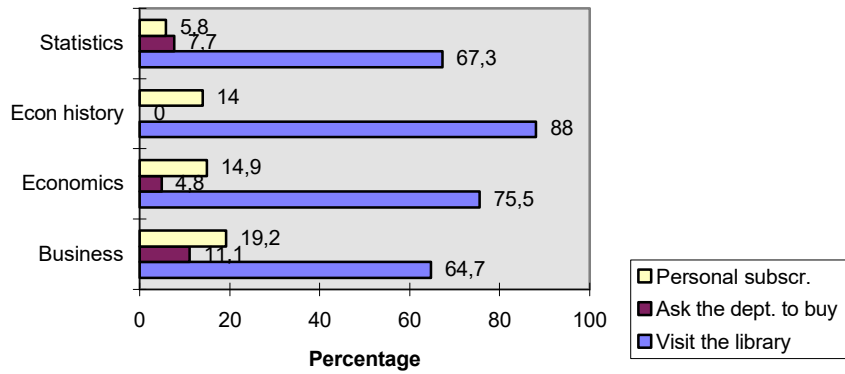


Figure 6.

Do scholars read electronic journals?

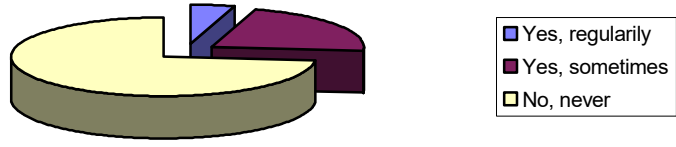


Figure 7.

USING A PRODUCT DEVELOPMENT MODEL TO CREATE NEW EMBASSY PUBLIC AFFAIRS SERVICES FOR BUSINESS

By Nancy Rajczak

Public Diplomacy

For the past 50 years, the United States Information Service (USIS) has "been telling America's story to the world". As the public affairs section of American embassies and consulates, USIS is responsible for public diplomacy, which means communication between people as opposed to governments. Public affairs tools include media placement, cultural programs, professional and academic exchanges, publications and information services or libraries. Open libraries have often been the most tangible expression of American public diplomacy. In Germany, a network of America Houses was established in the late 1940s, under the auspices of the United States Information Service. Small reading rooms, which later blossomed into lending libraries modeled on American public libraries, were the core of cultural centers which helped to fill the void created by the devastation of World War II.

The traditional American public library is however no longer the model for USIS centers in Germany and around the world. Information technologies and the knowledge that ideas, products and activities can be delivered in digital form are fundamentally transforming the way governments, corporations, educators, media organizations and individuals live, work, govern and communicate. Reflecting these changes, libraries are no longer repositories of materials but rather access points to information sources, more and more often in electronic formats. The information revolution, combined with political and economic changes, challenged USIS libraries to reinvent their services to match the new world of the 1990s.

Business Information Centers

It was in this context that USIS libraries in Germany embarked upon a process of re-defining and reengineering traditional services. Business Information Centers were established in all Amerika Haus USIS centers in 1994. The transformation to information resource centers was part of the U.S. government's reinvention

program which encouraged government agencies to work together more efficiently and to integrate electronic information processes into standard work routines. In a new partnership with embassy and consulate offices of the Department of State and the Department of Commerce, the United States Information Service was charged with the task of developing a range of new business information services.

Product Development

The first Business Information Center in Germany was officially inaugurated in January 1994 in Frankfurt. The time period allocated for this fairly radical transformation of the library, symbolic of the major changes that were taking place in government and society, was very short. We decided to approach the project from a market research point of view. Using a product development model, "information products" were created to represent the services and resources of the new Business Information Center, which would provide both walk-in research facilities and remote access reference and alert services.

Our first step was to define our customer base. Our new consular and embassy partners in the reinvention process were high on the list. We would provide these offices with updates on U.S. and European business issues and policies, as background for their activities at trade fairs, in government negotiations and in their regular dealings with business contacts. Another new customer area was the multinational business community, as represented by international and local chambers of commerce, economic development agencies, international banks and professional organizations. We discovered that local government officials and journalists, traditional USIS customers, also had an interest in policy information from a business and trade perspective. One of our biggest worries was how to deal with more general business audiences - private investors, exporters, job and internship seekers - who would understandably be attracted by new business resources and services.

Our next step was to define possible products for these targeted audiences - products that were realistic in terms of our short-term startup skills and resources. The products were to be fee-based, an element that we felt was necessary both to control demand and to partially recover costs. We analyzed standard guides to business literature and found that much of the information categorized under general business conditions - political and regulatory issues, economic indicators, social and demographic trends, regional surveys and background on media and professional organizations - was already available in traditional USIS libraries in print, CD-ROM and online sources.

Our first product idea was a *Regulatory/Legislative Profile*, a demand-driven document-delivery service for the texts of federal legislation and regulations. We also had ample information resources for two other products - *Regional and Industry Profiles*. Drawing upon in-house collections of print government documents, subscriptions to government databases and an increasing number of websites, we had access to extensive background and statistical materials that provided information on demographics, regional economic indicators, trade statistics, international market research, export control regulations and advice to small business. We also had good background information on trade associations and publications, lobbying and special interest groups, and research organizations.

In the areas of company and product information, we devised *Company Lists*, a two-tiered, fee-based system to identify companies in specified branches. This was also a demand-driven service. At the first level of service, basic print and CD-ROM sources were accessed for a standard fee per page and per industry sector. At the second level of service, commercial business databases were accessed to provide customized industry lists on a cost recovery basis.

Company Profiles were also devised on a similar two-tier system, depending on the source.

Document delivery services for journal literature were also instituted.

With these ideas for a palette of services, we evaluated available information resources and identified new resources for acquisition, both print and electronic. We started subscriptions to a number of UMI ProQuest CD-ROM databases which provided full image text access to over 1,000 journals and to the full ASCII text of the Wall Street Journal and the New York Times. These and other CD-ROM databases were available for public independent usage.

Additional funding was provided to cover some of these new resources; however, priorities were shifted in our normal acquisitions budget to cover the costs of collection development in the area of business and economic policy. Staff access was also extended to additional commercial online services (now including Dialog, Legiscite, Lexis and the Dow Jones News Retrieval Service in addition to various subscription-based Internet databases). Through online databases, we could provide current information as required or "just in time", instead of "just in case" second guessing what we might need by purchasing expensive print resources that were not used on a regular basis. The concept of set format, demand-driven information products was also more compatible with electronic information sources. The emphasis on online databases and „information products“ reinforced the concept of fee-based services in USIS libraries. The fact

that people were willing to pay for government services was a concrete indication of their usefulness. In this new virtual environment, one of the most important management issues was training.

Staff members received additional DIALOG training in business searching. Regional workshops were held with information consultants Marydee Ojala and Barbie Keiser on issues ranging from basic business reference to analyzing information processes.

The next stage of our product development process was marketing. The products that we had devised were meant to communicate and define our goals to our customers - telling them what we could do and what our resources included. Brochures describing these new services were designed and distributed to the audiences that we had identified earlier. The new Business Information Center also started actively programming business speakers and working with groups such as the American Chamber of Commerce in Germany, U.S. and German economic development agencies and professional organizations. The programs were designed to focus on the public affairs and policy issues which were the basis of the new Business Information Center. The programs created a framework for dialogue which helped us to continue the process of developing services and resources in areas where the needs and interests of the business community were the greatest.

Evaluation

This product development process was not a theoretical exercise. We were planning and learning while we were doing. It was a difficult process and a great deal of personal initiative was required. The idealists among us were rewarded by what could be interpreted as increased prestige and respect, but also by a lot of extra work. In terms of public acceptance, the Business Information Center was an immediate success. The American Dream seemed to have arrived in Germany via the Business Information Centers. We received deluges of requests from entrepreneurs with ideas for doing business in the United States. Our "success" was however turning out to work against us. Our goal was not to provide inexpensive consulting services but to provide background on public affairs issues relating to trade and economic policy. We were spending too much time reacting to questions that were not relevant to our main goals.

In 1994, we started the first Business Information Center in Frankfurt. In 1997, we were ready to make some major changes. We had been successful in transforming our traditional libraries to electronic information resource centers. The transition however was not complete. In our initial product development

phase, we had focused too much on demand-driven services. A more proactive concept of knowledge management became the guiding principle in a second generation product development phase. Business Information Centers had been our vehicles onto the information superhighway, taking us away from circulating collections and traditional libraries to electronic sources and information resource centers. We had however been too successful. We could not supply the demand for some of the products that we had created. Rather than trying to provide customized answers to all requests received, we decided that we would start to focus on developing information solutions; to anticipate questions with source and referral guides on issues relating to government policy, entrepreneurial opportunities and management. We would not necessarily be able to provide access to all of the sources listed in the guides but we would be able to enable serious users to satisfy their own research needs by providing them with a map of the places, both virtual and physical, to go for further information. Edward Stear¹ of the Gartner Group, a leading provider of information technology advisory and market research services, advises information resource managers to think heretically about priorities and external expectations. He asks, "Is a focus on providing incredible service in an Information Resource Center's best interests? Does this attitude guarantee a future role for the IRC or does it actually work against the IRC's participation in an organization's strategic planning?" Successful heretical thinking is a continual development process which constantly challenges the implied beliefs and goals of the information resource center.

Knowledge Management

Stear's starter kit to heretical thinking lays the framework for a concept of knowledge management in information services. Knowledge management looks at matters such as access to knowledge; technologies used to house and transfer knowledge; the use of networks and teams to transfer knowledge; and the organization's ability to gather information as a value-added activity. Several converging phenomena have made knowledge management move to the forefront of business thinking over the last couple of years. These include the growth of information in digital forms; the implementation of uniform interface networks; and, the need to do more with less (in our case, less staff and less acquisitions resources).

A combination of the above factors made us start thinking about the next step in the development of our business information services and policies. In rethinking our priorities, it became more important to learn how to say no, and less important

¹ Stear, Edward B. "Success Through Heretical Thinking." *Online*, v. 21, #2, Mar/Apr 1997, p.64-66

to provide complete answers to every question. At the same time, we decided to focus more exclusively on the public affairs issues that define international trade and business relationships, questions that were more in alignment with our goals in the public affairs framework of embassies and consulates. In our initial information analysis, we had identified policy and government information as one of our strong points. We decided to accentuate this emphasis with a new information product. **Dossiers** provide brief explanations of major public affairs and policy issues - negotiations on international certification standards, bilateral trade agreements, the global information infrastructure, electronic commerce, job creation and regional economic development. They include excerpts from U.S. and European government policy statements, identify important government, research and private sector reports, and provide links to Internet sites and other sources of information. As a second generation product and marketing tool, **Dossiers** convey a more accurate image of our goals, resources and services than our first-generation, demand-driven products.

Our information management skills enabled us to get our Business Information Centers up and running within a very short startup period. Marydee Ojala¹ defined the skills that librarians will need to become the linchpins, or the knowledge managers, of the new information economy.

Information management core competencies included the understanding of information sources and the ability to access them, to deliver information in a variety of forms, to evaluate the quality of information sources and retrieve answers, to organize information and to anticipate information needs. These skills are not far removed from the traditional skills of a good reference librarian and this is basically what USIS librarians brought to the table in the addition of business information to embassy public affairs services. Ojala² however also outlined essential organizational core competencies - understanding the strategic goals of the work environment, developing expertise in managing teams, honing effective communication skills, marketing and selling products, providing vision, and consulting and solving problems. These are the skills required for the second generation development of embassy information services. Interpretation of answers, working as a team to define the question, technical advising in terms of software and hardware become important components of our new job descriptions as information resource or knowledge managers. Government offices both in the United States and in Europe are transforming their public information services via

² Ojala, Marydee. "Core Competencies for Special Library Managers of the Future." *Special Libraries*, v. 84, Fall 1993, p. 230-234.

the Internet. Librarians and information resource center managers can bring a unique perspective to electronic public information services. This requires however a transformation from a demand-driven service concept to a knowledge management usage of information resources. In Germany, the process of transformation was begun three years ago with the establishment of Business Information Centers. The staff took on the challenge by coming up with their own model for the development of these new services. The same product development model can be used to develop a new generation of information services that will continue to re-define the nature of public diplomacy tools.

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ILSES: HOW LIBRARY AND DATA ARCHIVE MEET IN ACTIVE SUPPORT OF RESEARCH IN THE SOCIAL SCIENCES

By Repke Eduard de Vries

Introduction and background

Empirical social scientific research follows a cyclic path in which collecting of data is followed by data analysis, which is followed by publication of the analysis results. The publication in turn can lead to new questions that need new data, which are again analyzed and published upon. Or data analysis and book or article have not exhausted all the explorations and answers possible with a particular data collecting effort: secondary analysis then follows a primary one. Especially national central statistical bureaus gather survey data with high relevance for subsequent social scientific research, be it academic in nature, in a supportive role for government policy making, or to inform the general public. Supra national does Europe know such survey data collections as “Eurobarometers”, funded and initiated by the European Commission¹. By consequence over the years a large body of social scientific literature has accumulated on the one hand and equally well collections of computer (survey) data files have been build on the other. In terms of responsibilities for preserving and giving access to what has accumulated and been collected however, book and data file - though coming from the same research process - have always been subject to different facilities and infrastructure.

Libraries with their long-standing experience with printed works, took care of publications but data archives as a relatively very young facility² started doing the same for what is called the “original” or “raw” data. The difference in physical appearance and technical format of printed books and computer data files and the different needed technology for long term storage and access, made suchdata archival specialization necessary at the time. As a consequence though

¹ Eurobarometers: <http://europa.eu.int/en/comm/dg10/infcom/epo/polls.html>
For data distribution:
<http://www.za.uni-koeln.de/data/en/eurobarometer/index.htm>

² From the early sixties onwards ; further information for Europe at the CESSDA Web site, that also has pointers to data archives world wide: <http://www.nsd.uib.no/cessda>

of the two different infrastructures and the different responsibility taking, bibliographic references for books and summarizing metadata for data files have been created separately and without keeping together the interrelated nature of publications and original data. On the library side does it take proper citation by authors of books and journal articles to data used, which linking information cannot be repeated and expressed in bibliographic records. Searching library catalogues therefore reveals the books but not the data. Standards have been developed for citation of “machine readable data files”³ as has the library world developed a standard for cataloguing computer files as such.⁴ But data citation is still not consistently practiced by authors and cataloguing rules have less of an impact if social science data are not part of library collections but remain a data archival responsibility.

At data archives technical documentation and publications are part of the collection but as an accompaniment to the data it self and not for lending. The study descriptions as equivalents to the bibliographic records in libraries, also focus on the research that produced the data and though they do reference to publications it is most of the time limited to the publication directly linked to data collection and first analysis results. Only some data archives and for some particular data series, maintain bibliographies of all publications that analyze particular data sets.⁵ Searching the holdings of data archives therefore gives access to data and with the help of bibliographies to just a selection of books.

A situation where data and books are separately referenced without consistent cross linking, have to be searched for in separate catalogues and are given access to by different authorities and with different facilities, has consequences for any one embarking upon new research or in general needing social scientific information. It is not possible to start with general literature searches in libraries and easily trace back publications to the empirical research and collected data that is at the heart of it. If one succeeds at all, subsequent data access would take separate catalogue searching at data archives followed by ordering (electronic)

³ Most notably the work by Sue Dodd but also see: <http://dpls.dacc.wisc.edu/cite.html>

⁴ The ISBD - CF (computer files) ; information about this standard can be found at the IFLA site: <http://www.nlc-bnc.ca/ifla/>

⁵ An arbitrary example at: <http://dpls.dacc.wisc.edu/pubs/publications.html#biblio> Another approach is having linking information to publications in the searchable data catalogue records: at the Dutch NIWI (<http://www.niwi.knaw.nl>) choose information type “data” and discipline “social sciences” and search for example for “election”

copies of the original data. Neither can archive catalogues (even when expanded with bibliographies) help with book and article searches starting from particular data collecting efforts. Properly linking data and publications would need metadata standards⁶ that take such relationships into account and coordinated efforts between authors (proper citation of data sources or writing such metadata directly themselves), the library world (referencing with cross linking in new metadata formats) and the data archives (likewise referencing with cross linking). Part of those efforts would also have to be a common catalogue search facility or some form of easy access from one catalogue to information in the other.

Some coordination has been achieved already, especially now that the last few years the Internet and related technologies make it possible for every one to at least search separate catalogues with standard Web browsers and in some cases to access data and electronic publications directly. World Wide Web techniques for linking electronic resources on the Internet but also new metadata initiatives that explicitly hold linking information to related (electronic) resources, have the potential to finally bring data and book together again for searching and retrieval. Employing Internet techniques thereby overcomes the presently separate infrastructure, management of holdings and reference services.

A few Internet related projects can be mentioned that demonstrate first attempts in this direction.

ICPSR, as one of the largest data archives and having a global coverage, together with the academic journal publishing world for the social sciences broadly, started an initiative where (printed) journal articles reporting on empirical research not only have proper citations to data used, but actually have the data itself directly available over the Internet. The latter is a service by ICPSR called the "Publication-Related Archive" where authors deposit their data electronically and colleagues and interested readers of the publication, have subsequent access for downloading.⁷ In operation now for a few years, this initiative shows and encourages data availability from the perspective of publishing and at the level of publications. It has several more potentials: with electronic journals, access to the data could right away be in the text with help of WWW "clickable links". And with consistent referencing by authors to the data as electronic resource, metadata

⁶ Dublin Core, for which the Nordic Metadata Project is a good starting point for orientation: <http://renki.helsinki.fi/meta/> And the W3C RDF (Resource Description Framework) proposals in particular: <http://www.w3.org/Metadata/>

⁷ At: http://www.icpsr.umich.edu/ICPSR/Other_Resources/pr.html

for these published articles can take this linking into account too. Which in turn would in the long run weave a web of relations between books, articles and data, at the level of catalogue searching.

SOSIG, the UK Internet “Social Science Information Gateway” , is a longer existing subject information based gateway to help researchers locate relevant material. The type of information can be diverse: from data to ongoing research projects with a particular focus. All resources have standardized descriptions and are indexed with a subject classification. In this approach the classification helps bring together social scientific information types, that otherwise would have had to be searched for in very different catalogues and by themselves miss all the linkages that SOSIG now establishes after the fact.⁸

NESSTAR, Networked European Social Science Tools and Resources, is a European Internet project under way that explicitly seeks to open up data archival holdings information, the data related documentation in electronic fashion and the data it self, to existing electronic search facilities in the library world and to new metadata initiatives.⁹ Over the next few years NESSTAR will pilot closing the infrastructural gap separating data and related publications. Initiatives like the “Publication-Related Archive” by the publishing world and ICPSR, can greatly benefit from closing these technical gaps.

Finally for Europe the initiatives by the European Commission should be mentioned that are “creating a platform for the library in the Information Society”.¹⁰ The present Libraries work programme (1995-1998, and implemented under the Fourth Framework Programmes) knows three Action Lines, one of which is based upon the recognition that the “traditional role of the library has been to provide access to resources they themselves collect and store”, but that “increasingly libraries are required to offer access to networked information resources. These resources include file archives and data sets (documents, software, images, statistical surveys, etc.), as well as interactive services” This Action Line formulates a role for libraries “in the organization and distribution of networked information and to act as the intermediary between the end-user and the resource ..”¹¹ These assessments not only recognize how data (data archives)

⁸ At: <http://sosig.esrc.bris.ac.uk/>

⁹ At: <http://dawwww.essex.ac.uk/projects/nesstar/>

¹⁰ Iljon, A. Objectives and strategies - creating a platform for the library in the Information Society. *IFLA conference, Copenhagen, 1997*

¹¹ Idem

and publications (libraries) for the social sciences have been resources with too much separate access for end-users, but also formulate new policy and how “networked information” has to play a key role in that policy.

ILSES, or “Integrated Library and Survey-data Extraction Service”, is funded under this European Libraries Programme¹² and is developing a service that enables individual users or librarians in an intermediary role, to access and retrieve in an integrated manner data and publications coming from large-scale surveys. It is an Internet service, with the Internet also being used for content providing. Experts at (specialized) libraries bring bibliographic reference information over the Net into the ILSSES system and access ILSSES over the Net to link publications with data and to index books and articles with thesaurus based keywords. Experts at data archives in a similar fashion bring data and data documentation (technical and about the research that produced it) into ILSSES. They too can apply keywords from the same thesaurus but classified now are the topics addressed with questions in surveys. Like SOSIG does keywording bring the two resources “data” and “publications” together in ILSSES. The linkage between book and data moreover is directly available when searching ILSSES as a library catalogue system: this is an improvement over the “Publication-Related Archive” initiative, where references to data only appear at the level of the journal article it self and cannot be searched for. Also is ILSSES more symmetrical: users not only have access to data starting their quest from publications, but ILSSES also makes survey questionnaires and data documentation searchable, including links from data to those publications where the data is analyzed or reported upon. The fact that ILSSES is both an Internet service but also software that content providers can apply themselves to provide this service, fits very well with the roles anticipated for libraries in the European Libraries Programme, i.e. a role: “in the organization and distribution of networked information and to act as the intermediary between the end-user and the resource .”¹³

NESSTAR creates unique data oriented services of its own (like exploratory data analysis and data visualization over the Internet) but by opening data archival infrastructure and resources in electronic and standardized ways, also creates the kind of “networked information” that enables services like ILSSES to be accomplished much more easily. Uniformly standardized data documentation and uniform data access together with longer established library standards for

¹² The Telematics for Libraries program is at: <http://www2.echo.lu/libraries/en/libraries.html> ILSSES is at: <http://www.gamma.rug.nl/ilses/>

¹³ A. Iljon ; see note 10

bibliographic information like UNIMARC, will bring very easy building blocks for new types of user services like ILSES. Developing metadata standards like Dublin Core can further catalyze this because of their orientation on electronic resources and their taking into account of linkages between resources.

ILSES - an overview.

ILSES is a project of a number of Dutch, German, French, and Irish institutes: together representing the library world, the data archiving world and the world of academic social scientific research. It is funded by the European Commission under the Fourth Framework, Telematics for Libraries and has been running since September 1996. With several modules finished and some to follow, the project will end September 1999. The ILSES Web pages and those for the EC Telematics for Libraries Program, give further general information.¹⁴

Following is a brief overview of the different ILSES modules, the standards that ILSES adheres to and how ILSES relates to existing models of Internet user services and Internet information-networking. The overview makes a distinction between modules for end-users and for content providers. End-users can be individual researchers directly or intermediaries at (data) libraries. Content providers are roughly libraries for bibliographic information and expertise, and data archives for data, technical data documentation, survey questionnaires and background information on the research that produced the data. Technically these responsibilities could be in one hand however but also could researchers or in general anyone with Internet access, be asked to collaborate over the Net and use ILSES to build up information on data and related publications.

ILSES modules

For content providers ILSES has three modules: Administrator-ILSES, LIB-ILSES and DAT-ILSES. The first one manages general matters like access authorization to ILSES and importing the thesaurus to be used. At present this is a subset of HASSET, which in turn is based upon the 1977 Unesco thesaurus.¹⁵ Administrator-ILSES also keeps the database that holds all data oriented information, all publication related information, the applied keywords to both and all further linking information between the two.

¹⁴ See note 12

¹⁵ HASSET (and its roots in the Unesco thesaurus) : <http://155.245.254.46/services/nhasset.html>

LIBRARY - ILSES is a content provider module for importing bibliographic references into ILSES, for indexing the referenced publications with thesaurus terms or alternatively for linking books or articles directly to a particular data-collecting-effort (also known as “the study”) or even directly to particular questions in a questionnaire (also known as the “variables in the data”). Bibliographic records in ILSES can also be entered and corrected or enhanced manually. The standard for importing is UNIMARC of which a subset is implemented. Though UNIMARC is reported¹⁶ to adopt in its definition a field for Electronic Location and Access (developed in USMARC as the “856 field”), ILSES for the present moment does not import this field but lets it create manually. Handling Electronic Location and Access information anticipates the growing number of electronic publications that end-users in this way will be able to retrieve directly from the Internet by means of the ILSES end-user module E-ILSES. Printed publications referenced will have to be lent in traditional ways.

LIB-ILSES recognizes monographs (books), “chapters” (from compilations, readers and so on), serials and articles appearing in a particular volume of a serial. It also handles the relevant UNIMARC fields for linking journal article descriptions to the higher level of the serial and likewise for linking “chapters” to the higher level of “compilations”. Subject classifications are accepted from UNIMARC records when they match with terms from the ILSES thesaurus.

DAT-ILSES is a content provider module for importing technical data documentation (or “codebooks”), for manually entering background information on research studies, for relating scanned images of the questionnaires to those parts of the data that hold answers to questions asked on a particular questionnaire page, and for indexing variables (or “questions”) in the data with thesaurus terms. Standards for data documentation have always been less established but DAT-ILSES recognizes one structured format and anticipates the emergence of a new standard based upon SGML.¹⁷ End-users of ILSES interested in the data itself for further analysis, can make selections and do automatic ordering with the E-ILSES module. The data is not kept in the ILSES database, nor are the scanned questionnaires. Instead the database has pointers to data archives holding the data and electronic references to where the images reside.

¹⁶ Fernanda Maria Campos Unimarc: the virtual format in the virtual age. *IFLA conference, Copenhagen, 1997*

¹⁷ The codebook format implemented is “OSIRIS”; the new SGML initiative is the DDI: <http://www.icpsr.umich.edu/DDI/>

All these content provider modules have been finished. They all are software residing at a content providers' own PC and communicating over the Internet in standardized ways with the central ILSES system and database. Content material chosen for the ILSES demonstrator are a number of Eurobarometer large scale surveys (held in a series of European countries)¹⁸ the publications based upon these surveys.

For end-users ILSES will have two modules: E-ILSES and NET-ILSES. The first module is a dedicated program that installs on a users' own PC and communicates (over the Internet) with the ILSES system under a client-server model and with SQL queries for information search and retrieval. The second is an approach where ILSES produces a number of Web pages from its information about data and publications and the relations between them. Such a Web site can be browsed, searched and retrieved from by end-users with standard Web browsers. Both modules are planned for 1998. Their goal is it to give researchers, intermediaries and anyone interested in social scientific information, an easy and integrated view on the continuous process of empirical research and its two outcomes: data and publications. Therefore a user can start from both perspectives: browsing data documentation and expand to related literature or search for publications and go to the data sources. ILSES also provides for both: data can be subsetted, combined and retrieved or bibliographies can be extracted and where possible electronic publications retrieved.

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¹⁸ see note 1

REVISING THE GERMAN SPECIAL LIBRARY STATISTICS: A QUANTITY-TO-QUALITY INITIATIVE*

By Eberhard Janke

Abstract: In times of economic turbulence, library statistics are an important and powerful management tool - provided these data are representative and consistent. Considering the special libraries' response to statistical surveys they are far from that in many countries, as has been verified for Germany and the UK. Consequently, special libraries as a whole risk becoming an "invisible segment" in the library world. In view of this "alarming" situation, Germany has started an initiative to revise the relevant part of the national library statistics. The revision strategy developed by a recently instituted expert group is described, and first work results are presented. The necessity of permanent statistics marketing for special libraries is pointed out and initial activities are reported. The paper concludes with an invitation to the library community to comment on the revision approach and to exchange experience and expertise.

Everything in order in the "world of statistics"?

In times of economic turbulence, library statistics are an important and powerful management tool allowing us to present, compare, and analyse the work results of information units. Without statistical data, no controlling, benchmarking or performance measurement can be conducted. And, more generally, without statistical data, no substantial library policy is conceivable.

Comparison of the statistical data from different types of libraries or from different countries presupposes the existence of international standards [1] and data collection of national scope. In Germany, the collection of national library statistics [2] is organised by DBI, the German Libraries Institute, in separate parts for public, academic and special libraries. All parts are published together annually separately and, additionally, in an integrated edition, and the data on research libraries are also available on diskette (dBase format).

Hence, superficially at least, the "world of library statistics" seems to be in due and proper order, the proviso being that the data concerned are representative and consistent. As a matter of fact, that is not the case for the most divergent segment of the library world.

* Based on a discussion paper for the European Workshop for Suppliers and Users of Library Statistics in Luxembourg, 9 and 10 December 1997, organised by the European Commission DG XIII-E4

Response rate to statistics "alarming"

The picture is much the same in many countries: the percentage response to statistical surveys from *special libraries* is much smaller than that from other library types. Why is that so? Perhaps some of the following characteristics may serve as an explanation:

- small (often one-person) units have little time for administrative work,
- private sector units do not like forms that look "official",
- subject community involvement is obstructive to standardised statistics,
- special libraries run special services not covered by statistical formats,
- untrained staff know little or nothing about national library statistics,
- staff fluctuation is too frequent for statistics expertise to be acquired,
- feedback is weak due to unattractive presentation, delays in publication etc.,
- scattered, and sometimes "hidden", libraries cannot be addressed,
- effort-benefit ratio for collecting and providing data is not clear,
- quantity-dominated data doesn't reflect quality of services and performance.

In Germany, the response of (a total of about 3,000 known) special libraries to their national library statistics questionnaire, DBS, has never exceeded 35 % - compared to about 98 % in the case of public and academic universal libraries [3]. Moreover, the data collected has been persistently incomplete and inconsistent. This concurs with the situation in Britain, where the returns were less than 25 % (1994) and 20 % (1996) from approximately 4,000 institutions surveyed bi-annually [4].

What does that mean, and what are the consequences? Special libraries as a whole risk becoming a *quantité négligeable*, an invisible sector in the library world and, with more serious effects, becoming invisible to politicians and the media. They risk not being represented adequately in library associations, in library education, in library literature, on library conferences etc.

Expert group agreed on revision strategy

In view of this (in a way "alarming") situation, ASpB, the German Special Libraries Association, has initiated a revision of the relevant part of the German Library Statistics. An expert group for this task has been set up by DBI, the German Libraries Institute. The group comprises four special libraries' practitioners who represent diverse background in terms of subject and nature of their parent institution. Both private and public sector libraries are involved.

In its initial round of discussions, the expert group agreed on a revision strategy that includes the whole statistics' chain, i.e. input, processing of data, and output. Particular emphasis was laid on the importance of permanent statistics marketing, appropriate timing, and electronic access. Two of the main findings as regards the scope of statistics concerned the need to

- limit data collection in these (mostly small) units to a small set of core data,
- to back up sheer statistical figures, i.e. quantity, by selected quality information in order to motivate this special kind of library and promote identification with their "own" statistics.

First work results are available

Owing to the pressure from the annual publication schedule for national statistics, the first results have been produced within a few weeks and will - it is hoped - be found agreeably brief. These results are now available as:

- promotional press release (1 page),
- appeal for rescue of special libraries' statistics (1 page),
- explanatory circular letter for change in handling (1/2 page),
- draft new questionnaire (2 pages only!),
- design of a sticker/button "LIBRARY STATISTICS - yes, please!".

The presentation of the statistics revision initiative is scheduled for pertinent congresses and conferences, including

- DG XIII-E4, European Commission, Workshop for suppliers and users of library statistics, 9-10 December 1997, Luxembourg,
- DBV, German Libraries Association, Annual conference 1-2 October 1998, Hamburg,
- ASpB, German Special Libraries Association, Bi-annual conference 22-26 February 1999, Leipzig.

In order "to spread the word" and as an initial statistics marketing action, the papers mentioned have recently been distributed to

- all German special libraries known by address to DBI,
- various German LIS journals (Bibliotheksdienst etc.) for publication,
- a number of specialised library working groups for internal distribution,
- the Internet, being accessible at DBI's website at http://www.dbi-berlin.de/bib_wes/zdf/zdf_00.htm
- various internet discussion lists (INETBIB, CAMILE, OPL etc.).

What's new, what's better, what's unchanged?

The draft new questionnaire offers a number of alterations and advantages. The changes that can be recognised at first sight are:

- *shorter*: one A4-leaf only instead of two with extensive explanations,
- *reduced set of questions*: four paragraphs with explicit headings instead of an unstructured sequence of 70 detailed questions,
- *updated contents*: emphasis on services/products and (electronic) resources instead of detailed stock or inter-library loan data,
- *essential background information*: introduction of sector-specific and qualified data instead of simple quantitative data,
- *secure continuity*: 20 basic questions remain instead of interrupting DBS compatibility,
- *attractive presentation*: inviting lay-out/design instead of "official form" appearance.

Everybody is invited to comment

The last (and probably most essential) paragraph in the draft new questionnaire is devoted to suggestions for alteration and improvement, e.g. obsolete and/or missing questions, processing of data, presentation, reason(s) for non-participation in the national library statistics, and general comments. Everybody is invited to respond!

With this paper the expert group would like to inform the international library community and to generate a discussion on the issue of special library statistics from the practitioners/users' point of view. Moreover, the group would like to encourage experts active in the same field to share with us experience and/or information. Please contact the chairman of the *DBI Expert Group for the German Special Library Statistics' Revision* via the author's address at the end of this article.

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**ECONOMIC INSTITUTE LIBRARY AND CERGE LIBRARY,
A MERGER AND MODERNIZATION OF TWO LIBRARIES
IN PRAGUE***

By Stanley Kalkus

When describing the merger and transformation of two distinct economic libraries established under different circumstances in different political setting we must take into consideration not only these facts but also the conditions of the society preceding this action and the state of public affairs at the time of the actual merger and transformation. It did not concern only moving of books and equipment, planing of space allocation, preparing budget, but also it included the most difficult task of dealing with personnel and educating them to accept the necessary changes. In that process it is necessary to learn to recognize outside factors influencing the decision making and the implementation of new and different organizational rules. There was no library with open stacks and with primary concept of service to all users in the Czech Republic at the time of the reorganization and merger.

But let us start with description of the institutions and their libraries prior to the merger. The Economic Institute = EI is being described as a new institution of the Academy of Sciences of the Czech Republic established in 1992 in order to carry out high quality theoretical and empirical research. The Academy of Sciences of the Czech Republic is the official successor of the Czechoslovak Academy of Sciences, and the EI is a successor, if not official, of the Institute of National Economy (Narodohospodarsky Ustav), of the Prognostic Institute (Prognosticky Ustav) an institution working directly for the government, and of a special information center. The library collection is usually given as consisting of 200.000 volumes transferred from the Academy of Sciences, the Institute of National Economy, and and of about 10.000 volumes transferred from the Prognostic Institute. The special information center and its research and analytical studies section was part of the Academy library. There were thirty two employees working in these three units, half of them professional librarians and information workers. The new economic institute (EI) inherited the library and about 8 staff members.

Paper presented at IFLA 1997, Copenhagen

CERGE (The Center for Economic Research and Graduate Education) was established as a western type graduate school with a research center in March 1991, after some preparation period that begun in 1990 with the assistance of the Department of Economics at the University of Pittsburgh. It first shared spaces and facilities, especially the library, with the Central European University in Prague (Soros Foundation). The CERGE library holdings were completely integrated with the CEU library and that created some problems when the Library was separated from CEU library collections and transferred to the new quarters of CERGE/EI. Transferred were about 5,000 titles and a sizable periodical collection, and two library positions paid from CERGE funds. Some dispute accompanied the transfer of the library, particularly its cataloging data, but the actual physical separation of the collection was also a problem.

The initial result of the merger of the two libraries was sort of a chaos. Collections were held separately and located in about seven separate rooms. Most employees were paid by Academy of Sciences with bonuses provided from CERGE financial resources, the two CERGE librarians were paid from CERGE resources at somewhat higher rates.

Let us briefly examine the parent organizations and their structures. CERGE is a completely new organization established in 1991 as an independent unit of Charles University with technical and professional assistance of the Department of Economics at the University of Pittsburgh. Financial support is provided to CERGE by various foundations, corporations and government organizations as well as by the government of the Czech Republic through Charles University. The EI was established a year later in 1992 and since its inception working hand in hand with CERGE was financed by the Czech Academy of Sciences. The Academy of Sciences also provided a building to house the CERGE/EI and that was where the CERGE library was moved to be integrated with the library that belonged to the former National Economy Institute of the Academy of Sciences and the with the collection of the former Prognostic Institute. Things have changed considerably since 1992 when the two organizations were created and merged at the top level.

The merger at lower levels, but especially at the library level were a bit more complicated. Practically all EI support and administrative personnel were employees of the former three institutions of the Academy. CERGE employees were all new and from the beginning paid at higher levels than EI employees. Most outside funding was coming from sources such as the United States Agency for International Development (AID), Austrian Government, Westinghouse Corporation, Mellon Foundation, The Soros Foundation and some other sources. In the beginning funds were channeled almost exclusively through CERGE. From

the library point of view the wide variety of financial sources was a nightmare, accounts were kept separately for all the sources moneys were received from. There really was no such thing as an annual budget. First two years the Austrian support was so generous that there were more than sufficient funds for purchase of new books and for periodical subscriptions. Even funds for salaries were sufficient and it was possible to provide bonuses to Academy employees in order to equalize their pay with that of CERGE employees and to hire some student help. But there still was this unhealthy atmosphere, the division of staff, who works for whom, in spite of the fact that the top management wanted one organization and one library. The problem was that even the top management did not always know where the next grant is coming from. Requests for equipment (furniture, computer hardware and software) were prepared without a definite assurance that there will be funds to procure them. Although there was no budget as such for purchases, salaries were an exception so one could expect little or no problems with employees. Nothing could be further from the truth. The Institute's leadership for example wanted a US style open stacks library with extended and weekend hours of operation. The open stacks were accepted but the library hours that was an utopia with the employees used to entirely different, or perhaps we might say indifferent situation. This was not unique to the CERGE/EI library but it could be said it was the standard situation in practically all of the libraries in the then Czechoslovak Republic. It was a slow educational process but the positive results are beginning to show now.

The first librarian hired to run the CERGE/EI library was an American, a capable young man who however did not speak one word of Czech and was to completely dependent on translations by his staff. The library staff at that time was not nearly as fluent in English as it is now after five years of free English language lectures and a lot of practice. The fact that the librarian was almost totally dependent on interpretations and also explanations of Czech labor laws and management customs placed him in a very disadvantaged position. Needless to say this librarian did not stay very long. During this difficult initial period of merger there was another monumental task given and that was to plan and execute moving the library to new quarters within the building. To move all the library materials to for that purpose renovated space in order to have the library on one floor, the main floor, with a possibility of expansion, meant to empty all kinds of small storage spaces, decide what goes where and also weed out the entire collection. Weeding the collection was in itself a sizable job successfully accomplished only with the help of the members of the faculty. First the CERGE collection of about 5,000 titles of all new mostly English language books on economics were moved onto the new shelves and then the weeding of the Academy collections was

started. The numbers will tell us to what it amounted to. The number of volumes given for the Academy and Prognostic Institute at the time of merger was 200,000 and 10,000 respectively. At last years count the library collection consisting of the CERGE collection and items integrated into the new library was given at 30,000 volumes. There are more titles to be added from the old collection, but at least half of the Academy collection was weeded out. Some works were not on subject of interest to the new collection being built. Many were duplicates of marx)leninist philosophy and party propaganda. Some of the weeded materials were offered to other libraries in Czech Republic, some were saved for possible exchange purposes, and most were simply disposed off.

The present day situation is more optimistic. There is a library budget, limited in scope and still not completely stable, but it does represent some sort of continuity. Acquisition of new books presents some problem, mainly the selection of new publications. Standard services offered by publishers and wholesalers in most western countries are beginning to be available for some Czech and some West European publications, but not for US publications and these comprise about 70% of all new acquisitions in economics and reference works. The library staff today is almost completely new consisting of seven professionals, one clerk and seven student aids. The library director was hired in 1994 and was able to introduce most of the planned changes, such as extended weekday hours and weekend hours for the benefit of students and the faculty. Library is open to public during regular hours and the result is manifold increase of number of users. All library staff members must be able to communicate in Czech and English since the teaching language is English. Students at CERGE come from almost all Central and East European countries, and the teaching faculty at CERGE and researchers at EI are about equal divided between the Czech and Western professionals and experts. Many more financial sources were added to those that made the creation of this institution possible. Other new improvements include the selection of ILS ORACLE and it is presently being installed. The selection process was lengthy and difficult because of language requirements, availability of service and cost of purchasing and servicing of the system. Servicing was a problem and so was the language capability. Although ORACLE does not solve all these problems as yet, when all the parameters were taken into consideration it seemed to be the best choice for CERGE/EI needs. Also and that is of outmost importance, the staff seems to be comfortable with the system. New PCs were installed and CD)ROMs in the fields of economics and finances are subscribed to. In 1994 the library became a depository library for the World Bank. The special feature of the library collection is a unique section on the economic transformation of the countries of Central and Eastern Europe.

Some basic data on the Library:

Total area of the library: over 500 sq meters (increase of 85 sq meters during 1966)

Seating capacity: Reading room over 40, other 10

Total number of volumes: over 40.000

Periodical subscriptions: 350

Equipment: 8 PCs, 1 CD)ROM player, 2 photocopiers, 1 microfiche reader

About 5000 records in ISIS system are now transferred into ORACLE system

Library is used daily by over 70 users, more during school year, less during Summer months

Library has Internet address and www homepage

The proposed plans for the library call for about doubling the library space, increasing CD)ROM and on)line access to data bases, and also increasing interlibrary loan services.

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BOOK REVIEW

From Birth to Death or Paradise

Catherine E. Hare and Julie McLeod, *Developing a Records Management Programme*. (The Aslib Know How series. Editor Sylvia P Webb). London 1997. ISBN 0 85142 386 8. 57 Pages.

Everyone now seems to accept - so Catherine Hare and Julie McLeod in their introduction - that the age we live in is the information age. This means that information is a key resource. For being efficient it is necessary to manage the information of an organisation properly, that means managing it in the form of records that the organisation generates and receives.

The authors understanding of „records management“ is that it is a part of information management. In this understanding the term „information management“ contains all types of information: internally produced and externally acquired and irrespective of format. Records management as a part of information management deals with internally generated proprietary information.

The authors are right in stressing the importance of this aspect in the respect that information is a key resource.

In spite of this importance and the fact that information of/in records is expensive in producing, unique and an advancement in competitiveness in over 40% of business at the moment there is no information management policy. In offices 45 minutes are wasted for searching per day and per person. 19 of 20 records are never looked at again after 5 years. The solution to this problem is developing a records management programme, i.e. a plan of action for achieving control of the records of an organisation and also a clear understanding for a purpose of records.

The publication of the authors is meant to be a guide, providing the framework and practical guidance for records managers.

It is not possible here to refer to the variety of aspects of the publication: I just want to pick out the most important things from my personal point of view.

In the 1930s in the US the life-cycle-concept of records was invented, a cornerstone, on which modern records management is built. Life cycle means „from birth to death, or afterlife“, if the records survive for ever as archives. The background of this concept was a more archival point of view. The recent records

management stresses the necessity of „birth control and family planning“ - an increasingly important aspect in the electronic age for archivists, too.

The stages in this life-cycle-concept are: creation - the life plan is established, based on the series to which the records belong; active phase - supporting business operations and decision making; semi-active phase:- retaining records for legal or fiscal reasons; disposition - destruction or transferring records to historical archives for historical value.

Records have a message, a medium and a context. A letter, a contract, an x-ray, an e-mail or a geological sample etc. are records. Numerous records in an organisation make it impossible to manage records individually, they can be grouped to series because they are related to common business activities. „Record series“ is an other key-concept of records management, because a group of identical and related records can be filed as a unit and that permits their evaluation as units.

The life-cycle concept is a framework for every records management programme. The programme itself contains the elements of analysing the need of information, recording, storing, finding, protecting and destroying. In the creation phase the questions of necessity, design, lifetime and format have to be answered, in the active phase maintenance and use, filing system, physical storage equipment, retrieval systems and security are the main aspects, in the semi-active phase storage, retrieval systems and security. Characteristic for the disposition phase is the lapsing primary value, i.e. the use for the creator: Records can be destroyed unless they have acquired secondary value as evidence of past events and can be transferred to historical archives.

At the end of the book in the chapters about the records audit, the retention schedule and the implementation of the programme in the organisation the authors give very useful advice from a practical point of view.

Today 90% of the records are still paper records. The major challenges of electronic records for records managers are the facts that the medium and the message are separated, accessibility is only guaranteed by technology, often only by the proper hard- and software, the problems with authenticity of electronic records - they can easily be changed or amended etc. There is, however, no place for complacency, only endeavours to solve these problems.

This publication by Catherine Hare and Julie McLeod is a good and useful instrument for records managers. It provides the framework as well as all the practical aspects of records management. But even for non-records managers -

especially librarians and archivists - it is a useful and informative publication, giving an introduction to records and records management problems.

From a traditional archivist's point of view there might be too much about real life of records and too little about the afterlife, paradise. But in the electronic age it becomes more and more important that archivists are involved in the whole life cycle of records, otherwise their paradise will contain no data.

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