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The Reorganized LIBER in Leuven

ESKO HÄKLI
University Library, Helsinki

It was a great pleasure for LIBER to convene this year in Leuven, in the town sometimes called the "Oxford of Belgium". Leuven has a well-known reputation in the history of learning in Europe. It has also a dramatic library history. During a great number of years the Library of the Catholic University of Leuven has actively participated in the work of LIBER, and therefore LIBER was happy to accept the invitation to organize its Annual General Conference here.

The general theme of the Conference of 1995, Electronic Resources and Quality Management, focuses on two important topics which require intensive attention all over the world. Both themes could on their own provide enough topics for a whole conference. We have, however, decided to put these two important aspects into relationship with each other.

The programme wants to raise issues related to the rapid change of the context in which libraries have to find their way. The whole information business is heading towards expanding exploitation of electronic means. Libraries, national and university libraries in particular, have already a substantial experience of handling vast quantities of information in electronic form. They also belong to the pioneers in the use of electronic networks.

In addition to the rapid technological development in this field, libraries also have to cope with organizational changes. Typical for the emerging use of networks is the increasing integration of services. The new Library programme of the European Union e.g. focuses strongly on efforts to assist libraries in becoming active partners in this development. In the future there will hardly be different networks for different types of information. The information will be made available through more or less the same channels. Libraries must, therefore, play an active role in the ongoing integration process if they want to remain in the business. Today we can hardly anticipate how far the integration will go and how deeply it will change the present technical and organizational patterns. But that is exactly the reason, why European library managers have to be alert and discuss the issue together.

One of the recent headlines has been the "electronic super highway". The representatives of the G7 countries met in Brussels in February to discuss the future of the electronic information in the networked world. The European

Community hosted the meeting and is working actively in this field. These themes, therefore, have strong support from the governments. As a matter of fact, many European governments have already drafted strategic policy plans of their own and it would be of great importance to get libraries included in the national work programmes.

Quality management, the other part of the main theme of the Conference in Leuven, is in a similar way one of the key expressions of today. Nevertheless, I am not very confident that we are already aware of its consequences. They may also vary from country to country, depending on the policy of the national governments. As far as I can see, this issue will be with us still for a long time. Library is a difficult issue for us who are library directors. We may in theory be well aware of its requirements and methods, but it is quite another thing to put these insights into practice. One of the great advantages of LIBER has been the fact that it brings together managers, who meet, exchange experiences and learn from each other. In such a way we can support one another in the most efficient way.

The Conference held 1995 in Leuven was an important mile stone. It finalized the new start of LIBER. LIBER, founded by far-sighted European librarians in 1971, has, during the last few years, been very successful. Due to the interestng programmes, our Annual Cnferences have attracted more participants from year to year. Many of our Working Groups have achieved remarkable results. LIBER has also made an important contribution in the newly emerged East-West cooperation in Europe.

This obvious progress has been a challenge for us and an invitation to become even more successful. The General Assembly, therefore, in 1994 adopted new Statutes giving the organization of LIBER much more strength and enabling it, as I hope, to better cope with the needs of its member libraries in the rapidly changing Europe. According to the new Statutes, the main responsibility of the professional work will be carried out by the four professional divisions. Our ambition is to develop the Committees of the Professional Divisions into the most important bodies of LIBER. As a matter of fact, they should grow into key organizations in their fields in the whole of Europe, which will enable LiBER to take the lead in European cooperation between research libraries. They should help libraries in identifying new directions of the future and assist them in developing their policies. The Committee should, therefore, be able to engage the best expertise available in European libraries. They should also be able to make an important contribution by helping to raise the level of know-how in the member libraries and by strengthening the ties of cooperation between libraries in all parts of Europe.

The quarterly review *European Research Libraries Cooperation* published by LIBER has, thanks to its energetic editors, developed into an important European library journal. Our goal is to make it even more powerful by

channelling the expertise and the connections of our Divisions more closely to the editorial work.

It is my impression that the reorganization of LIBER has greatly interested many quarters in Europe. It has created expectations which we must be able to meet. Our new divisions will here play a key role. By doing so we will create a strong basis for all types of library cooperation in Europe during the years to come.

At the beginnning of the Conference week, the Divisions had their pre-conference in Leuven. The divisional Committees received feedback and support from their member libraries in formulating the work plans in such a way that their priorities cover the needs of the libraries and that the approaches suggested can open new avenues in accomplishing the agreed tasks. In the future, the work plans will play a central role not only for the every day work of the Divisions but also for the programme of our Annual Conferences. It has been decided that Divisions will assume the responsibility for the main part of the professional programme of the coming Conferences. We can enjoy the results of the Division's contributions for the first time in Malta.

With the help of the new arrangement LIBER wants to establish a stronger continuity in the programme planning connecting it directly to the work done within LIBER. But the aim is also to disseminate the results of the work of the divisions and their expert groups as broadly as possible. The Divisions, of course, can still organize pre-conferences and seminars which they find necessary in connection with the Annual Conference.

It is my great pleasure to thank all of them who have helped LIBER to reorganize its structure and to create the new Statutes. In particular I would like to point out the contribution of the Past President of LIBER, Mr. Michael Smethurst, who with a firm and wise hand guided us to our new organization. I would also like to thank the Chairmen of the Divisions who have already laid down a lot of work in organizing the Committees and drafting the work plans. They represent a remarkable piece of programme planning.

LIBER has traditionally had the ambition to act not only as an internal forum for its member libraries but also to represent their interests in relevant connections. This task is becoming more and more important. LIBER has traditionally had close ties to the Council of Europe and we still want to act as an efficient partner for its programmes. LIBER has a unique position in representing the most important European national and university libraries. But LIBER has also to find new ways to create a fruitful cooperation with the European Commission and its programmes. LIBER can bring together libraries, help them form consortia and channel their expertise for the benefit of the European programmes. This will be a great challenge for the new professional Divisions.

As a part of the programme of Leuven, a pre-seminar was organized to present the project EDIL, financed by the European Commission. The seminar attracted about 100 participants and illustrated in a splendid way the possibilities of LIBER to create a forum of European research libraries for such purposes. A similar seminar will be held also on Malta. In other words, LIBER can offer its services to many types of European cooperation and in an efficient way assist the governmental bodies in their work.

LIBER has recently been given a unique opportunity to strengthen its structure and resources. Through a generous three years' grant from the Nordic Council for Scientific Information and Research Libraries (NORDINFO) and with the efficient help of the Royal Library in Copenhagen LIBER has established a permanent Secretariat in Copenhagen. It will assist both the Honorary Secretary and the Treasurer. The Honorary Secretary can in the future, therefore, act more as a managing director. The new Secretariat will also assist the Divisions in their work and ensure that the information LIBER sends to its membership will be correct and timely. LIBER gratefully acknowledges this important support.

On behalf of LIBER I want to thank the local organizers of the Conference in Leuven, who under the leadership of Professor Jan Roegiers made a splendid job. I also want to thank all who showed their hospitality to the Conference and its participants, first of all the Catholic University of Leuven and its Rector, the city of Leuven and many others.

Next year in May LIBER will convene its Annual General Conference on Malta on the kind invitation of Dr. Paul Xuereb.

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 353-360.

The Virtual Catalogue: Practical Implications and Managerial Aspects

ROSS BOURNE
British Library National Bibliographic Service[1]

I have to say at the outset that coming into this conference somewhat late in its planning cycle, and not to mention half-way through its duration, that I was not at first altogether sure how for the present purposes a virtual catalogue was being defined. What I understand it to be is a bibliographic database built up from a variety of sources, but in which differences between those sources and the means of accessing individual records from particular files are largely invisible to the user. If that is not what I am supposed to be talking about, then perhaps I had better leave now. Otherwise, I shall be speaking in particular about standards and management and on how I see the concept of a virtual catalogue developing. I shall be calling on my experience in managing Britain's Copyright Libraries Shared Cataloguing Programme, and before that the union catalogue of LASER, one of the UK's regional library systems. It is my experience of the former, however, on which I would like to draw some of what I want to say this morning.

Actually, my definition of a virtual catalogue is not unlike that of a union catalogue. In its *Guidelines for the compilation of union catalogues of serials* Unesco proposes that a union catalogue is "a catalogue based on two or more collections, either in different institutions, or in different libraries in the same institution...".[2] The important similarity is that the union catalogue and the virtual catalogue both bring together information compiled in different circumstances into a single entity. The important difference is that whereas the user of the former will usually be aware that this information derives from a number of sources, the virtual catalogue user, because of the way in which he or she is consulting the catalogue, may be quite unaware that this is not the catalogue of a single collection - or if aware, may think it a matter of no great importance. While the situation in which the user has to wait for an item to be delivered from another library is not unfamiliar, the format of the virtual catalogue is such that

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

2 Unesco, 1982. (PGI-83/WS/1) p.3.

he or she may be deceived into thinking that the particular item is immediately available. Peter Lewis, formerly Director General of the British Library Bibliographic Services, expressed this rather well in another context, when he suggested that "if what is on the menus cannot be produced from the kitchens, [diners] do not get their nourishment by eating the menus instead".[3] In other words, virtual catalogues may raise false expectations.

I would like to suggest that for either a union catalogue or a virtual catalogue to be effective the following criteria must be met: a commitment by participants to common aims, the adoption of common standards (including, where necessary, local reconsideration of long established procedures) and perhaps most importantly the long term view, the vision, with the flexibility that must accompany it. It has to be said, however, that in many cases these things just happen, rather than come about by design or planning, but that need not prevent us from giving them a veneer of rationalisation.

What is it that co-operation is meant to achieve? There may well be a warm feeling of altruism, in the sense that what is being done is for the greater good; but one needs to ask oneself just what that greater good is. Is co-operation necessarily a goal in itself? I suspect that our motives are a little more fundamental than that. For example, we need to save money by using less staff time on original record creation, or we are obliged to demonstrate to whichever government body that allocates our funds that we are being cost-effective, or we find ourselves having to compensate for the deficiencies in our acquisitions budgets by becoming dependent on those libraries with better resources. But one can turn each of these somewhat negative attitudes into something more positive: is it justifiable for a number of libraries each to catalogue the same item several times over? shouldn't we in any case and at all times be fully accountable for the public funds that we spend? in these days of fax and digital transmission, is the concept of a single integral and physical collection of documents still a valid one?

So, we have to convince ourselves that the virtual catalogue is something towards which we should be aiming, a desirable development facilitated by the current technology and the means by which our collections can be opened up more fully, democratising their use in the sense that a person's physical location does not restrict his or her access to material. I used the word "democratising" a moment ago. This is one of those words whose meaning varies from person to person and from circumstance to circumstance, but I use it to suggest a degree of equality, and equality in the sense of the adoption of common standards is where I want to start.

3 Lewis, P.R. "The future of the national bibliography" In: *Proceedings of the National Bibliographies Seminar, Brighton, 18 August 1987.* London : IFLA Universal Bibliographic Control and International MARC Programme, 1988. pp.59-62.

When in Great Britain we embarked on the Copyright Libraries Shared Cataloguing Programme, the adoption of common standards was one of those high sounding phrases endorsed enthusiastically by all the participants. Yet it became apparent soon that although the principle of whole hearted adoption of the *Anglo-American Cataloguing Rules (AACR)* and the *UK MARC Manual*, both in their most recent editions, was supported, none of us, including ourselves at the British Library, could honestly admit that these codes were being followed to the letter. It is inevitable that in a large library with a long history behind it local practices and preferences will emerge, although deviations from standards may be dressed up as "interpretations". There are a number of aspects to this problem:

a) how much do variations actually matter? I would suggest that some will be apparent only to the trained cataloguer's eye and not at all to the catalogue user, such as the use of certain punctuation symbols in the display of a record. I would draw your attention to an article by Bryant, in which he reported the reaction of end-users to a variety of serials records; their reaction to many of the features of those records was one of puzzlement.[4] In other cases, however, variations may affect effective access, for example when a particular form of an author's name, which is appropriate to that library but does not conform with the AACR standard, is used ;

b) where variations or "interpretations" do exist, there may be excellent reasons. One of these I have hinted at a moment ago, that they may be totally appropriate to the particular library. Others may be present because they have always been present, and even if they are perpetuated in the local catalogue, it would be costly to make changes when those same records are input to a networked database. Nevertheless, one of the Shared Cataloguing Programme's contributors, the National Library of Scotland, is prepared to convert its records from the original USMARC to the agreed UKMARC format, presumably because it believes that the cost is outweighed by the overriding national benefit of being part of the Programme;

c) when variations are identified, it may be that the standard itself is less than ideal. How practical it is to propose an amendment to a standard which is formulated at national or international level within an acceptable timescale is another matter, but when there are good

4 Bryant, Philip. "What is that hyphen doing anyway? - cataloguing and classification of serials and the new technologies". *International Cataloguing and Bibliographic Control*, 18 (2), April-June 1989. pp.27-29.

reasons for varying from that standard that might indicate that there is a problem with it;

d) in the end, participants may simply agree to disagree, and compromises may have to be worked out. In the Shared Cataloguing Programme, the National Library of Wales, which operates on a bilingual basis in the same way as do the National Library of Canada and the Royal Library in this country, argues, quite rightly, that its Welsh name headings for Welsh official bodies are in its particular circumstances correct and insists that it cannot use their equally official English form for the purposes of the Programme. Since the cataloguing rules state that the language of the catalogue record is the language of the country - that is, the United Kingdom - we have an impasse, resolved by the British Library changing such headings back into English on receipt. Thus, Welsh *amour propre* and AACR integrity are both maintained.

These are issues arising out of our experience with the Shared Cataloguing Programme. How far they are applicable to the topic under discussion is another matter, but I can see some parallels. Standards are practical means by which communication can take place. They represent a professional consensus, but their formulation has to be a continuing process: as circumstances change, so standards must change as well. I would suggest that as we move into the era of the virtual catalogue so we must reconsider our present standards and where necessary modify them as appropriate. Now, how far we can continue to maintain local practices is another matter, indeed a political issue. But let me attempt to identify some of the areas that need such reconsideration.

1. Access is the most visible of these areas. Without agreement on how particular headings should be expressed, items in our virtual catalogue by the same author or in the same series will be scattered. Fortunately, name authority work has received a considerable amount of international attention in recent years, mostly but not exclusively commissioned by IFLA. In particular, can I draw your attention to the following initiatives:

   - the series of name authority listings published by the IFLA UBCIM Programme over the last 20 years, including especially *Anonymous classics* and *Names of persons*, both now in the course of much-needed revision;

   - also from the IFLA UBCIM Programme, a series of related monographs - some of which, alas, no longer in print, such as Eva

Verona's pioneering work on corporate headings[5] - but including also a more recent study by Beaudiquez and Bourdon of the Bibliothèque Nationale de France;[6]

- the ISSN International Centre in Paris, formerly the International Centre of the International Serials Data System (ISDS), has for over 20 years been disseminating key-titles for series;

- the British Library, the Library of Congress and other major libraries in the UK and North America are in the process of establishing a joint name authority file, to be known as the Anglo-American Authority File (AAAF), and this is due to be implemented next year;

- the European Commission is funding a feasibility study, under its CoBRA initiative,[7] known as AUTHOR, which is looking into the networking of national name authority files as a means of supporting and encouraging standardisation within Europe.

- perhaps the distinction between record and text is becoming blurred. A proposal has recently gone to the Commission, again as part of CoBRA, to investigate the integration of bibliographic data with electronic text. We await the Commission's decision on this proposal.

2. Display of bibliographic records has become a more significant issue. In many respects, the way in which we look at records is still very like the way we used to look at catalogue cards. I wonder whether more work needs to be done on the optimum means by which bibliographic information can be viewed. For example, what use should be made of colour and different type faces? Would the use of icons be helpful? In these days of networking, is there an application for HTML, HyperText Mark-up Language? I can envisage, for example, the inclusion of links from the names of authors, subjects, publishers, and so forth. The big question: should this be left to the

5 Verona, Eva. *Corporate headings : their use in library catalogues and national bibliographies : a comparative and critical study*. London : IFLA Committee on Cataloguing, 1975.

6 Beaudiquez, Marcelle, and Bordon, Françoise. *Management and use of name authority files : personal names, corporate bodies and uniform titles : evaluation and prospects*. München : Saur, 1991. (UBCIM Publications - new series ; vol. 5)

7 More information about CoBRA is available from its Secretary, Robert Smith, at the British Library National Bibliographic Service, Boston Spa, Wetherby, West Yorkshire LS23 7BQ UK (tel.: + 44 1937 546580, fax: + 44 1937 546586, e-mail: robert.smith@bl.uk).

cataloguers? Since the Internet can be accessed at home, perhaps we should be asking these questions of end-users!

3. Searching techniques vary from database to database. Although there are strong family resemblances between different systems, the requirements of the virtual catalogue are such that users should be able to move effortlessly from library file to different library file without being aware that they are doing so. As more bibliographic searching is liable to take place in one's study rather than at one's desk or in a library, so we must start thinking seriously about the implications of not having a trained librarian to assist the end-user. Indeed, the Co-ordinating Board of IFLA's Division of Bibliographic Control has been considering whether it should set up a project to investigate common searching procedures; the matter will be discussed further during this year's conference in Istanbul, and if it can define satisfactory terms of reference some work could start to take place in this area relatively soon.

I want now to say something about the governance of the virtual catalogue. As I believe I have suggested, the requirements of the union catalogue and collaborative cataloguing are such that to a large extent it is possible, when it is desirable, to perpetuate local variations. I think this should also be true of the wider virtual catalogue, but the obligations imposed by the degree of co-operation that is required - the total acceptance of certain standards for one, the need to take account of wider national and international considerations for another - may put local variations under some strain, causing their cost to be questioned. But how should the process be managed? This must vary from situation to situation, but I would suggest that where there is already an organisation - such as LIBER itself, for example, or IFLA or a national body like the Higher Education Funding Councils in the UK - such an organisation carries a respect that may take longer for a new ad hoc body to acquire. On the other hand, the actual act of co-operation is something with which libraries and librarians are already familiar. We have been working with one another long enough on such matters as interlibrary loan, preservation and collaborative cataloguing itself to know how to give and take. What is new is that we may be expecting one another to make greater sacrifices in order to achieve a higher degree of standardisation. Understanding of each other's problems will be necessary; we will have to work harder to establish consensus on standards and we will need to monitor closely our performance through the adoption of different quality measures.

What may be unfamiliar to some of you is what I believe to be the importance of being alert to developments outside our particular sector. I am a great observer of what is happening in the banks and supermarkets that I visit, on the television screens that I watch and in travel agencies when I book a holiday, because there may be something to be learnt in these places that we can adopt for our own purposes. In recent years, I have become involved in a body called Book Industry Communication or BIC.[8] BIC is a UK body which is jointly funded by the Booksellers, Publishers and Library Associations and by the British Library; its aim is: "to facilitate the provision and communication of information throughout the book industry, and to be responsible for the development and promotion of standards for the format and transmission of bibliographic information, commercial messages and other information designed to increase efficiency and effectiveness in trading and supply within the industry".

In the few years of its existence BIC has been active in establishing standards that both libraries and the book trade can share, especially in the area of EDI order messages. The librarians amongst us in BIC have also made significant steps in persuading our publishing and retailing friends that we can teach them a lot about collecting and presenting bibliographic information. But the point I want to make is that the book trade is already being very energetic in putting up book information on the Internet. Some publishers and some utilities, like the Internet Bookshop and other similar operations, have developed what are essentially bibliographic services which Internet users can access and use to initiate orders. These Web pages may include not only conventional bibliographic information such as authors and titles but also publisher blurbs, contents pages and images of the cover. I believe we ought to be learning from this, indeed co-operating with publishers in order to sell our services to a wider public, the public that may or may not use our libraries but would be attracted by the comprehensiveness of a bibliographic file that transcends the distance between libraries. BIC, as I say, has been breaking down barriers; its European equivalent, EDItEUR, which is funded by national book trade associations, is starting to do the same. I wonder whether, with such examples of co-operation between libraries and the book trade, upon whom, after all, we depend vitally, it is not just a little short-sighted to ignore what they are doing and build up our virtual catalogues without learning from their marketing and display expertise. Indeed, although I know that there are differences between us - we agree to disagree on the moral principle of photocopying - I believe it would make sense to maximise our common interests.

8 More information about BIC is available from its Managing Agent, Brian Green, at BIC, 39-41 North Road, London N7 9DP, UK (tel.: + 44 171 607 0021, fax: + 44 171 607 0415, e-mail: brian@bic.org.uk).

I should like to conclude by emphasising three points I hope I have been able to put across to you this morning.

- We may need to reconsider some of the standards we already use and to put a greater stress on others which in the past have seemed less important.
- Local variations are going to be harder to justify when users have the facility to navigate seamlessly between our bibliographic files. We are already familiar with the methods of co-operation, but greater sacrifices may have to be made at local level.
- We should not be afraid of learning from other sectors and in particular there would be great gains in co-operating actively with the book trade in order to maximise the use of published information, which is after all our common aim.

Colleagues, I think the day of the virtual catalogue is very close and I hope I have been able to contribute towards the debate.

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The Virtual Catalogue, the Virtual Library, and the Virtual Librarian

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Danmarks Tekniske Videcenter & Bibliotek, Lyngby[1]

Fast bind, fast find
a proverb never stale in thrifty mind
Shakespeare, *The merchant of Venice*,
II.5:53 (1597)

1. Background

In his reign 1364 -1380 Charles V (son of Jean le Bon) collected 800 manuscript volumes, a major library in its times (actually the precursor to the Grande Bibliothèque). The whole collection could be easily managed by a single keeper, knowing exactly the location, state and use of each volume. The days were long gone when a collection of 200.000 volumes was handed over from Pergamon to Cleopatra as a gift, presumably with some proto-catalogue as a finding aid. (Pausanias, who tells this story, was not sufficiently interested in collection management to mention it!)

In mediaeval libraries, collections that were not strictly private (like the King's), would often be chained to a fixed location. Later, for practical reasons, chains were abandoned (at least for this purpose), more compact shelving was introduced, and the keeper's memory had to be enhanced by some written record. As we know, with the invention of open collections the theft rate has become a genuine nuisance, in spite of Hi-Tech alerting gadgets. In recent days, the Shakespearean dictum has acquired a new meaning - the documents are fast bound on remote electronic servers and can be fast found and accessed non-destructively and practically simultaneously by several users and from anywhere on the networks.

Where does this leave the catalogues and the cataloguers?

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

2. What do we mean by Virtual?

Let me make a brief digression to social anthropology. In the Grenadine islands, ritual whale-hunting is still conducted with a strange mix of traditional and modern technologies. Observers are posted on the hills of several islands. When they see a whale, they signal to the operative headquarters by reflecting sunlight from mirrors. The estimated position is then radio transmitted to the sailing/rowing boat which has to approach silently to within reach of the hand-powered harpoon. On the shore, the population follow the hunting, shouting "blows, man, blows" when they see a water cascade.

In our practice of modernizing information services for research, we meet a similar mix of procedures, partly since the technologies for data processing and networking move faster than can be assimilated, partly for mythical reasons. The arguments for collection-building are maintained by users and publishers, text-processed manuscripts (even if put on electronic bulletin boards on Internet) are still seen as intermediate in anticipation of printing, and cataloguing is still largely a task for human experts, albeit increasingly with components of resource sharing to reduce multiple labour. Characteristically, while the Encyclopaedia Britannica is now available on-line, many articles, including those on libraries, are obsolete - for example concerning networked electronic libraries including hypertext linking and multimedia "document" transfer.

This mix and the difficulty of keeping information services in pace with available technology is at the root of the title of this paper. The virtual catalogue by itself is a half-measure, holding on to elements of the past, like the whale-hunting on the Grenadine islands. The traditional library, with the catalogued local collections is being superseded by its virtual counterpart, and the profession is swiftly moving into new roles requiring new formation.

Let us first consider the much-used (and misused) concept of "virtual". According to one definition (the 1992 ed. of the Academic Press Dictionary of Science and Technology), "virtual" means being of a certain nature in effect or implications, though not literally of this nature. This may sound slightly abstract, so let us bring it closer to experience by recalling, from our school days, that the image we see in a mirror is called "virtual", since the mind perceives an image or object in the extension (behind the mirror) of the reflected light coming from the real object. For many practical purposes (FOMPP), we can say that there is an image. Hence the idea of calling something "virtual" that FOMPP has the appearance of physical presence of the real thing. The question is what is "practical" and what is "appearance". The virtual image behind the looking-glass is parity inverted, i.e. left and right are interchanged. Try to read the virtual image of a text put in front of a mirror and you will see (if you do not have the abilities of a Leonardo) that it is not practical. Actually, in the transposed concept, as used in "virtual catalogue, library, etc." reference is made to a substitute, using modern technology, of some essential features of "the real thing"

as we used to have it. While the library exists here, the virtual library has its existence neither here nor there, and the user/librarian can be somewhere else. Yet, FOMPP, the virtual library gives (as if it were here) access from your work station to catalogues with records linked to the corresponding full (even multimedia) item, with further links for immediate reference.

3. The complementarity principle of librarianship

The theme originally proposed to me, "the virtual catalogue and the bibliographic universe", therefore leads us to consider the transition from a local access catalogue as finding aid in a local collection of material to a tool for orientation and retrieval within a "universal collection" containing all material relevant for a query, irrespective of its location. The "bibliographic universe" could be defined simply as the set of all databases/catalogues of any importance, but this would be to ignore the basic function of a catalogue, namely to provide a short route to getting one's hands on the document itself. Actually, the correspondence between the catalogue record and the object catalogued could be elevated to "the complementarity principle of library science". In the age of networked "electronic" resources, this is the basic organizational principle for the virtual library, the location of items becoming irrelevant as long as there are addresses and links.

Knowing what is going on in this area at present, it is an amusing reminder of our inability to forecast basic changes in our conditions when we read in the 1974 edition of Encyclopaedia Britannica " ....the cost of information storage in a computer probably will remain many times the cost of storage in book form on library shelves". This was written in 1971, when integrated local library systems were first conceived. It refers to local magnetic storage of text, and has manifestly been proven wrong not only as to storage but also as to remote resource sharing. To-day, no library user can avoid confrontation with the Internet and a number of organizational, navigating and retrieval tools, like Gopher, WAIS and WWW with mushrooming ingenious spiders, worms and other animal devices for orientation.

The problem of making one's library catalogue accessible world-wide is just a matter of organizing the files in appropriate ways, while standard networking software and browsers will do the rest. This is a purely technical matter, no longer a theme for a conference. Even simultaneous searching in several catalogues is nowadays a normal facility. But all this only concerns information about information. This is where the importance of the complementarity principle comes to prominence.

A more interesting concern is therefore the management of the complementarity between bibliographic records and the document itself, where the complementarity manifests itself as a pointer or link between "objects"

anywhere on the network, the access route being irrelevant to the user - he just has to "click". If the document itself is marked up with hypertext links on some level, one can then move within the document, and follow further links to other sources referred to in the text. This is, in a nutshell, the idea of a virtual library, where the catalogue record is no longer a separate entity but just a window (to use a telling metaphor) to the item catalogued. Actually, as will be seen from my slides of an advanced example, these links fully integrate the catalogue(s) with the text server(s) into a single conglomerate resource. The "access graphs" (actually sequences of pointers) linking documents pass through corresponding catalogue records on their way to a target. In the virtual library, the virtual catalogue is just an inseparable constituent of the whole. with partly automated consultation in the process of fillowing links from one location to another. What was earlier a homeomorphic mapping between object and bibliographic record becomes, in a sense, just two aspects of the same thing - therefore the choice of the term "complementarity principle".

4. An example of a fully fledged electronic library: the case of High Energy Physics

I will now show as an example a system that has gone far towards creating a genuine virtual library, without any "archaic" elements reminding of the Grenadine Island anecdote. This system is created by a clever use of automated creation of bibliographic records, linking and updating. I will use the High Energy Physics electronic pre-publication system, in the form available from the Stanford Linear Accelerator Center.

You will all have seen applications of the WWW, a general tool that combines hypertext mark-up with file transfer over the Internet. It originates from efforts in the early 90s to facilitate data transfer between physics teams from 100s of institutes participating in experiments at a half score of accelerator centers. But its conception was generally applicable, by allowing simple access to sources on the network in a genuinely distributed way. For example, catalogues and related documents can have different location, pointers can be followed within and between documents, and elements of sound, image, and text (so-called multi-media) can be made combined *ad libitum*.

In HEP, there exist since decades comprehensive bibliographic databases, originally conceived as finding tools for preprints, i.e. the manuscripts sent to journals but not yet published. This preprint culture became the basic element of fast communication, in bypassing the lengthy printing procedure, and, although not formally peer reviewed at this stage, subject to enough internal quality control and intellectual discipline to offset the standard objections to releasing un-refereed texts. The by far largest database effort was spent at SLAC (The Stanford Linear Accelerator Center), using the SPIRES data base management

software. This database was made accessible by logon to SLAC, but also by an Email messaging system, called QSPIRES (i.e. without logon to the computer). One main point of excellence of this database is that it contains not only extended bibliographic data for the preprint (title, all authors - even when many hundred, report number, date of release, added keywords from bound vocabulary, and later updated with reference to the locus of publication). The records also contain citations/references to the literature in a coded form (based on CODEN abbreviations with volume and first page number added).

This was the situation a few years ago, when file transfer over the Internet provided an electronic substitute for the circulation of paper-based material (hitherto distributed in typically 1000 copies, i.e. more than the circulation of many specialized journals). Text files were posted by the authors themselves on Electronic Bulletin Boards, providing access to the original texts of preprints, including graphics and could be accessed and downloaded separately or by "subscription". These bulletin boards (in this case mainly set up at Los Alamos National Laboratory) have developed, by self-interest of the community, certain "weak" standards and conventions for file production and presentation, and the board management has imposed a kind of template for bibliographic elements and abstracts. This implies that the database records, now with abstracts, and even the references can (at least in principle) be largely extracted automatically from the text file. But still more important is the implication that the database can be updated automatically with pointers not only to the full-text (both the original bulletin board version and subsequent conversions to de facto standards like PostScript or PDF(Acrobat) implemented in several locations. The references can namely also be used to create links from a document to all documents referred to, thereby crating a cross-chaining of the whole database. Further, when preprints are published, references to the published version will be automatically linked to the preprint version on the server, providing direct access (in this case, however, not to the final, published version. It is obviously within this line of development that, when relevant journals become available on-line (compare for example the recent announcement from Elsevier about 1100 titles) updating of the links to point to the official journal text file can be made automatically.

This will close the circle, the result being a complete virtual library where authors contribute the initial file, data management is quasi-automatic, access is free and immediate with full linking between document references, and the final publication is hooked on with adequate refereeing, authenticity control and permanence guarantees. This last phase is already often taken over by other actors than the traditional publishers, a trend that might entail a restructuring of the world of publishing, both conceptually and organizationally.

We noted the electronic journals are incorporated in this cycle as end products. In addition, and of more practical importance, is the facility to generate

ad libitum a personalized electronic journal. This can simply be done by an SDI profile running on the bibliographic database and giving as output an HTML document with selected new records and pointers to the full text. This constitutes the equivalent of a journal where each article matches the user's interest profile. The output can be assembled, with retrievable annotations to create a personal virtual library, where the SDI records form the catalogue and the pointers to text servers define and provide access to the material.

So whither goes the role of the scientific journal??

We will now have a quick look at a search in this electronic library. First we go to the WWW site of the SLAC Preprints database via some convenient Home Page. The following 10 transparencies show different aspects of a chained search, where most of the pointers (except the display of full-text documents) are followed up to show the power of this design.

Legend to transparencies:

Database: HEP (SPIRES-SLAC)
Search Command: FIND AUTHOR BLUM,W & DATE 1994
Result: 10 documents found:

1) MEASUREMENT OF THE B —> TAU- ANTI-TAU-NEUTRINO X INCLUSIVE / EXCLUSIVE BRANCHING RATIOS.
By ALEPH Collaboration (D. Buskulic, et al.), PU-PHY-94-582, Jul 1994. 7pp.
Submitted to Int.Conf. on High Energy Physics, Glasgow, Scotland, Jul 20-27, 1994.

List_of_Authors
References
Conference_Info
•
•

6) K0 PRODUCTION IN ONE PRONG TAU DECAYS.
By ALEPH Collaboration (D. Buskulic, et al.), CERN-PPE-94-059, Apr 1994. 12pp.
Published in Phys.Lett.B332:219-227,1994.

List_of_Authors
References
Keywords
Citation_Search
Postscript_Version from CERN

1) The search string "FIND AUTHOR BLUM, W & DATE 1994" gives 10 hits, of which record no. 6 is selected.

ALEPH Collaboration

Annecy, LAPP:
D. Buskulic, D. Casper, I. De Bonis, D. Decamp, P. Ghez, C. Goy, J.P. Lees, M.N. Minard, P. Odier, B. Pietrzyk
•
•
Marseille, CPPM:
A.M. Bencheikh, C. Benchouk, A. Bonissent, D. Calvet, J. Carr, C. Diaconu, F. Etienne, D. Nicod, P. Payre, L. Roos, D. Rousseau, P. Schwemling, M. Talby
Munich, Max Planck Inst.:
S. Adlung, R. Assmann, C. Bauer, W. Blum, D. Brown, P. Cattaneo, B. Dehning, H. Dietl, F. Dydak, M. Frank, A.W. Halley, K. Jakobs, H. Kroha, J. Lauber, G. Lutjens, G. Lutz, W. Manner, H.G. Moser, R. Richter, J. Schroder, A.S. Schwarz, R. Settles, H. Seywerd, U. Stierlin, U. Stiegler, R. St. Denis, G. Wolf
Orsay, LAL:
R. Alemany, J. Boucrot, O. Callot, A. Cordier, M. Davier, L. Duflot, J.F. Grivaz, P. Heusse, P. Janot, D.W. Kim, F. Le Diberder, J. Lefrancois, A.M. Lutz, G. Musolino, H.J. Park, M.H. Schune, J.J. Veillet, I. Videau
•
•

2)Clicking on "List_of_Authors" gives the ALEPH collaboration list (sorted by paticipating institution).

Some of the references, mostly to bulletin-boards and published journal articles, from the paper:

K0 production in one prong tau decays
(Only the first author is displayed, where known)

Nucl.Instrum.Meth. A294, 121 (Decamp: Aleph: A Detector For Electron - Positron ...)
Comput.Phys.Commun. 66, 276 (Jadach: The Monte Carlo Program Koralz, Version 3....)
Comput.Phys.Commun. 64, 275 (Jadach: Tauola: A Library Of Monte Carlo Programs ...)
Phys.Rev.Lett. 54, 624 (Mills: An Upper Bound On The Tau-Neutrino Mass Fro...)
Phys.Rev. D45, S1 (Hernandez: Review Of Particle Properties. Particle...)
Phys.Rev.Lett. 59, 751 (Aihara: Experimental Limit On The Decay Tau- ---> ...)
Phys.Rev. D4, 2821 (Tsai: Decay Correlations Of Heavy Leptons In E+ E-...)

3) Clicking on "References" (in record no. 6 of transparency 1) gives the reference list with most of the items in blue (i.e."clickable").

Database: HEP (SPIRES-SLAC)
Search Command: FIND SPICITE NUIMA,A294,121
Result: 1 document found:

ALEPH: A DETECTOR FOR ELECTRON - POSITRON ANNIHILATIONS AT LEP.
By ALEPH Collaboration (D. Decamp, et al.), CERN-EP-90-25, Feb 1990. 121pp.
Published in Nucl.Instrum.Meth.A294:121-178,1990, ERRATUM-ibid.A303:393,1991.

List_of_Authors
References
Keywords
Citation_Search

4) On clicking the reference NIM A294, p 121 (Nuclear Instruments and Methods) in the reference list (transparency 3), the preprint record for that article is displayed, with its list of "clickable" items. In this case there is no pointer to full text (the paper is from 1990, therefore too old).

Database: HEP (SPIRES-SLAC)
Search Command: FIND C NUIMA,A294,121
Result: Nucl. Instrum. Meth. A294:121
was cited by the following 123 documents in HEP:
•
•
11) K0 PRODUCTION IN ONE PRONG TAU DECAYS.
By ALEPH Collaboration (D. Buskulic, et al.), CERN-PPE-94-059, Apr 1994. 12pp.
Published in Phys.Lett.B332:219-227,1994.

List_of_Authors
References
Keywords
Citation_Search
Postscript_Version from CERN
•
•
123) A SEARCH FOR THE STANDARD MODEL NEUTRAL HIGGS BOSON IN THE H E+ E- AND H MU+ MU- CHANNELS IN Z0 DECAYS.
By John M. Hilgart (Wisconsin U., Madison), RX-1326 (WISCONSIN)-mc (microfiche), n.d. (recd Dec 1990) 154pp. Ph.D. Thesis.

References
Keywords

5) By clicking on "Citation Search" for the reference NIM A294, p 121 (transp. 4) we find 123 hits, including (as expected) the BLUM article (see transparency 2). Hit no. 123 is a thesis from 1990 with over 80 references, of which more than 60 % are "clickable".

List of keywords assigned to the paper: K0 production in one prong tau decays

electron positron, colliding beams
colliding beams, electron positron
electron positron, annihilation
annihilation, electron positron
Z0, electroproduction
electroproduction, Z0
tau, pair production
pair production, tau
tau, semileptonic decay
semileptonic decay, tau
K0, production
production, K0
K*(892), production
production, K*(892)
tau, branching ratio
magnetic detector, ALEPH
experimental results
CERN LEP Stor
tau- --> K0 pi- neutrino/tau
tau- --> K0 K- neutrino/tau
tau- --> K0 pi- pi0 neutrino/tau
tau- --> K0 K- pi0 neutrino/tau
tau- --> K*(892) neutrino/tau
approx. 91 GeV

6) Clicking on "Keywords" (in record no. 6 of transparency 1) we get the list allocated by DESY (Hamburg) from their bound vocabulary. Most of these are "clickable".

Database: HEP (SPIRES-SLAC)
Search Command: FIND C PHLTA,B332,219
Result: Phys. Lett. B332:219 was cited by the following 2 documents in HEP:

1) TAU DECAYS.
By A. Golutvin (Moscow, ITEP), DESY-94-168, Sep 1994. 20pp.

References

2) NEW RESULTS FROM CLEO-II ON HADRONIC DECAYS OF THE TAU LEPTON.
By The CLEO Collaboration (Jon Urheim, et al.), CALT-68-1945, Aug 1994. 9pp. Talk given at 1994 Meeting of the American Physical Society, Division of Particles and Fields (DPF 94), Albuquerque, NM, 2-6 Aug 1994.
e-Print Archive: hep-ex@xxx.lanl.gov - 9408003

List_of_Authors
References
Abstract
Link to Los Alamos server
Conference_Info

7) By clicking on "Citation Search" (in record no. 6 of transparency 1) we get 2 hits (papers referring to our test record and entered into SPIRES-HEP by 94-11-25 when this transparency was made). One is a DESY paper presumably not available from any bulletin board. The other is a conference paper, with a pointer to Los Alamos for the original LaTeX version. (Other versions were presumably added subsequently!)

1994 Meeting of the American Physical Society, Division of Particles and Fields (DPF 94)

Albuquerque, NM, 2-6 Aug 1994

Conference Description (from the CONF database)
List of Submitted Papers (from the HEP database)

8) By clicking on "Conference_Information" (for the conference paper of transp. 7) we get pointers to further conference information, and to all the pares contributed.

Database: CONF (SPIRES-SLAC)
Search Command: FIND R C94/08/02
Result: 1 conference found:

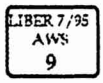
2-6 Aug 1994 , Albuquerque, NM:

1994 MEETING OF THE AMERICAN PHYSICAL SOCIETY, DIVISION OF PARTICLES AND FIELDS (DPF 94)

DPF'94 Coordinator: Dept. Phys. & Astron.: University of New Mexico: Albuquerque, NM 87131

E-mail contact: dpf94@unmb.unm.edu

[SLAC-SPIRES Conference Number: C94/08/02]



9) By clicking on "Conference_Description" (for the conference of transp. 8), we get details about the conference, useful for participants and contributors.

Database: HEP (SPIRES-SLAC)
Search Command: FIND R C94/08/02
Result: 118 documents found:

1) HIGH RATE, POSITION SENSITIVE RADIATION DETECTORS: RECENT DEVELOPMENTS AND APPLICATION IN PARTICLE PHYSICS, MEDICINE AND BIOLOGY.
By Fabio Sauli (CERN), CERN-PPE-94-150, Aug 1994. 19pp. Fermilab Library Only.
Contributed to 1994 Meeting of the American Physical Society, Division of Particles and Fields (DPF 94), Albuquerque, NM, 2-6 Aug 1994.

References
Conference_Info

•

118) SPONTANEOUS BREAKDOWN OF THE LORENTZ INVARIANCE AND THE NAMBU-GOLDSTONE THEOREM.
By Yutaka Hosotani (Minnesota U.), UMN-TH-1304-94, Jul 1994. 4pp. Presented at 1994 Meeting of the American Physical Society, Division of Particles and Fields (DPF 94), Albuquerque, NM, 2-6 Aug 1994.
e-Print Archive: hep-th@xxx.lanl.gov - 9407188

References
Abstract
Link to Los Alamos server
Conference_Info

10) By clicking on "List of Submitted Papers" (for the conference of transp. 8), we get 118 hits. Record no. 1 refers to a CERN paper with the note "Fermilab Library only". This refers to the hardcopy version, and a pointer to the CERN text server (omitted at this stage) would have provided access to a scanned (TIFF) version. Record no. 118 on the list points to the original LaTeX version on the Los Alamos Bulletin Board.

5. Conclusions

At the outset I proposed, rather than discussing the virtual catalogue and the bibliographical universe, the amalgamation of catalogue and collection as two aspects of the same resource with remote access. Considering the technology available to-day, it can be said that distributed and co-searchable catalogues can be set up with networked access from existion local computerized catalogues of local collections of tangible items. (Note that I avoid using the term "physical objects", since an electronically stored item is also part of the physical world.) This joint computerized catalogue is a tool for interlibrary cooperation, but it is going only part of the way to the virtual library now demanded by exacting users. For immediate access to new material (dominantly produced by authors themselves, often for sending drafts between team members across the world)

and for other material scanned as images or OCRed, the complementarity principle for the relation between bibliographic record and complete object (text-file or whatever) allows creation of a virtual library. In certain areas practically all research papers are made available in this way over the networks, new papers being added within a day of release from the author(s), and with links to the past literature being created automatically. Thereby the catalogue record becomes a logical part of the document itself, possibly even created automatically from information extracted from the paper. It is seen, that the distinction between unique documents (manuscripts etc) and printed ones gets blurred, as does the concept of publishing. This, again, raises new questions, managerial and procedural: Who guarantees the authenticity of the document pointed to, and the permanence of access; How are intellectual property rights safeguarded? How is control of use kept within the boundaries of personal integrity and privacy? And how is everything paid for?

D'Israeli, referring in 1841 to "the pen of a slumbering cataloguer" (see Oxford Engl. Dict. under "cataloguer") but himself an innovator, will be pleased - watching us from his heaven - to find that the new generation of librarians must meet very different qualifications from what was the case even 10 years ago. The pen will hardly be used, and the demand for new value-added (note the ugly but politically correct term!) services based on remote resources will not allow much slumber. The virtual librarians, while remaining distinctively human, will have learnt, like Alice, to walk through the looking glass as keepers of those virtual libraries which are neither here nor there, and yet everywhere.

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 373-382.

Regional Library Cooperation in Belgium

J. VAN BORM
University of Antwerp, UIA-library[1]

Regional library cooperation among research libraries in Belgium cannot be entirely separated from library cooperation on the national level. Indeed, national library cooperation existed long before regional library cooperation even started. In fact national and regional library cooperation are intertwined. In spite of this common origin some differences between the regions in Belgium can be observed.

Federal structure of Belgium

Before picturing the regional library scenes some information should be given on the federal, regional and community structure of the country which is richly diversed by history, language and culture. Out of a highly centralised state, created in 1830, gradually from the nineteen seventies onwards federal structures of a rather great complexity were created. Gradually more decision making and consequently a bigger share of the budget have been passed on to the three communities and the three regions especially since 1994.

Maps Belgium

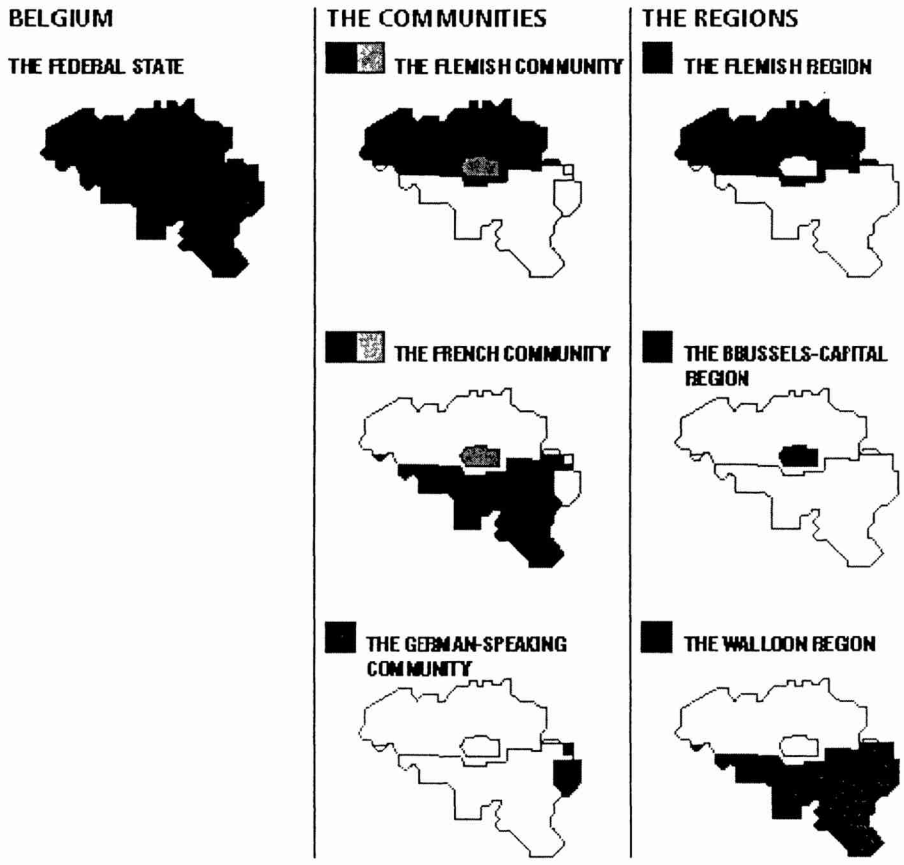
The federal state has no responsibility any more for culture and education. Still there is a Federal Ministry for Science Policy. Very few libraries depend these days upon the federal state. This is the case for the Royal Library in Brussels, libraries in the federal ministries and in federal research institutes and museums.

Belgium has three cultural communities. Communities are language-bound.

- Dutch: Flanders and Brussels
- French: Wallonia and Brussels
- German: border region with Germany (ca. 60.000 inhabitants)

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

Belgium is also divided into three regions according to the territory.



Maps Belgium

- Flemish region: North
- Brussel capital region: Centre
- Walloon region: South

Looking at the various maps, the reader will have noticed that regions and communities do not coincide and that two communities, the French-speaking Community and the Flemish-speaking Community do have their say in cultural matters in the Brussels capital region.

In Flanders there is only one Flemish Council and one government for the Flemish Community and the Flemish Region, whereas there are two different councils and governments in French Belgium: one for the French Community and one for the Walloon Region. It is widely accepted that the financial problems for culture and education in the French-speaking Community of Belgium, are mainly the result of this split of responsibilities in French-speaking Belgium.

After this chapter on the Belgian federal structure, it is time to move on to the topic of this paper: the cooperation on regional level between research libraries in Belgium. But the reader has to bear in mind that funding for regional library cooperation depends solely on the three autonomous Cultural Communities which have not necessarily the same means nor the same intentions.

Library cooperation in the German-speaking Community

The efforts of the German-speaking Community with a population of ca. 60.000 are limited to the public libraries in this part of the country and the "Medienzentrum" a central research library in the city of Eupen with three decentralised sections in the bigger cities having secondary schools. Audio-visual material in the German language comes from the *Institut für Bild und Wissenschaft* in Munich (Germany). Contacts are kept with the German libraries, especially in the "Land Nordrhein-Westfalen".

Library cooperation in the French Community

Commission permanente des bibliothÕcaires en chef du CIUF

The librarians of the universities in the French Community of Belgium started their regional activities in 1988 by creating *"La commission permanente des bibliothécaires en chef du Conseil interuniversitaire de la Communauté française"*, the Commission of Librarians of the Inter-university Council of the French Community. This commission is composed of nine university librarians, the librarian of the Royal Library and since 1991 two representatives of the public libraries in French-speaking Belgium.

The objectives of the Commission are the following:

- study of relevant items in librarianship and information and documentation in general

- dissemination of information regarding these libraries
- cooperative projects
- representation on federal and international level

After all, the university librarians in French-speaking Belgium stand for:

9 university library systems

9.000.000 volumes

41.000 subscriptions to periodicals

63.000 students

4.000 academic staff

This Commission has been active in all four of the action lines of the objectives. Collection inventory (over 600 libraries); collection evaluation and use of library statistics in order to derive from these longer term policy plans; use of Conspectus in university libraries; common defensive policy for periodicals especially in economic sciences and history of arts. In most cases the studies were extended to major non university libraries and lead to publications in the series: *"Repères en sciences bibliothéconomiques".*[2] [3] [4] Thus fulfilling item two of the objectives.

A cooperative project just about to start is the defensive collection building for periodicals in economic sciences and another one in the history of arts whereby as far as possible duplicate subscriptions will be avoided in order to get a maximum number of periodical titles in these disciplines available through university libraries of French-speaking Belgium. The other cooperative projects are integrated with the federal ones:

- CCB: the federal union catalogue of monographs (online and on CD-ROM)[5] [6] [7]

2 Guide des bibliothèques universitaires en Communauté française de Belgique. 2ième édition. Bruxelles, 1993. (Repères en sciences bibliothéconomiques).

3 A. Van Compernolle. Le Conspectus, un outil de gestion pour bibliothèques. Bruxelles, 1993. (Repères en sciences bibliothéconomiques).

4 C. Brouwer. Les bibliothèques scientifiques en Communauté française de Belgique. Bruxelles, 1993. (Repères en sciences bibliothéconomiques).

5 J. Corthouts, H. Van Sompel. CCB: de collectieve catalogus van België op CD-ROM. In: Bibliotheek- en archiefgids, 69 (1993), p.119-127.

- ANTILOPE: the federal union catalogue of periodicals (online and on the CCB CD-ROM)[8] [9]
- IMPALA: the federal electronic document ordering system.[10] [11]

The Commission represents the libraries' interests towards the CIUF, the Interuniversity Council for the French Community. Representation is done on the federal level through the National Council of the University Librarians. Representation does not stop at the border. The Commission has permanent contacts with librarians from other French-speaking countries. That's why our French-speaking colleagues participate actively in:

- ABCDEF: Association des responsables des bibliothèques et centres de documentation universitaire et de recherche d'expression française
- ADBU: Association des directeurs des bibliothèques universitaires

Moreover they maintain close contacts with their colleagues in the French-speaking Canadian Quebec and will organize next October in Valenciennes a get together with their French colleagues of the North of France.

Apart from a small amount of money made available by the parent organisation CIUF no permanent subsidy has been made available yet. Hence, no permanent organisational structure could be set up so far. What is also missing in French-speaking Belgium is a single, strong and well organised library association.

6 J. Corthouts, H. Van de Sompel. CCB: tweede editie van de collectieve catalogus van België op CD-ROM. In: D'une gestion automatisée des archives et bibliothèques vers une information automatisée. Antwerpen, VVBAD, 1993 (Bibliotheekkunde, 51), p.65-82.

7 See also http://www.libis.kuleuven.ac.be/libis/ecb/index.html for a general introduction to the project (Dutch, French and English).

8 J. Van Borm. ANTILOPE. Bruxelles, 1991 (texts in Dutch, French, English).

9 See information in English on the WWW server of the University of Antwerp (http:/www.ua.ac.be/MAN/ANTILOPEE/root.html).

10 See information in French and Dutch on the WWW-server of the University of Antwerp (http:/www.ua.ac.be/MAN/IMPALAF/root.html for the French version or IMPALAN/root.html for the Dutch version).

11 K. Clara, R. Philips. IMPALA, het documentbestelsysteem voor België. In: Bibliotheek- en archiefgids, 69 (1993), p.180-185.

Library cooperation in the Flemish Community

Flemish Library Association (VVBAD)

Moving to Flanders, the first thing to be mentioned here is a 75 years old strong Flemish Library Association, caring for the needs of librarians in all types of libraries, and also for the needs of documentalists and archivists. An annual budget of over 10 million BEF, 2½ permanent staff and just over 1.000 contributing members. Five regular publications: "Info", a monthly newsletter, "Bibliotheek- en archiefgids", the journal of the Association with one issue per trimester; two series: "Bibliotheekkunde" en "Archiefkunde" and finally the addressbook of the Flemish libraries, published every third year.[12] The Flemish Library Association is partly funded by the Flemish Ministry of Culture.

Contacts with the Netherlands

The Section of Research Libraries of the Flemish Library Association maintains close contacts with their counterpart in the Netherlands: the librarians in the research libraries of the Dutch Library Association (NVB). But this is not the only way of contact with the Dutch colleagues; there are SABIDO, a Dutch-Flemish body that looks after library and information education and training,[13] a working party on ministerial level, permanent mutual invitations for seminars and all kinds of manifestations, exchange of minutes of meetings and many long standing personal contacts.

From VLIR-Working Group to VOWB

Of the highest importance, however, for the research libraries are the library activities in the framework of the VLIR, the Flemish University Council. A Working Group for Research Libraries started its activities already in 1984. By that time the activities were supported by a part time secretary (20% of a full time job, made available free of charge by one of the research libraries).

From 1984 to 1987 the main activities were:

- defensive collection building, whereby every university library accepted the responsibility for maintaining the subscription to a

12 VVBAD, Vlaamse archief-, bibliotheek- en documentatiegids. 2 edition, 1993-1995, Antwerpen, 1993. (Introduction on archives and all types of libraries in Flanders in Dutch, English and French from p.23 to p.50.)

13 B. Wiebenga, W. Vanderpijpen. De samenwerking Nederland-Vlaanderen op het gebied van bibliotheekonderwijs. In: "Bibliotheek- en archiefgids", 68 (1992:1), p.17-20.

small number of periodicals considered as being highly valuable for the region and in danger of disappearance in the Flemish research libraries;

- a study of a central repository for less used books and periodicals: a study item that since that time has been on the agenda without any practical consequence yet;
- a study of cooperative collection development also without any direct application;
- a National Library for Flanders mainly aiming at improving legal deposit in the region.

The National Library for Flanders should not be seen as a means to reduce the role and influence of the Royal Library in Brussels, the National Library on the federal level.[14] [15] [16]

By the end of 1987 it became apparent that no further progress could be achieved without the availability of permanent staff. Until then studies had been carried out and proposals prepared by some of the members of the Working Group.

From 1989 onwards financial support from the Flemish Government became available provided the university libraries were prepared to co-finance the secretariat of two permanent staff and provided the Working Group created a greater opening for other types of libraries: the main public libraries, the libraries in private enterprise and the libraries in the non-university higher education, called hereafter the polytechnics. Hence a first in depth study on library provision in the polytechnics was published.[17] That study was followed by an unpublished study on document delivery.

The first contract with the Flemish Government had a duration of 3 years (1989 - 1991). By the end of that period it was felt that the permanent secretariat of two members of staff was too expensive a solution and could not be carried on, especially as the Flemish Government was not willing to pay for a permanent secretariat. It was then decided to stop the permanent secretariat and to go for secretarial help (half time staff member) linked to the president of the Working

14 L. Simons. Een nationale bibliotheek voor Vlaanderen. Antwerpen, 1984 (Bibliotheekkunde, 35).

15 K. De Bauw. Een wettelijk depot bij de Vlaamse Gemeenschap. In: "Open" 23 (1991), p.259-261.

16 L. Simons. Over het behoud van ons gedrukt erfgoed. In: "Boek en bibliotheek" 3:1 (1993), p.5-8.

17 H. Sels. De HOBU-bibliotheek in Vlaanderen en haar relatie tot de universiteitsbibliotheek. Antwerpen, 1991. (Bibliotheekkunde, 49).

Group and to project staff that could be found easily in the Flemish libraries. The Flemish Government was willing to subsidize some of the projects to a maximum of 1 million BEF per year, whereas the university libraries were willing to contribute as previously 1,5 million BEF per year. A total budget of 2,5 million BEF per year.

All this lead to the creation in 1992 of the VOWB: the *Vlaams Overlegorgaan voor Wetenschappelijk Bibliotheekwerk*, the Flemish Council for Research Library Matters, which will be called hereafter the Flemish Library Council. The mission statement of the Flemish Library Council has four items:

- Coordination of library activities in Flanders among all types of libraries; hence, the presence of librarians of the universities, the polytechnics, the main public libraries, other research libraries of public authorities and private enterprise;
- Library cooperation through project work;
- Advisory role towards the Flemish University Council (VLIR), the Flemish Government and other bodies.
- Contacts with regional, federal and international organisations.

Building on the work started in 1984 two in depth studies were commissioned:

- Depository of less used periodicals and monographs, which lead to the concept of the virtual deposit library whereby, instead of creating a new deposit library, the participating libraries would take up the responsibility for permanent storage of one copy of less used material for use by local and external readers; these items to be marked as such in the union catalogues: *"conservation copy"*.[18] [19]
- Conspectus: a pilot study on adaptation and use of the Conspectus methodology in a few selected disciplines as: Dutch literature, sociology, mathematics and medicine. Thereby relying partly on the achievements of the Scottish libraries.[20]

Since 1993 the librarian of the Royal Library is a full member of the VOWB, thus ending a long period of rather difficult relations between the research

18 W. Bosmans. Hebben we een gemeenschappelijk depot nodig? Leuven, 1993.

19 M. Van Ormelingen. Verslag van het literatuuronderzoek betreffende een gemeenschappelijk depot. Leuven, 1993.

20 J. Braeckman. Conspectus: van pilootwerk tot werkinstrument. In: "Bibliotheek- en archiefgids", 71 (1995), p.128-137.

libraries in North and South on the one hand side and the Royal Library on the other.

Apart from studies the Flemish Government wanted some action and was prepared to make available more money provided practical results could be achieved. No easy and quick agreement could be reached on weeding the collections and creating a virtual depository of less used materials. Consensus-building around the enhancement of the Flemish participation in the ANTILOPE union catalogue of periodicals was easier. Started in 1972 as an Antwerp union catalogue of current periodicals, it was decided on federal level in 1989 to open ANTILOPE for all periodical titles, including the ceased titles and the titles for which the subscription had not been renewed. But never there had been an attempt to complete the union catalogue with the older titles. With a grant of 5 million BEF from the Flemish Government and 10 million BEF of extra funding by the Flemish university libraries themselves a 15 million BEF project has been launched for the creation of a complete union catalogue of periodicals in the university libraries, the City Library of Antwerp and the polytechnics. This is not done through a system of shared cataloguing as this is the case with PICA in the Netherlands. On the contrary, a decentralised system has been set up whereby machine-readable records are created locally, then sent in batches via FTP to the ANTILOPE-database in the University of Antwerp where they are match-merged with the already existing ANTILOPE records. By the same operation a unique link is made between the local record number and the ANTILOPE record number so that automatic updating of ANTILOPE becomes possible. This project, whereby most participating libraries have to create local machine readable records of the older periodicals, is spread over two years and has to be finalised by the end of 1996. Offers by companies specialising in data entry were analyzed and rejected. Indeed, all libraries decided to do the data entry on their own library system. The data has to be supplied to the ANTILOPE-databank in SGML format. So far the project runs on schedule. Already now the ANTILOPE-database has been enriched by 20.000 new titles from the collections of the Catholic University of Leuven and the University of Ghent. The number of ANTILOPE locations doubled in less than two years time greatly as a result of the Flemish ANTILOPE-work.

Building upon the success of the ANTILOPE operation an opening was created for new and even greater funding of projects by the Flemish Government. Project negotiations have started early 1995 in order to create the EIV: *Elektronische Informatie Vlaanderen* (Electronic Information for Flanders). EIV is to become the electronic information server for the Belgian union catalogues (ANTILOPE and CCB), for bibliographic databases and also full text databases. These goals can be achieved autonomously or in cooperation with other Belgian and international partners. The expected funding by the Flemish Government is of 20 million BEF per year for the next five years. Libraries,

institutes and private industry using this service are expected to pay for these services so that the total budget could be soon of the order of 40 million BEF per year.

Conclusion

The achievements of the Flemish VOWB and its predecessors are seen in Belgium as highly successful. In less than ten years time the Flemish research libraries created a cooperative structure in which all types of libraries are included. From zero government funding they have moved to 4 million BEF in 1995 and possibly to over 20 million BEF in the years 1996-2000. From limited regional cooperation (mainly local) to full scale regional activities as the ANTILOPE-operation and hopefully the EIV-project. From traditional library topics to new information technology. However, compared to other countries as e.g. the Netherlands there is still room for substantial improvement. The transition in Flanders is thus by no means ended yet and this fragile relationship has been and might be in danger also in the future. But united we stand, divided we loose. Or put it in another way by using the Belgian device: *"l'Union fait la force"* (union brings strength). This brings me back to the cooperative library activities of the French-speaking Community of Belgium, where the take off of such activities was delayed by 5 years and where so far no government money has been made available in order to support the infrastructure that is required for the creation of a modern library and information infrastructure. It is hoped, however, that this will be achieved in the coming years so that the two larger communities of Belgium do not live at different speeds and can, by joining their respective forces, achieve greater effectiveness and obtain a better position in Europe.

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Academic Libraries and Computer Centres: Exploiting Mutual Strengths

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Introduction

A library is rarely free to choose and manage its automated system by itself. Usually, it must defer, to a greater or lesser extent, to the policy of the State or university computer centre or to another administrative body.

Librarians and computing staff must therefore work together, and while this cooperation may sometimes be trouble-free, it may also lead to tensions and even outright conflict.

It is worthwhile studying this relationship more closely in order to remove some common misunderstandings and in order to be clearer about the roles of the different partners.

In considering such a topic, there will inevitably be a certain degree of subjectivity involved, a tendency to caricature and even a risk to make provocative statements, depending on one's own experience in the field. However, the examples I shall give come from my experience, as a librarian having actively participated in the development of a system and of a network in connection with computing centres in an administrative context as well as in a university context.

"Academic libraries and computer centres": I wish to extend this topic somewhat by comparing not only libraries and computer centres but also by comparing librarians and computer specialists: how does each partner perceive library automation, what criteria influence their decisions, what misunderstandings occur, what conditions are necessary for good cooperation. It is not necessarily between libraries and computer centres that differences of viewpoint arise, but rather between librarians and computer specialists. Indeed, some libraries, and some library networks are run by a computer specialist rather

1 Paper presented at the LIBER Annual Conference, Leuven 1995. English translation by Geneviève Clavel-Merrin.

than by a librarian and this has inevitable consequences for library or network policy.

2. Some areas of misunderstanding

Rather than staying at a very general level of discussion, I wish to compare the attitudes of librarians and computer specialists towards some topics which are often a source of misunderstanding. We shall see that the same words are not always understood in the same way by librarians and computer specialists.

Let us look at some topics which come up frequently in discussions between librarians and computer specialists. I shall concentrate on four points: bibliographic data, networks, user-friendliness and output of printed products.

2.1 Bibliographic data

We shall begin with bibliographic data: this is a central topic which is perceived very differently by librarians and computer specialists.

The librarian is concerned primarily with the long term life expectancy of bibliographic data; library catalogues may last for decades or even centuries, they contain stable data which is infrequently updated and in this they are very different from data bases such as address files for mailing lists. Records stored in a computer, which have been typed in, corrected and improved over the years, will remain of value over a long period of time (and here I am of course talking within the context of an academic or research library with a strong role in conservation). This period of time may be considered as several decades or even several centuries. To my knowledge there are no factors which limit a priori the life of an automated catalogue of this nature.

The librarian is conscious of this long term investment and assigns great importance to standardised cataloguing rules, MARC codes, and character sets. In general, we can say that the librarian is concerned with the quality and the homogeneity of the data in the catalogue. S/he knows that cataloguing is to a great extent irreversible: given the extremely high costs involved we do not recatalogue an automated catalogue or catalogue (online) the same collection twice.

In contrast, the computer specialist is more concerned with data base organisation: s/he considers that it is essential to follow a DBMS model (which may be hierarchical, relational or another form). S/he considers that without such a model it will not be possible to guarantee optimum data base management, security, and the best use of data within a system. The computer specialist is rarely concerned with the librarian's requirements regarding cataloguing rules, the quality and detail of cataloguing and MARC codes.

2.2 Networks

The concept of networks is the second topic which may be a source of misunderstanding.

For the librarian, a network is first of all a structure within which a number of libraries cooperate. Within this network, a librarian carries out tasks such as shared cataloguing, inter library loan, coordinated acquisitions policies and other shared activities : the aims are cooperation and coordination. The automated system is only a tool for the network activities.

For the computer specialist, the network is first of all a physical network for data transmission (using dedicated lines, TCP/IP protocols etc.). The network is seen as a means of communication among different data bases and different systems.

2.3 User-friendliness

User-friendliness is my third topic. There are few words which have been so over-used in the last few years. When all other arguments fail, it is always possible to bring up the question of user-friendliness as the last word in a discussion.

But what does this word hide?

For the librarian, a user-friendly OPAC may be recognised by its ease of use, by the quality and homogeneity of the data it contains, by the quality of its indexes and by the range of searches it offers the user.

For the computer specialist, user-friendliness is often synonymous with interfaces: the term covers graphical user interfaces (windows, mouse, scroll-down menus, buttons), tools such as Z39.50, which allows the user to search in different data bases using the same commands and search structures, and also the interface between the OPAC and the PC enabling the user to transfer data in many forms.

2.4 Printed output

The final topic is that of output, such as printed lists, catalogues, or bibliographies.

The librarian wants to have a large number of parameters available in order to produce a wide variety of quality ouptut.

The computer centre wants to standardise procedures as much as possible and places greater emphasis on push button procedures for output than on the availabililty of a variety of 'designer' products.

We could probably identify other topics in which the same word covers in reality very different concepts. What strikes me in the examples I have given is

that misunderstandings often arise between librarians and computer specialists in areas where there should in fact be complementarity.

The librarian is, quite naturally, concerned primarily with content (data base content, cooperation within a network, the quality of printed output) whereas the computer specialist is more concerned with methods (data base management, communication protocols, interfaces, standardised procedures). These points of view are clearly complementary. It is useless and sterile to try to impose one point of view to the detriment of the other, and it leads to conflict. And yet the validity of both points of view is not always recognised.

3. The librarian and the computer specialist

The above analysis enables us to distinguish some fundamental differences between librarians and computer specialists, though it is of course impossible to generalise.

The *librarian* upholds continuity. As the person in charge of collections which have been built up progressively over several centuries, the librarian is conscious of a long term responsibility. We may compare the library to a ship which cannot keep changing its course. The librarian must maintain continuity; this sense of responsibility may be accompanied by a certain degree of pragmatism, a refusal to take chances or to modernise at any cost. Large university libraries cannot be experimental laboratories.

Continuity of action is absolutely essential in managing a library. However, the other side of the coin is that this emphasis on continuity is sometimes accompanied by a lack of long term vision, a lack of courage, and excessive perfectionism which leads to paralysis.

The *computer specialist* on the other hand is sometimes, often, but not always, uncompromising and rigid, in both a positive and a negative way.

It can be positive in the sense that the computer specialist is methodical, highly competent and highly committed to developing and running a system.

However, it can also be negative in that the computer specialists are sometimes too dogmatic: faced with the 'uninitiated' librarian, the computer specialists consider themselves to be the experts, and because they are the experts, they will try to impose on the librarian their methods and way of doing things. Unfortunately however, knowledge in this sphere is often a question of fashion...

I could give many examples concerning methods for developing systems, programming standards, standards for production, as well as standards for communication networks. One example will serve to illustrate excessive dogmatism: a computer centre in a state administration has imposed on the library the same standards for security as for its other applications: but can one really restrict the replacement of dumb terminals by a PC network in the name

of security? Can one really refuse to connect the centre to Internet for the same reasons? Seen in perspective, the situtation seems absurd, and yet...

However, it is probably when the question of choosing a new system arises that these different attitudes are shown more clearly.

4. Choosing a system, choosing a network

What are the criteria for choosing an automated system for a library? Computing system criteria? Functional criteria? Should priority be given to the system or to the network?

The *computer specialist* will naturally give precedence to computing criteria: a UNIX platform, a relational DBMS, a client/server architecture, etc. These criteria are important, but they must be placed in their proper context.

As an example, consider the following extract from an official document: "the future system must:

1. offer a client/server architecture, preferably one with a UNIX server;
2. communicate using TCP/IP protocols;
3. offer basic library functions in a user-friendly way."

This example demonstrates a serious confusion between means and goals. The goals to be reached with a new automated system concern functions and services (e.g. cataloguing in a network, a good OPAC etc.). The UNIX platform is only a means (maybe the best one, I am not sure) to reach these goals.The librarian on the other hand is more concerned with the 'networking' aspects than with the 'system' itself. Why should we give priority to the network? Because a good homogeneous network offers much better services to users than can be offered using uncoordinated systems, and because a network (in the library sense of the term) is built over several decades and goes far beyond the choice of a system: systems come and go, but networks will remain...

5. The library's independence vis-à-vis the computer centre

A library is rarely independent when it comes to choosing and managing its automated system. Good communication between librarians and computer specialists is thus indispensable, even if it is not always easy.

There are however some areas in which the library must retain its independence with regard to the state or university computer centre; here are three examples:

- one: the choice, installation and management of a PC network. This network should of course be compatible with the computer centre's standards, but it should also meet the specific needs of the library
- two: the installation of a CD-ROM server, the choice, acquisition and management of a CD-ROM collection, user information and training
- three: the choice of cataloguing standards, the coordination of and control over the central cataloguing file.In these areas I have listed, and in others, total dependence on the computer centre is particularly dangerous because of the complications it implies in the areas of the decision process, system installation, and problem solving, but also because of the risks of mismatch between library needs and computer centre requirements.

6. Conclusion

Should libraries and computer centres combine forces? Sometimes this can lead to a power struggle rather than to a fruitful discussion. Yet good cooperation is possible if each partner recognises its own limitations and accepts the specific strengths each has to offer. However, the most important point is that the librarian should not be considered merely as an ignorant lay person in front of the high priests of computing. Librarians can and must defend their own priorities and methods:

- the priority of data (quality, standardisation, compatibility, homogeneity)
- the priority of the network in order to offer the best possible service to users: the system is only a tool, not an end in itself
- the priority of long term needs, of continuity in the library's activity.

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Training Needs for Staff Competencies in a Quality Library Service: Relevance of the IMPEL Project

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Introduction

There has been a gradual recognition that providing a quality library service is dependent upon staff being well trained. It is also becoming apparent that a library will benefit from a well developed and resourced staff development programme. This is especially the case with the increasing use of information technology which necessitate having library staff who have current knowledge about appropriate software and hardware. In the United Kingdom the professional body for librarians,the Library Association, has produced a guide on staff development. (Whetherby:1994). When staff development is not in place, the guide indicates that a library will suffer through not achieving its objectives. There will be difficulties in managing change with a high turnover of underdeveloped staff. Quality management, the realisation of objectives and good morale and motivation will emerge when staff training programmes are in place.

There have been two recent reports in the UK which have had major significance for library staff training in academic libraries. The Follett report(1993) takes into account the expansion in numbers of students in UK higher education, the developments of information technology and the need for greater co-operation and sharing of resources. It has been very influential in the proposals to develop UK academic library services over the next few years. Central funding totalling £20 million over three years has been allocated to support the recommendations. Little attention is given to training but the value of having skilled staff underlines many of its recommendations:

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

> "...failure to provide staff with adequate training and to deploy them effectively represents one of the single most important constraints on change and development in library and information provision, and can seriously undermine its effectiveness, especially when this depends on the implementation of new practices,or on information technology."

A further report (Fielden:1994), was commissioned to look at staff management in UK academic libraries. It has had limited impact as no resources were released from central government to implement the recommendations. The Fielden report indicated that £1million per annum for three years was needed for staff development in UK academic libraries.. Individual libraries will have to fund any staff training programmes. There was a recommendation that library staff should devote 5% of time to staff development and training. Training in the follwoing areas was identified:

development and updating of IT skills

network navigation

customer service and interpersonal skills

support of management of change

skills in teamworking

quality improvement programmes

learner support

management skills

IMPEL Research Project

Background

The IMPEL Project has been run jointly by the Department of Information and Library Management and the Information Services Department at the University of Northumbria at Newcastle. The project aims to establish the key factors in a library context for the effective management of the networked campus environment. The focus in the first instance is on the impacts on qualified library and information service (LIS) staff of working in an increasingly electronic environment. Part of the remit has been to investigate the training needed by library staff so they can function effectively in the electronic environment. A major stimulus for the work was the changing nature of Higher Education, in particular the rising and broadening student population, the

growing emphasis on a student-centred, project-based approach in teaching and learning, rising cost of books and journals and the rapid development of computing and telecommunication technologies.

As information and computing technology converge ,resource-sharing by means of electronically held, often networked systems has been recognised to offer LIS an effective (and cost-effective) way of responding to the changes which are affecting them. The shift towards electronic information provision (access to information whenever and wherever it may be held), away from traditional print-based information provision (holdings of material within the library), however, has profound implications for LIS staff. They take on an increasingly instructional, guiding and advisory role; they spend larger amounts of time evaluating and weighing the benefits of different media; they rapidly need to acquire technical skills, often from a zero knowledge base,in order to perform effectively.

It has become clear that unless LIS staff are able to adapt to these new demands, they may not be able to fulfil the central role within the teaching and learning experience expected of them in Higher Education institutions. Libraries or Information Services at the end of the 20th century must not be isolated, inward-looking departments, but dynamic,creative and responsive departments. The IMPEL Project examines the strategic, institutional, management and training factors associated with these changes.

Methodology

The project is based on case studies in the LIS of six UK universities. The sample of six was selected by means of a purposeful questionnaire issued to 98 chief academic librarians, which achieved an 83 per cent response rate.

The questionnaire was designed to indicate to the research team those institutions which had reached a significant level of electronic library development. Based on a study of the literature, those institutions were expected to have:

A written IT strategy

Substantial collaboration between LIS and computing services

Special training provision to enable staff to work effectively in an electronic environment.

Innovative use of electronic networks for delivering information

Access to the Joint Academic Network (JANET) for all students

Out of 11 which fulfilled all the criteria, six were selected as providing a balance of age, type and size of institution. These were the Universities of Aston, Cardiff, Central Lancashire, Cranfield, Stirling and Ulster.

The researcher spent one week in each institution conducting semi-structured interviews with qualified LIS staff, library directors, computing service directors, institutional managers or committee chairmen, computing staff and library assistants. The interview transcripts (82 in all) have yielded a large amount of rich qualitative data. These were underpinned by questionnaires and scrutiny of documentation such as corporate plans, IT plans, management structure diagrams and training programmes. The triangulation of interviews, questionnaires and documentation is designed to increase the validity of the findings. Subsequently, participants from each site attended a one-day workshop which gave them the opportunity to validate the findings and exchange views and experience.

Figures 1-11 represent graphically the findings of one questionnaire which formed part of the study. This questionnaire (see Appendix 1) used the training areas identified in Fielden (1994) to ask respondents to assess the urgency with which they required training or development. The range was within 0(not required) up to 5 (urgent). Respondents were grouped into four categories, Senior Managers (of whom there were 15), Information/Subject librarians (31),Systems/Computer staff (8) and Other (library assistants and other services staff) (9). Figs 1- 11 present average urgency scores for each group for each area of potential training and development need. It is recognised that the size of the groups is unbalanced.

Discussion

The value of the training questionnaire data is limited in two ways. The sample size is too small to represent views on training needs in higher education libraries. Another factor is that the respondents are only based in libraries which are already using technology in a planned and co-ordinated way.

For these reasons the qualitative interviews have to be the main source of data for the IMPEL project. It is possible to make some broad observations from the questionnaire results. They do show that all library staff at all grades need some form of training. Figures 1-11 indicate that developing IT skills, being able to navigate the Internet and managing change are areas that all levels of staff rate as needing urgent training.

With the IMPEL data being gathered at university libraries where IT has been used effectively and training programmes are in existence the outcomes cannot be seen as the same for libraries which are only starting to use IT. Their staff training and development needs must be significantly different. The library

staff at the IMPEL sites have started to address the steep learning curve. Other university libraries may not have started.

The IMPEL research team is at the intial stage of examining the qualitative data in conjunction with the internal documentation. It would appear that staff training and development was recognised as a priority in all institutions visited. Where technological developments had been recent and rapid, the demand for training was acute. In all cases, it was an ongoing problem requiring rolling programmes tailored to a range of skill level. LIS staff took advantage of university-wide staff development programmes but often these did not address their specific needs. There was criticism of the emphasis on soft personal development offered in these programmes, when LIS staff desperately needed hard training in the area of IT. Lack of basic IT knowledge among LIS staff was seen as a constraint upon developments as well as a source of frustration.

Needs ranged from basic levels to in-depth knowledge of software packages and networked sources. Shortage of time to devote to training and development of any kind was a significant constraint. Staff were encouraged to attend outside courses and conferences as budgets allowed; most felt that this provision was good.

Timing of training and development posed a problem. Any time- lag between learning a new skill and putting it into practice may mean the skill is lost. There was also much discussion about who should receive training, whether all levels of LIS staff should have at least an awareness-level of electronic systems and sources, or whether it should be limited to professional staff.

Training activity in the different sites visited included:

Compulsory weekly training sessions (with library closed). Some sessions may be for self-paced learning.

Weekly training sessions 'strongly recommended'.

Policy of unrestricted access to training for LIS staff.

Programme of outside speakers on general but relevant background topics.

Ad-hoc sessions in response to day-to-day needs.

Self-teaching.

Joint training with computing staff.

Cascading.

The urgency and necessity of training and development in an increasingly electronic environment was forcing the trend away from an ad-hoc training environment towards a more formalised one with a designated coordinator. One coordinator was constructing a programme based on a training needs analysis;

another on individual training logs. A great deal of in-house training fell to subject/information librarians, a significant change of emphasis in their role. Trainers were occasionally brought in from outside to deliver training specifically tailored to need. Computing staff were also involved in delivering training. Looking across the range of sites studies, the most commonly expressed desires were:

A basic level of computer literacy

Long-term IT skills training

A structured programme for training linked in to the information strategy

Training together with computer services staff

Training geared to individual needs

More interaction and exchange of experience outside home institution

Training on a formalised basis

Time to practice new skills

There was strong commitment to training and developmentin all sites visited. At its most sophisticated this commitment amounted to a 'training culture' inculcated in the library.

Conclusion

Staff development and training is expensive. Time has to be freed up to allow effective studying to occur. The Fielden report (1994) suggests that 5% staff time should be in development activities. The natural follow-on would be that 5% of a library's budget should be committed to staff development. This may be difficult to justify in the light of increased demand for services, increases in periodical/book costs and limited funding. A very strong argument will need to be made to the institution to transfer resources away from journal and books to fund library staff development.

In organisational development terms, the future lies away from library staff relying on being taught and being passive recipients of information. Wetherby (1994) discusses the changes that need to happen. Staff have to be helped in developing the motivation and commitment to search out the answers to the learning needs they have identified for themselves. Active learning among librarians has to be encouraged. They will need to become skilled learners, continually looking for opportunities to upgrade skills and knowledge. In order for this to happen the library will need to provide the appropriate environment and resources.

The IMPEL project has received considerable attention among theacademic library sector and has been welcomed by the participating institutions. Since the study was conducted, many changes have been reported to the research team, indicating that further monitoring work would be valuable. It would also be of interest to extend the scope of the study to examine the impacts on student and academic staff users of increased electronic information provision. As the Electronic Libraries Programme gets underway in the UK, it would be relevant for the IMPEL team to investigate the impact and effectiveness of major training programmes. With changes in the teaching and learning process in mind, the role of LIS in resource-based learning systems is also worthy of study.

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Appendix 1 Questionnaire used in IMPEL Project to assess training needs

The recent Fielden Report identified the following staff training and development needs for LIS staff. Please would you indicate your **personal** needs at this time, according to a scale where) = **not required** and 5 = **urgent.** (n/a = not applicable)

1. Development & updating of IT skills and competencies	0	1	2	3	4	5	n/a
2. Network navigation	0	1	2	3	4	5	n/a
3. Training in customer service skills & interpersonal behaviour	0	1	2	3	4	5	n/a
4. Training to support the management of change	0	1	2	3	4	5.	n/a
5. Skills in team-working	0	1	2	3	4	5	n/a
6. Quality improvement programmes	0	1	2	3	4	5	n/a
7. **Learner support:**							
Teaching skills	0	1	2	3	4	5	n/a
Course design	0	1	2	3	4	5	n/a
Development of teaching materials	0	1	2	3	4	5	n/a
Development of Open Learning packages	0	1	2	3	4	5	n/a
8. **Management skills:**							
Recruitment and selection	0	1	2	3	4	5	n/a
Financial management	0	1	2	3	4	5	n/a
Staff management	0	1	2	3	4	5	n/a
Leadership	0	1	2	3	4	5	n/a

Thank you for your help

Training and Development Questionnaire (Figs 1-11)

X axis 0 = not required 5 = urgent
Y axis - Senior Managers, Information Staff, Systems/Computer staff, Other staff

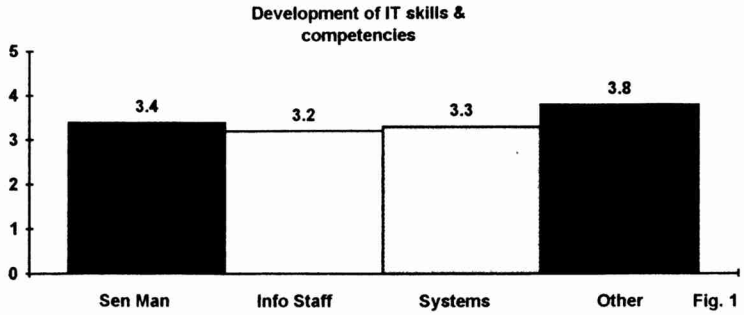


Fig. 1

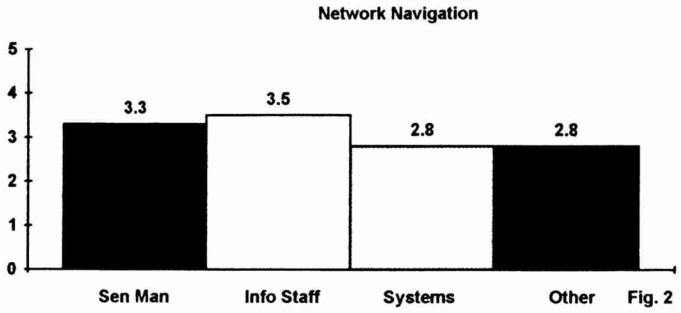


Fig. 2

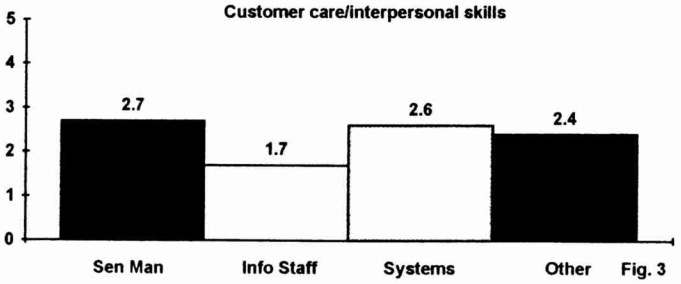


Fig. 3

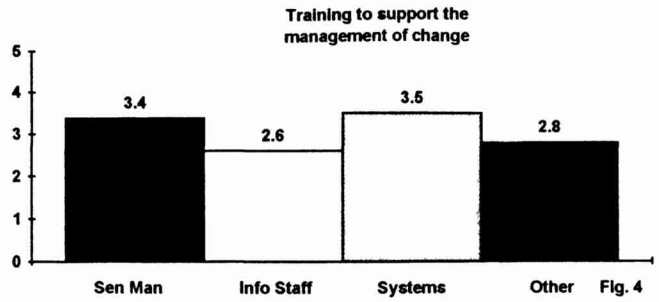


Fig. 4

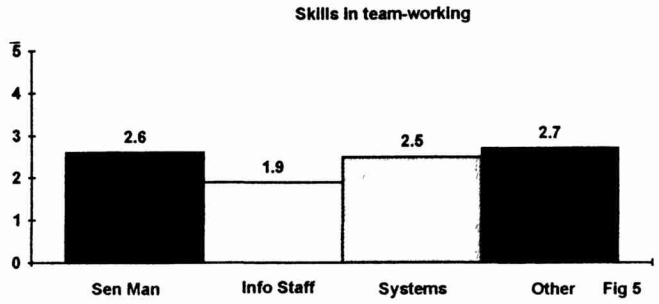


Fig 5

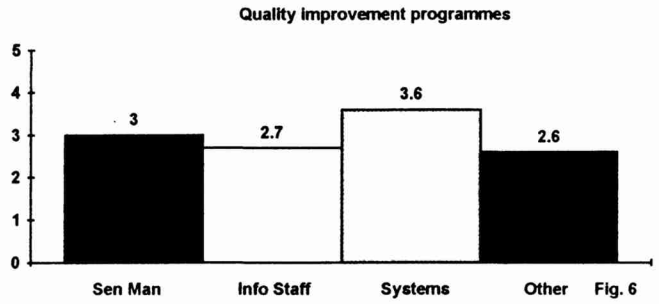


Fig. 6

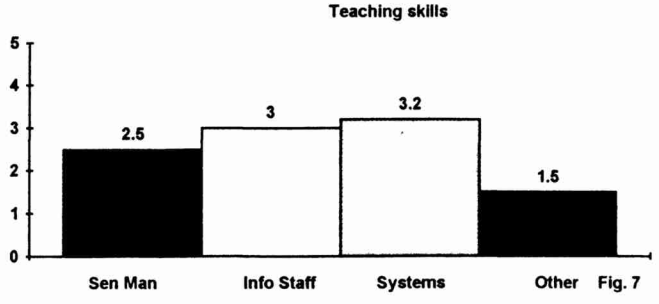


Fig. 7

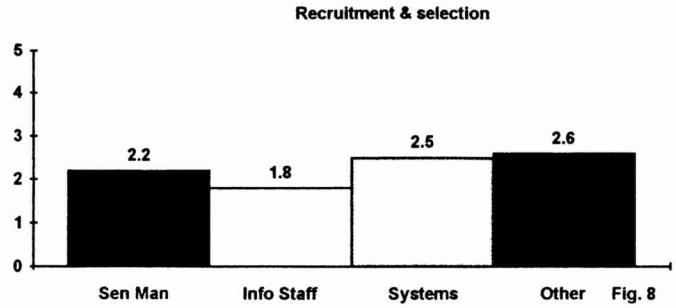


Fig. 8

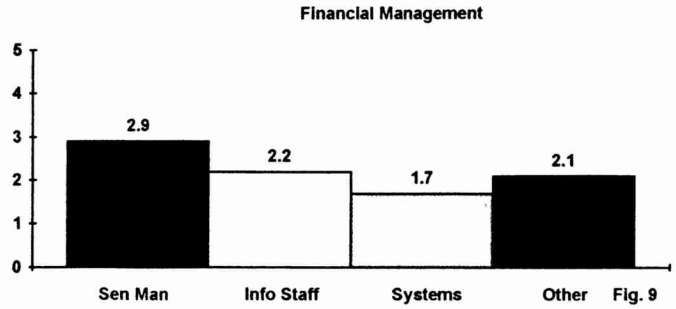


Fig. 9

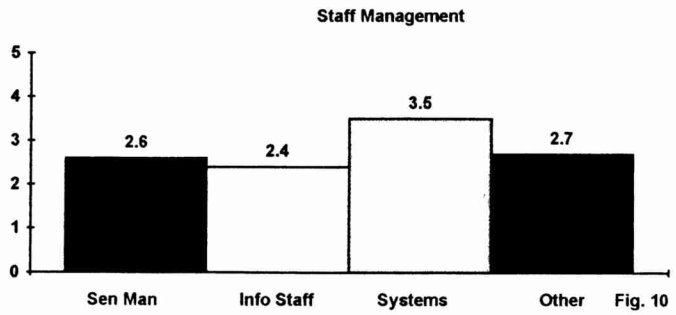


Fig. 10

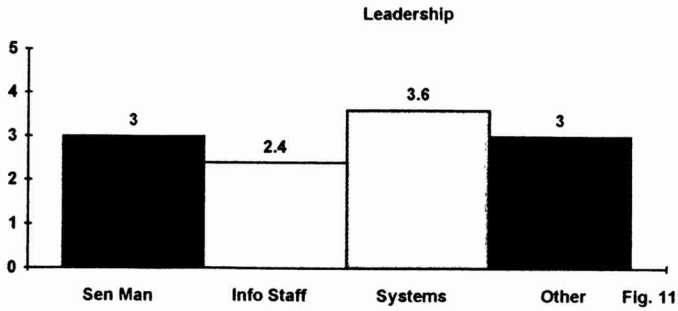
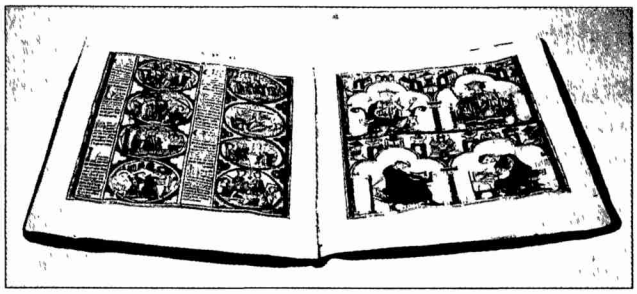


Fig. 11

Ein Prachtfaksimile einer Handschrift
aus der exklusiven Pierpont Morgan Library, New York
in der renommierten Reihe CODICES SELECTI:

DIE BIBEL LUDWIGS DES HEILIGEN



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European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 402-404.

Quality Management in Relation to Electronic Resources: some Observations

J. KINGMA
University Library Groningen[1]

Pursuing quality in the sense of an acceptable or higher level of service is, first of all, a question of selection and evaluation.

- Selection of adequate staff (A)
- Definition of the users (B)
- Evaluation of information resources for the end users (C)

A. Staff

1. An adequate staff is one that is willing to cooperate in the process of automation. This process requires schooling and reschooling, training, and instruction of staff members to acquaint them with the technique and the use of automated systems.

2. Many staff members when confronted with the electronic library are eager to learn the new techniques, their applications and practices. It offers them the opportunity for a welcome reorientation in their work. Technical abilities bestow new prestige, and prestige is one of the best motivators.

3. The Groningen University Library started automating library process in 1980. Now, 15 years later, a small group of staff members is running the library's automated systems. The systems management is divided into several different parts and each staff member within the group has his own specialistion.

4. This specialisation has its advantages, but it also makes you vulnerable. Too few people know too much about too many things. Spreading the knowledge and expertise concerning your library system may not be so good for the prestige of a few, but it improves the performance of the library.

5. Why is that so? In the first place expertise must be shared so that more than one or two people know what to do when the system is not working or working poorly. In the second place the users need information about what is

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

going on. These users are not only people from outside, but also colleagues working in the different sections of the library: the lending department, the information desks, the reading rooms, etc. ... The transfer of information about the ins and outs of the systems with which the whole library is working needs extra attention. Training in communication, for instance, is therefore indispensable.

6. The traditional functions of the library are changing. Most of them are more or less automated. The basic tasks have become routine which has stimulated many library workers to seek a different job, either temporarily of for good. In our library a policy giving employees the opportunity to work in another department for a short period has met with great success. A combination of part time work in more than one department has become very popular, also. We see that more mobility is improving work motivation, which improves quality.

7. In our library we see that the more ambitious staff members move toward the automation sections of the library, like the systems management department. Special projects like management information systems, expert systems for bibliographical help and for Internet, are scoring highly. These new activities, sophisticated as they are, are pulling high quality capacity away from what we call the more daily activities: buying books and periodicals and serving the public.

B. Users

1. That brings me to my second point: the users of our libraries. Our task is it to provide them with quality service.

We see three groups of users:

a) One group who does not seek special attention: part of the staff members of the university, keen students who are using the systems and the service the library gives. They go information shopping via their PC's and are critical sometimes, but see the library as one of the many ways for getting the information they need.

b) The second group are the users who, with some help and instruction, learn to master the OPAC and the automated procedures.

c) The third group is formed by the users who, in general, are seen as hopeless... Instruction and help spent on them cost much time and is not very effective. They prefer to let the necessary things be done by the library staff. They need a book or an article but see no way to get it themselves.

2. It is clear that the service towards these three user groups has to be differentiated. It is a scale from zero to hundred, or nearly hundred. It is

understandable that most libraries concentrate their activities on the second group, which also includes all kinds of levels and degrees of expectations, wishes, abilities, interests and... appreciation for the helpful staff.

C. Selection of adequate information sources for the end users

1. Automation in our library has had, and still has, the effect of diminishing the number of staff members. Automation has brought new quality to the library processes and the library services. We try to maintain the collection budget in order to keep the collection level as high as possible, but automation is expensive and the money we save in the personnel sector is spent on new machinery, new software, new networks etc. etc...

2. Quality is also: trying to find a good balance between the ways to inform - the electronics in the broadest sense - and the information itself. In the past we in Groningen have been rather conservative regarding the new information technology. We still have, I dare say, hard copy bibliographies and catalogues. We still have hard copy periodicals, even. And books. Someof our users are still using them.

On the other hand, we buy CD's, subscribe to online databases, have connections with national and international networks and so on, and so on. After subscribing, the use is evaluated, as far as possible.

3. For a faster expansion of the electronic sector we need extra funding, and, as a state university library, have sought and found external financing. Offering our services to industry has given us some of the means to finance the electronic library which we need to maintain quality.

4. Improvement of quality - this is my last statement - can also be reached by developing (when not already available) expert systems. The UL Groningen developed for instance an expert system for bibliographic instruction which is now online available for end users. Besides this, a project for an expert system meant for users of internet started this spring. A special room with some 50 extra PC's can be used by our students. They can be trained there in the use of all kinds of software: statistical programs, PC word processing, CD-Rom data bases, and the like.

With this short paper, I hope I've given you an idea of our ideas on quality management.

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 405-412.

Quality versus Over-Information in the Use of Electronic Resources

XAVIER AGENJO / FRANCISCA HERNANDEZ
National Library of Spain[1]

1. Outline

In the last ten years, the continual growth in the volume of bibliographic databases has begun to draw a dialectical contradiction on the horizon between the number of records these databases contain and the quality of the records to have a certain priority over their quality; proof of this are the great mass reconversion processes.[2]

In a parallel way, and based on a completely extended and accepted library policy of cooperative cataloguing to reduce costs and increase the benefits of the resources, the possibilities of augmenting databases through the development of suitable computer tools are increasing; these range from the simple and generalized clearing of records from CD-ROM to downloading. New developments and guidelines such as the Z39.50 and the SR (ISO 10162/3) make it even easier to donwload and increase the quantity of records in a database with relatively little effort.

However, this situation has led us to confront a series of problems, some of them new and others which have come to light; these were hidden behind manual processes and were not so obvious because in many cases human intervention solved them.[3] The problems are derived from the quality of the records which

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

2 There is an extensive bibliography on this subject. The most recent article which has come to our notice and which refers to a previous bibliography is Conversion retrospectiva: metodos y propuestas de viabilidad (Retrospective converson: methods and feasibility proposals) / Ana Santos Aramburu.// Tratado basico de Biblioteconomia (Basic Treatise on Library Science). - Madrid: Editorial Complutense, 1995. - ISBN 84-89365-14-8. - P. 105-115.

3 For example: a library process (as obsolete now as the manual alphabetizing of the cards) eliminated considerable problems for the user because human intervention in the ordering of the cards limited the effects of written errors; or in the establishing of access points without

make up the databases and from how this quality affects the information creation processes or a retrieval of the same.

The relative failure of the searches through OPAC and the creation of duplicate records (or even multipled ones) in the cooperative cataloguing processes, which classical bibliographers have called ghost editions, have forced a change of direction, or at least a change of stance with regard to the increase in bibliographic databases. This change in criteria is based on the improvement in bibliographic records, the integration of external records in the databases. This change in criteria is based on the improvement in bibliographic records in different phases of the information process, the creation of records, the integration of external records in the databases (reconversion or exchange) and on the correction of existig errors.

Although concern for offering quality services as a basic principle for the handling of compter systems is rapidly mounting, we consider that also the errors and incoherences accumulated in the databases throughout the years exert considerable pressure in the same way and are not negligible when a suitable reply mechanism is set up.

An attempt will now be made to illustrate this series of problems and a possible solution to them by analyzing the procss carried out in the automation of the National Library.[4]

Firstly the National Library started up its present database ARIADNA with abouth 100.000 records from its pevious automated system, to which 195.000 automated bibliographic records were added for the edition of the Spanish Bibliography by the Hispanic Bibliographic Institute between the years 1976 and 1987.[5]

Also incorporated in this database were records from the reconversion of special materials catalogues. Besides, bibliographic records of non-Spanish material; an experience from which we gained a rough idea of the problems concerning the integration of authority records on subject matter in a language other than Spanish, and which will be duly mentioned in another puplication. The cataloguing of titles published between 1991 and 1992 was also covered by

needing to write errors; or in the establishing of access points without needing to write the cards again, which in a computerized process is impossible without acting on the record.

4 See the paper presented at the IV Jornadas sobre tecnologias de la informacion para la modernizacion e las Administractions Publicas (Conference on computer technology for the mdernization of Civil Services): Tecnimap 95 entitled La Biblioteca Nacional como sistema global de acceso a la informacion y al documento: diseno de un programa (The National Library as an overall system for access to information and documents: design of a program) / Xavier Agenjo, Francisca Hernandez.

5 Conversion de los registros automatizados de Bibliografia Espanola y su integracion en la base de datos ARIADNA database) // Pilar Doninquez Sanchez. // 59th IFLA Council and Conference, Barcelona, Spain 22nd - 28th August 1993. - Booklet 4, 10-13.

contracting external companies who made 75.000 bibliographic records. At the same time as this process of increasing the database, the reconversion of the National Library's manual catalogue, the Indice General de Impresos (General Print Index), was made.[6] Nevertheless, with the completion of the conversion, forecast for 1996, the complex diversity of the existing cataloguing guidelines[7] in the preparation of a historical catalogue such as that of the National Library will be made clear; not to mention the authority files or the amount of movements of the copies reflected in the changes in catalogue numbers, etc. The latter may seem trivial, but it has a huge effect on the actual use of the Library.

However, as a result of the above in these massive information loads, and despite the different files, validation tables and authority controls[8] which act as filters to clear information previously integrated therein, a change of strategy was decided which made the forecast growth rate of the database vary. In fact the experience gained from the massive integrations meant that the integrations meant that the integration of the reconverted records suffered a deceleration process insofar as there was not a more extensive clearing of information function available.

The solution to the errors and duplications of records can be put forward from an individualized point of view, according to which each library establishes the necessary means to increase the quality of their records and the time limits to do so within the usual cataloguing process. However, the environment in which libraries move is that of networks and interconnection, which is why it is also

6 La reconversion en la Biblioteca Nacional: estado actual (Reconversion in the National Library: present position)/ Lola Castillo. // Boletin del Departamento de Proceso (Processing Department Bulletin). [Madrid]: National Library. - ISSN 0214-8498. - 2 (1990) 17-20.

7 A review of the different Spanish cataloguing guidelines can be seen in the Introduction to Reglas de Catalogacion Direccion General del Libro y Bibliotecas, 1988- . - V.I. Monografias y publicaciones seriadas (Monographs and serialized publications) pp. V-IX. Recently a new revised edition of Cataloguing Rules has appeard, Reglas de Catalogacion. - Edicion refundida y revisada. - [Madrid]: Direction General del Libro, Archivos y Bibliotecas, 1995. - ISBN 84-8181-065-7.

8 Control de autoridades: normalizar la nomalizacion (Authority controls: standardizing standarization) / - Maria Jaudenes Casaubon. // Tratado basico de Biblioteconomia (Basic treatise on library science). Madrid: Editiorial Complutense, 1995 - ISBN 84-89365-14 -18. - P. 117-130.

Also see, La automatizacion de la CDU y los sistemas de gestion de bases de datos: el analisis de la estructura de la informacion (Automation of the CDU and database handling systems) / Xavier Agenjo, Pilar Benedito, Dolores de Castillo and Maria Jaudenes. // New Worlds in Information and Documentation: Proceedings of the Forty-Sixth FID Conference and Congress held in Madrid, Spain 22nd-29th October, 1992 / edited by Jose Ramon Alvarez - Ossorio, Ben. G. Goedeegebuure. - Amsterdam: Elsevier, 1994. - ISBN 0-444-81891-X. - P. 283-294.

important to think of the amount of records which are being exchanged or which form part of collective catalogues to reduce the distribution process therein, and errors and inconsistencies which outside data bases could cause.

In view of the foregoing it was decided to undertake the development of a record clearing module which would allow the massive processing of records, both interacitvely and in batches.

2. Definition of the massive record processing system

The project consists of a recorded and on-line processing system of bibliographic, authority, and holding records which fit with the ISO 2709 and ISO 1001 standards, independently of the present environment of the National Library, in one or several machines with a Unix operative system.

3. Type of processing

The types of problems detected in the database can be grouped together as follows:

- Spelling mistakes
- Typographical errors
- Errors in any aspect of the use of the IBERMARC format: coding, indicators or labels. On occasions these malfunctions have occurred due to the actual development in the application of the format, as in the case of the IBERMARC format of holdings and locations.
- Inconsistencies in the access points, in the majority of cases caused by the logical existence throughout the years of changes in the form of editing.
- Duplicated records
- Errors in ISBD punctuation

As a result, the clearing module will deal with the solutions for the types of errors detected by means of:

1. Filters, verifications and validations of MARC records:
   - Verification of the set of characters
   - Verification of ISO 2709 and ISO 1001 specifications. Enables one to know the condition i.e. the physical structure of a batch of records and to obtain exact reports.

2. Statistical reports: number of physical and logical records, length of the record and the directory, etc.
3. Verification of the IBERMARC format[9]: check of obligatory fields or subfields not present, repeatable and non-repeatable fields or subfields, coherent groups of fields and incomplete subfields, etc.
4. Selection of subgroups of records by means of fixed criteria for processing: the established selection criteria are: existence of a field/subfield, search for chains of characters in a field or subfield, search for indicators, repeatability of fields or subfields, lengths of a field or subfield.
5. Processing of records: adding a field/subfield, adding contents to a field/subfield, changing indicators in a field, deleting a field or subfield, changing the indicators in a field, deleting a field or subfield, changing the label of a field/subfield from a fixed position of the contents of a field/subfield, and creating fields with the contents of other ones.

4. Functions

The user of the module will be able to create as many batches of records to be processed as he/she wishes from the selection criteria he/she establishes. These selction criteria can be stored as selection profiles and subsequently applied for the creation of new batches.

Each batch or group of records will be stored in the Data-Base of the Supplier for processing, both individually and interactively, and en masse and recorded.

It is possible to dynamically extract information from the records of each of the batches by means of different statistical reports, the aims of which are to provide quantative data on the physical characteristics of the file, such as the number of physical and logical records whch the file contains, lenghts of the record and the directory etc. These reports will enable the librarian to analyze the contents of the information and to establish subgroups on which the type and number of corrections to be made are defined.

In the same way as the creation profile of the batch can be memorized, the entire operations the cataloguer makes on a certain batch can be stored in a processing profile which will be called up as many times as necessary, without all the operations having to be defined with each process.

9 Formato IBERMARC de registros bibliograficos (IBERMARC format of bibliograficos (IBERMARC format of bibliographic records). - 5th edit. revised ad extended. - Madrid: National Library 1995. (In print).

As is mentioned above, the process can be carried out on authority, bibliographic and holding records, which means that at the same type one operates these records one must act on the implicit and explicit linkings existing between them. For example, in the case of the elimination of duplicate records on e finishes with the deletion of the duplicate bibliographic records and the holding records and the entering of linkings between the respresentative bibliographic record and the existing holding records.

5. Structure of the system

The machines will be connected to the local area network of the National Library, and access can be gained to it from any work-station connected to the above-mentioned network. A multiuser work environment will enable various users to work simulatneously and carry out tasks, both interactively and in batches. In this way the procedure of processing the records is sufficiently flexible to allow the same group of records to be corrected by various users at the same time, who can carry out processes of massive recorded changes.

The project includes two work possibilities:

1. Work-station emulating a terminal (alphabetic interface of the user). In this case, the process will be fully carried out in the supplier (CPU). The software products needed in the supplier will be, UNIX and TCP/IP, ADABAS, NARUAL and NETWORK. The products needed in the Client (PC) will be: MS-DOS and WINDOS/TCP/IP, Natural for Windows and Network for Windows.
2. Work-station in Client/Suplier structure. In this case the user will have a graphic interface; the process will be carried out in the Client and start in the Supplier. The products needed in the Supplier will be UNIX, TCP/IP, ADABAS, NATURAL and NETWORK. The products needed in the Client (PC) will be: MS-DOS and WINDOWS, TCP/IP, Natural for Windows and Network for Windows.

With the above it is claimed that this module for processing records reduces the work load required for clearing information and involves both a rise in productivity and an increase in the efficiency of the National Library's database, as well as a greater rate of respective retrievals for the final user. It was trusted that the integration of the automated records in existence at present: 640.000 records reconverted from the Indice General de Impresos (General Print Index), or from collective catalogues such as the 100.000 of the Novum Regstrum database, the 95.000 from the Collective Catalogue of Periodic Publications, those of Libraries without Frontiers, and those of other future projects could be

incorporated in the database with the same criteria of quality as those established for the one-lines.

It is obvious that it is going to be necessary to progress one step further in the clearing of bibliographic databases, because in order to achieve quality records, you need to have expert staff who usually work on the creation of new records and, above all, the maintenance of the authorities file. We must therefore try to complement the task of these librarians with the development of systems based on knowledge. The offspring of this idea is the proposal of a System based on knowledge for the consistency of bibliographic databases, known as KSYSERROR presented at the Telematic Application Programme of the DGXIII of the European Commission, and coordinated by the Spanish company IFIGENIA, and in which the National Library will participate once it has been approved,[10] and in the definition of which it has been actively involved. This project is aimed at ensuring quality services for the user and at reducing the level of inconsistencies in information cirulating between the European library networks.

A last system can be added to achieve quality bibliographic databases is that of recataloguing. Perhaps this seems a utopia, but the Consortium of European Research Libraries[11] could be another way open to it. In this respect, we must mention the need to raise general concern for quality, as participation in cooperative projects and in collective catalogues effectively reprensents a multiplication of errors factor of which we must be aware and sympathetic.

It is highly likely that this is not sufficient and that in the same way as we are analyzing the correction of existing information, we should be analyzing what other type of necessary information we are not showing in the bibliographic records. The recent experience of a crossing in the Rebeca database of PROINRED (Network of Public Libraries of the Ministry of Culture) and ARIADNA reveals the importance of duplicating information such as the ISBN number or that of the Legal Deposit. In this case the crossing was merely made with a single entry datum, the ISBN number, a system which is frequently used for the downloading of records by batches from CD-ROM, introduced en masse and without carrying out the algrorithm of the check digit. The results were that

10 The Department of Library Science and Documentation of the University of Granada also participates as a resarcher, and the British Library, the Royal Albert I Library, the National Library as users of the application.

11 Proposed Data base of Printed Materials to 1830. Computer Format and Descriptive Cataloguing Specification / Report and recommendations prepared by the Consultant, Anthony G. Curwen. // Consortium of European Research Libraries, 1993. - Photocopied copy.

out of 106.483 records to confront 101.710 were found, of which a minimum of 26.521 were duplicated.[12]

We should not forget that the facilities provided by the use of computers for the retrieval of information mean that often simple search terms are used which are therefore very beneficial, which although they may not be in accordance with cataloguing practices, they are of a high quality. We should take into account these retrieval procedures, such as the aforementioned one, in order to increase the usefulness of our data bases.

Unfortunaley, we do not have statistical information on the comments sent by OPAC, however, we can adduce the high reduction in failures in the reading requests in the reading room as proof amongst other reasons of the reduction in errors.

12 The analysis of the appointment of ISBN numbers shows that there can be a dupliation in the appointment of ISBN numbers in different editions of the same title and in the different volumes of a work in various volumes.

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 413-422.

LIBIS-Net and CALIBRE

ALBERIC REGENT
University Library, K.U. Leuven[1]

Libis-Net

Historical background

The splitting of the university, when the Catholic University of Leuven became a separate institution, was the real take-off of the library automation.

After a market study commissioned in 1974, a co-operation contract was concluded with the university of Dortmund and with IBM, which lead to the development of the DOBIS/LIBIS system.

The production of the first modules, cataloguing and searching, started at the K.U. Leuven in November 1977.

Both universities transferred the software ownership to IBM, who sold the software successfully worldwide. There are DOBIS/LIBIS systems today operational in more than 30 countries on all continents on behalf of hundreds (est. 800) of libraries. Around 1980, DOBIS/LIBIS already provided a full and detailed functionality, covering all library activities in real time.

As the system was distributed from the beginning with the source code, not only the commerical vendor but also the installations them-selves continuously improved and modernised the system. This lead to various versions and releases.

Composition

Besides the installation of a modern integrated on-line library management system, it was extremely important for L.U.Leuven to have a system corresponding to the geographical decentralization of its libraries, which are spread over the city and the various campuses. At the same time the system had to accept and respect the different identity of these libraries.

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

The software of Dobis/Libis allows very flexible networking facilities on 3 levels: the general system with the common shared catalogue, the institution-network library level and the branch library level.

LIBIS-Net, the DIS/LIBIS system based network installed by the university of Leuven attracted several academic, business, school and governmental libraries in Belgium which affiliated themselves with it.

(a) University Libraries

K.U. Leuven (Catholic University of Leuven)

U.C.L. (Universite Catholique de Louvain-la-Neuve)

KUB (Catholic University Brussels/former UFSAL)

R.U. Gent (State University of Ghent)

FNDP (Faculties of Notre Dame de la Paix - Namur)

FUSL (University Faculties of St. Louis - Brussels)

(b) Special Libraries

BB - ABB (Belgian Farmers Union & Insurance Cy - Leuven)

IBM : IEC and EHQ (International Education Center - La Hulpe & European Headquarters - Paris)

IHE (Institute of Hygiene and Epidemiology - Brussels)

Belgian Parliament - Brussels

Flemish Council - Brussels

Academia Belgica (Belgian Academy - Rome)

(c) Other Institutions of Higher Education

KVH (Catholic Flemish Institute of Higher Education, Antwerp)

KMS (Royal Military School)

ROLDUC (Catholic Seminary - Kerkrade NL)

(d) Documentation Center

KADOC (Catholic Documentation Centre, Leuven)

Organization and financial aspects

LIBIS-Net is a non-profit organization in which all member institutions are participating directly in the management of the network. They are all represented in an Advisory Council, from which delegates have a seat in the Board. The Board outlines the general policy and the managment directives.

A Technical Committee coordinates various Working Groups, which are responsible for solving common problems, policies, rules, manuals, training, etc. A central team of librarians and technicians takes care of the day to day running and production. This team is paid via a fixed contribution of the members in addition to the variable cost for 'system-use' of the users, which is destinated to hardware, software, maintenance and working cots.

LIBIS-Net is using a dedicated CPU, located at the Computer Centre of the University of Leuven. At the same time it takes advantage of the synergy with this Centre, resulting in a yearly decrease of costs for the members or in project reinvestment.

The aim of this organization is to emphasize and strengthen cooperation and partnership.

Standardization and local flexibility

The member-institutions have full independence for local catalogue creation and access and for all administrative functions via completely isolated and reserved local systems and files.

For the common shared catalogue however, an important standardization effort was made in format, cataloguing rules and access mechanisms.

The Database - some figures

LIBIS-Net provides access to various databases:

(a) The LIBIS-catalogue, containing book and periodical descriptions of the network member institutions (close above 3.000.000 copy records)

(b) The CCB (Collective Catalogue of Belgium), a yearly batch loaded national union catalogue of books, with exclusion of the LIBIS-Net records (1.500.000 copy records). This catalogue is also published on CD-Rom.

(c) ANTILOPE, a national catalogue of periodicals description and holdings. ANTILOPE is maintained on the VUBIS-system at the UIA (University of Antwerp) and transfers regularly records into LIBIS-Net via a batch load (50.000 reords which will soon be expanded with other external files up to 270.000 records).

(d) The Bibliographic Pool is a 'reserve' of LC-records, mainly on behalf of precataloguing activities but also accessible in searching. The pool is monthly updated via a subscription to the CDS (Cataloguing Distribution Service) of the Library of Congress (2.500.000 selected records).

Latest developments

(a) Integration with other databases

LIBIS-Net intends to expand its services with other databases on the LIBIS host, on CD-ROM servers or via gateways to external servers.

K.U. Leuven gives integrated fast access to CD-ROM servers installed on many various LAN's at the University.

An evaluation of First Search of OCLC was recently concluded, an offer for a periodicals article scanning service has been negotiated with EBSCO and the best way of implementation is under study. A specific working group is evaluating other possible services.

The other partners in the network will be invited to participate in this integration, of course within the legal rules of shared use of database services, which is often very complicated due to site limitations.

(b) GUI (Graphical User Interface)

DOBIS/LIBIS was initially made for terminal usage (IBM 3270) and during many years the screen layout was never altered.

Today, a new GUI under OS/2 and Windows has been developed, giving access via windows, mouse steering and button clicking to LIBIS-Net.

A general overall implementation of this GUI is not expected.

It will take place selectively as the replacement of the old terminal-park is for many institutions an important investment. Other library applications requiring multi-functional PC-stations may speed up to the process.

(c) New searching tools : command in addition to menu driven access

The dialogue - menu driven with mnemonic instructions codes - was a concept maintained consistently throughout the product.

LIBIS-Net just developed a new OPAC with command driven possibilities for experts or other users familiar with this type of systems. The command driven approach may considerably speed-up Boolean searching expressions.

(d) Database enrichment from the bibliographic pool

The bibliographic pool was initially installed in order to improve cataloguing and acquisition functions.

At this moment a catalogue enrichment with LCSH (Library of Congress Subject Headings) takes place, based on matching LC and LIBIS-Net records.

(e) Testing of Internet library-access for end-users

A first experiment with free Internet-libraries access just started at the public catalogue room of the K.U.Leuven Central Library. A WWW-browser with specific library pages has been installed and users reaction and results will be evaluated.

(f) Link with IMPALA

A link with IMPALA, the leading Belgian document delivery system installed at the UIA (University of Antwerp), was a long-term requirement for many users. However, a technical link with a heterogeneous system was not evident. After development of a full-fledged document delivery system on LIBIS-Net the 'handshake' with IMPALA was successfully implemented.

(g) Image

Last but not least, LIBIS-Net closely follows the new trends and developments in relation to image handling.

ELiAS, the current owner of the DOBIS/LIBIS software, just developed a link between DOBIS/LIBIS and the so-called Digital Library project of IBM. Here a search in the catalogue can be expanded with displays of digitalized text or images.

LIBIS-Net is ready to function as a text-site for this development. KUL-Net, the new fiber-optics high speed network of the University could offer an excellent 'transporter' for this type of information, still requiring a very high telecommunications capacity.

(h) CALIBRE

DOBIS/LIBIS systems are important information providers and their common bibliographic potential is enormous.

CALIBRE (Common Access to Libraries in Europe) is a program initiated some years ago by a group of key DOBIS/LIBIS installations in Europe. Their intention is to link their systems via a specific network-structure and to set-up an

organization for efficient cooperation in making their information available to each other.

CALIBRE aims to be important for information distribution in Europe.

CALIBRE

Why CALIBRE?

Does it makes sense to connect library catalogues when millions of databases are available via Internet and other networks and various software tools organize access to these databases?

The answer is yes. I understand librarians' enthusiasm for these new tools, but are we not erecting new walls between end-users and these new possiblities? Are we not forgetting that we are still teaching them how to benefit best from one single system, the OPAC of our library, while carefully adding CD-ROM databases with another interface?

A universal library catalogue interface will never exist. The most important step forward is the development of Z39.50, but this protocol is mainly reserved for a new generation of systems. Its overall practical implementation can be expected many years from now.

And how do we obtain the document once we are lucky enough to find a valuable reference in this labyrinth of catalogues?

Can we obtain it? Where and how do we order it? Where and when is it delivered? What does it cost and how do we pay the provider?

Here CALIBRE intends to be a possible answer. It is now ready for production, being developed with existing technology. It uses an interface of today, familiar to our users and it can easily be implemented by every DOBIS/LIBIS library right now.

Via international agreements between the partners, the CALIBRE Network will guarantee swift document delivery under rules and conditions known by the user.

Specifications and Development

After a technical meeting on networking in Lueven the Spanish network RUEDO was investigated in depth and evaluated.

The Spanish DOBIS/LIBIS users wre indeed 'fore-runners', when they created a structure for cooperation around a union catalogue of various institutions installed at the computer system of the University of Oviedo. The model of RUEDO was used as a starting point for CALIBRE.

In December 1993, during a two days meeting at the Swiss PTT Headquarters in Bern, the specifications and the macro design for CALIBRE were drawn by the CALIBRE Project Group.

The Hoger Institut der Kempen (HIK) in Geel (Belgium) was an early partner in the project. It had recourse to external European financing for the development.

The specifications of the CALIBRE PROJECT GROUP were further worked out and developed by SOLID Automation, a spin-off company of HIK.

In May a first prototype was presented to the CALIBRE Project Group were further worked out and developed by SOLID Automation and the K.U. Leuven. The technical realization was also entrusted to SOLID Automation, a spin-off company of HIK.

In May a first prototype was presented to the CALIBRE Project Group. After this, the project partners had the occasion to test and evaluate the realization. During the following months some minor corrections together with some interesting new features were implemented.

The result is a new module for DOBIS/LIBIS, perfectly integrated as a new main function in the standard software. It has been developed completely in 'DOBIS/LIBIS style' and it includes several easy to learn subfunctions.

The Architecture of and the Access to the CALIBRE Network

The basic principle of CALIBRE is the establishment of several union catalogues in Europe. DOBIS/LIBIS installations belonging to a specific geographical area are connected to a DOBIS/LIBIS node system in which they download regularly their data. These node systems are interconnected.

CALIBRE will give all connected libraries or even individual authorized users from office or home the possibility to search all these union catalogues, containing the data of their member systems.

Important is that access will take place via one local system, via one single logon and through one identical DOBIS/LIBIS user interface.

This means that the learning curve is minimal. There will be no skipping around from system to system. The same search techniques can be used on all node systems. Document delivery will in most cases be successful. These are important advantages compared to unorganized browsing Internet systems.

Communication

The international 'CICS to CICS' communication between the nodes currently uses X-25; but this is totally application independent. When necessary there is no difficulty in switching to other communication techniques.

Main objectives and functionality

(a) end user searching of remote catalogues

The authorized user can call up all node installations using its own DOBIS/LIBIS application. All standard searching facilities of DOBIS/LIBIS (single search and browsing, truncated and boolean) are available.

In addition, the inclusion and accessibility of a special file containing the 'collection strengths' provides the users with a better orientation.

(b) Interlibrary Lending and document delivery

After identifying the requested document(s), the library or the authorized end-user can order the document in its orginal form via interlibrary loan or in a copy form by mail or by fax.

The system automatically generates order forms and includes the descriptions of the desired documents in the faxes automatically printed in the library where the item sought is stored. A screen template the fax editing of a reference which is not present in the database, e.g. for articles.

(c) record & file transfer

Descriptions, even large collections of records, can be saved and immediately downloaded int he users' bibliographic pool for cataloguing or acquisition purposes. It is also possible to download only selected fields of the description.

(d) improved (electronic) communication for library staff

The communication functions allow generation of faxes from the user-station, also for the communication of information not directly related to the standard CALIBRE activities.

Guaranteed Document Delivery

Due to organizational agreements between the participating libraries, CALIBRE can - in most cases - guarantee to the users a successful delivery of the requested document.

This is another major advantage compared over many other bibliographic databases or library catalogues where finding a relevant bibliographic reference is often the start of a long and painful process, ending with a frustrated user....

Other Functions

(a) Online proces follow-up for requester and provider

CALIBRE allows its users to follow-up the document delivery actions step by step, from requester and providers side, via functions for status access and order adaptations.

Management functions give overview of all CALIBRE orders by user, all orders sent out on behalf of a specific person or institution, all orders from the ILL department etc.

These orders can also be retrieved by status code.

These status code tables contain stardised information such as 'more information needed', 'executing', copy sent', etc.

(b) Accounting

CALIBRE is, like most document delivery services, a paid service. The national and international communication, the delivery of the document by mail or fax copy are, in most libraries, entireley or partially compensated by the user.

CALIBRE keeps track of all these cost elements, which can be individualized per institution, while maintaining an accounting system for the whole. The price of a transaction can be determined per country according to a number of parameters. Every institution can, if it wishes, open an account for applicants who are then charged automatically.

Libraries are free to apply their own charging policies, as the accounting is maintained on the local system.

There are also provisions for the use of all types of credit cards. So, CALIBRE is really future-oriented and ready to be used from office or home, without going to the library.

(c) Authorization and security

User authorization to CALIBRE is a responsibility of the local system, while the node system protects the access to document delivery and library functions in accordance with the information about the user received from the local system.

Software Distribution

The software, developed by 'SOLID Automation" consists of two packages : one for the node systems and one for the connected installations. It has been made available for free to the node systems and to the institutions participating in the project.

Participation in Calibre

As node-systems, following institutions take part today in the project:

for Spain : Universidad de Oviedo

for Belgium : K.U. Leuven

for the Netherlands, Iceland and Scandinavian countries : T.U. Delft

for Germany : the Deutsche Telekom

for Hungary : the National Library of Budapest

for Switzerland and Austria : the Swiss PTT

for Italy : the Instituto Superiore de Sanita

Next steps...

Implementation in the various node systems is ongoing. The realization period to set-up the entire interconnected network will depend of the speed of delivery and the loading process.

We know that uploading data into the node databases is a process that takes time. The last quarter of 1995 is a provisional target date for full implementation. In the meantime the Project Group intends to set up a legal body and an organizational structure to define the conditions and terms for cooperation, to standardise and improve the content of the database where possible, to open CALIBRE to non-DOBIS/LIBIS systems and to streamline the operational actions.

If all DOBIS/LIBIS installations in Europe implement the software, CALIBRE will become one of the larger interconnected library networks in Europe, comprising more than 25,000,000 documents available on request via other document delivery projects and the implementation of Z39.50 may contribute to the openess of CALIBRE to other systems and users.

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The LIBER Quarterly, 5 (1995), 423-429.

Science Policy Programming Administration

FREDDY COLSON
Ministry of the Flemish Community[1]

To begin with, I'd like to dwell a little bit on certain geographical and constitutional facts and figures about Flanders. Even though I hardly can be considered to be the most competent person to give a lecture on constitutional law - and as a consequence: I will not - I think it is important to provide you with some insight into this country's structure. Maybe, after my talk, you might feel tht I have instead obscured your view. However, let us agree that; one: you will forgive me and two: that this will be primarily the result of the complicated political structure of our country.

The federal state of Belgium is divided into 3 Regions: Flanders, Wallonia and Brussels, and into 3 Communities: the Flemish Community, the French-speaking Community and the German-speaking Community. Regions are responsible for the so-called territory-related matters, such as: the environment, infrastructure, industrial policy, housing etc, while Communities are competent for the so-called person-related matters such as: health care, well-being, education, culture and so on. It is important to note that, at least in theory, these competences are exclusive: neither the federal government, nor regional governmets can interfere on matters belonging to the Community's competence and vice versa. Each region and each community has its own independent parliament and its own independent government. From the first phase of the reform of the Kingdom, Flanders decided to combine the competences of the Flemish Region and of the Flemish Community into one parliament and one government. This decision is of a particular importance to science and technology, since the regions are competent for industrial research, and the communities for education and thus for academic research.

The Flemish region is located in the nothern part of the country and the Flemish Community - person-related matters, remember - comprises all people living in Flandes/the Flemish Region and the Flemish-speaking inhabitants of Brussels. Wallonia/the Walloon region is located in the south and its inhabitants,

1 Paper presented at the LIBER Annual Conference, Leuven 1995.

together with the French-speaking people of Brussels form the French-speaking Community. As a community, Flanders has 6 Mio inhabitants, while as a region we have 5.6 Mio, meaning exactly 60%, respectively 56% of the total Belgian population. These 56% "regional" Flemish pay 61% of the Belgian taxes, contribute 62% to the GNP and are responsible for over 70% of the total Belgian exports. These data led a former minister-president to the conclusion that Belgium is a country which is developing at different speeds.

As some of you shold know and others might know, a new Flmish government has been installed recently. In this government one Minister has been given the responsibility for science and technology. In presenting the government's program the Minister-President stressed the importance its government attaches to science. This program, called: "Beacons for the 21st century", announces a substantial increase of government financing for science and technology.

The Flemish Government, together with the Flemish industry, aims at increasing these financial means to 2% of the gross regional product. It has to be noted that this objective is the continuation of clearly pronounced trend during the preceding period. Between 1990 and 1995, the Flemish science policy budget - which also includes: technological policy - increased by more than 30% from 800 Mio US $ to almost 1.1 billion US $. Achieving 2% of the GRP means an increase by another 275 Mio US $.

Taking into account the challenges Flanders is confronted with, this increase is not a luxury but in fact a sheer necessity in order to maintain and to inrease our level of welfare and well-being. In formulating our policies, we have to pay special attention to trends, also important internationally, such as:

- The fact that boundaries between the so-called types of research have almost disappeared. As a matter of fact no one ever believed in a clear-cut distiniction between fundamental research, applied research and technological development. The present evolution, however, implies that policy makers have to consider two seemingly contradictory objectives: i.e. stimulating the social and industrial valorisation of research - and running the risk that the demands of industry on university research become increasingly suffocating - and saveguarding the autonomy and the independence of fundamental research in universities, or to be more exact: protecting the individual initiative of the researchers and research-teams, whose creativity and curiosity is the only guarantee for the advancement of science and technology.
- The disappearance of the almost exclusive relationship between a basic scientific discipline and a sector or domain of application. Chemistry, for instance, is not only important for the chemical industry, but also for the production of very large integrated circuits

which would otherwise be impossible without the input from chemical research.

- An evolution of particular relevane to Flanders is the fact that university education and academic research are becoming less and less intertwined. This does not mean of course that the results of academic and other research should not remain the substratum and the basis of high-quality academic reducation. However, taking into account the size and scale of Flanders, one can imagine that university research policies and educational policies will be developing separately in order to provide students with an education by top professors and at the same time to maintain or to create the necessary critical mass to carry out top quality research. As a matter of fact, Dutch colleagues informed me yesterday that the reform of the Dutch higher education systems will develop along these lines.
- The internationalisation of scientific research, important for any country, also bears a specific significance in the case of Flanders. As a small region in the heart of Europe, blessed with a highly performant scientific potential, Flanders can act both as a facilitator and a catalyst in this internationalisation process.

The broad lines along which the Flemish Government plans to act in facing these and other challenges are laid out in the program I referred to earlier.

1. Fundamental research

During the last 15 years, the responsibilities for science and technology of the Flemish Community developed from "competent for applied research for the matters they are competent for" and a budget of hardly 20 Mio US $ to the primary competence for science and technology - granted by the revision of the law in 1993 - and a budget of 1.1 billion US $. However, due to a number of reasons - among which the not very favourable economic situation of our country - the financing of fundamental non-oriented research remained practically the same in nominal value - and thus decreased in real value - during the eighties. During that period education was still the competence of the Federal Government.

In the first half of the nineties, after the competence for eduction had been transferred to the Communities, the increase in fundamental research funding was equal to the increase in the means for industrial research. The present Flemish Government wants to accelerate the pace of increase for the financing of fundamental research. Three instruments will be reinforced in this respect:

a) an increase in the basic financing of the university personnel and operation cost;

b) a substantial increase in the extra funds for non-oriented research, allocated to each university and distributed within each university on a competitive basis;

c) an increase in the financing of non-oriented research and of doctoral students and post doctoral researchers through the National Science Foundation, where financial means are allocated through an inter-university competition.

However, this objective of the Flemish Government does not translate into a blank cheque to the universities. On the contrary: in exchange for greater autonomy and increased research funding there will be also greater accountability and rationalisation. Universities will be asked to strengthen inter-university cooperation, to focus on the building of centres of excellence, to implement adequate mechanisms of quality control and to provide the Government with the necessary information to control ex post the management and the performance of the universities and their research teams. At the same time, universities, research institutions and companies will be stimulated to elaborate concrete, coherent and comprehensive research policies which can be confronted with each other and with the priorities set out by the Government.

All Flemish universities face one common problem: the need to replace 50% of their academic staff in a period of ten years. The Flemish Goverment will put in place instruments to facilitate this operation, instruments that have to be integrated in the human resources management at the universities.

2. Oriented Research - Applied and Industrial Research

Flanders is a country of SME's. There are not enough large companies in Flanders in order to act as an adequate market-mechanism to formulate demands towards SME's which would stimulate them towards technological innovation. Therefore, the existing instruments for industrial research funding will be reviewed and, if necessary, re-oriented in order to:

a) increase the capacity of SME's to absorb available technology, including the setting up of more approprate mechanisms of technology tranfer;

b) improve the opportunities for SME's to participate at or to execute in house research or technological development projects;

c) stimulate the creation of spin-off companies or, more generally, the founding of new high-tech companies.

Another mechanism will be investigated, aimed at the social valorisation of research which, past the stage of fundamental research, has not yet attained a level at which it is interesting for industry or the private sector or which is of such a nature that its results are important from a social or cultural viewpoint but offer no perspective towards industrial or commercial valorisation whatsoever.

3. International Cooperation

Although the Flemish Government believes that the setting up of international scientific and technological cooperation is the prime responsibility of universities, research institutions and companies, it will go on assuming the role of initiator and stimulator towards certain apsects of this cooperation.

The instruments, already in place for stimulating the participation of Flemish researchers in international research efforts, such as the 4th framework program of the EU or to improve their access to large research facilities, will be strenghtened. The bilaterial cooperation, already under review during the previous period, will be more focussed on a limited number of countries and regions but, at the same time, will increase the opportunities for building a more intense and long lasting relationship. The component of inter-university cooperation will also be present in this mechanism.

4. Information on Science and Technology

Information on science and technology requires a multi-dimensional policy which pays attention to the different target groups as well as to the different objectives to achieve.

For the general public, these objectives can be summarized in three words: awareness, sensibilization and accountability. It is the Government's task to increase the awareness of the population with respect to science and technology and the impact the latter have in the day-to-life. Educating the population in general and the youngsters in particular in order to assure the need for researchers in the future is a second task. The general policy, approved by the previous Flemish Government, will be continued, extended and strenghtened in order to create a contiuous flow of information to the Flemish population.

Informing "the world" about the Flemish research potential, both in universities and companies, is a second pillar of this policy. Instruments such as thematic publications, the W-line (science line) and databases on current research in Flanders will be optimized and the last two will be made available through Internet. The existing cooperation with similar initiatives in other European countries will be continued and intensified.

Providing information to researchers is, with respect to this topic, of special importance.

The internationalisation of science and technology referred to earlier, is reinforced by the existence of communication networks between researchers. Belgium as a whole is in the not very favourable position - and this is putting it mildly - of having access to the international research community's network through Belnet, a facility operated by the Federal Government and providing a capacity up to 2 Mb and experimenting with capacities of over 600 Mb. As far as we know, the Federal Government has no intention to improve things in the short term. At the same time, Flanders is considering the creation of Telenet Flanders as a comprehensive telecommunication initiative. The upscaling of the facilities for Flemish researchers to participate in international communications networks must be one of the priorities of the Flemish government in creating Telenet Flanders.

Providing documentary services is a second aspect of this topic on scientific and technological information. The scientific library is and will remain one of the basic tools for researchers. I am not that astute to predict what these libraries will look like ten or twenty years from now, but researchers will remain dependent on the availability of scientific information which is shared collectively, rather than on a person-to-person basis as is the case in the communication networks mentioned earlier. Here again, Flanders can be seen as the driving force in Belgium. The Flemish scientific libraries, members of the VOWB, at which also representatives of the public libraries paritcipate, developed initiatives to create a central Belgian catalogue. In addition, they are also busy complementing and completing Antilope, the catalogue of journals and investigating the possiblilities and opportunities of a Flemish Electronic Information Centre. For years, the Flemish Government supports these actions, morally as well as financially. The VOWB aims at integrating collective catalogues, bibliographical data and directories and primary sources into this centre. In order to achieve this, there are two probems to solve: a competences of Flanders and Belgium. The ultimate goal however must be to provide researchers with the riches of international literature as quickly as possible, and why not: instantly. Although neither the Flemish Government, nor the Flemish Minister for Science and Technology has taken a decision on this proposal, I feel quite confident to say that he is considering it with a positive prejudice. The recommendations of my administration towards the Minister support the viewpoint of the VOWB and encompass a scheme to finance VOWB's project. However, we think that the chances for success for such an operation depend largely on four factors:

- international cooperation with public and private partners, with of course the Netherlands as a "natural" first choice, but not limited to one specific country. This holds true for technological problems and

for legal/commerical problems. The existing collaboration between ISI and IBM or other similar initiatives could provide the perfect opportunity.

- internal cooperation between Flemish universities. I feel that by now we should have passed the point were the question "who provides what" is more important than the question "what can be provided collectively". This also implies formulating a common policy towards collection formation and specialisaton of individual libraries.
- extension of the initiatives to schools of higher learning - which is already the case to some extent - and, in the long run, opening the university libraries and their documentary facilities to the general public;
- extension of the EIC-initiative towards non-university research institutions and companies, both as information providers and information users.

Maybe it is superfluous to add that Flanders is not a region which keeps to itself, forgetting that it still is united with the other regions and communities in one country. We would welcome these other Regions, Communities and the Federal Government to join us as full partners in the development of this virtual library.

In Zusammenarbeit mit der Akademie der Wissenschaften Rußlands:
Ein Prachtfaksimile einer Handschrift aus der
Russischen Nationalbibliothek,
St. Petersburg

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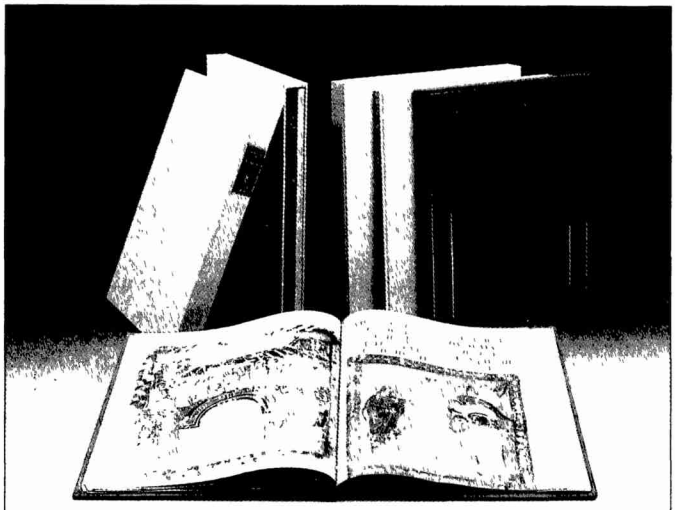

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European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 431-439.

The Information Highway and the Cultural Heritage: Thoughts on a Concept for Die Deutsche Bibliothek

KLAUS-DIETER LEHMANN
Die Deutsche Bibliothek[1]

1. Libraries in the process of change

Today, as we near the end of the 20th century, the substance of our libraries is confronted by a threat of truly catastrophic proportions. We now know that because of the acid they contain, books made after 1850 of industrially produced paper have a life expectancy of no more than about 100 years. Practically all books and documents printed during the past 140 years are endangered. Our textual culture is becoming yellow and brittle - a process that goes on silently and invisibly and that will end in the destruction of our cultural heritage if nothing is done about it. Further damage is also to be feared as a result of constant use and inadequate storage conditions.

Texts and information, however, have long since ceased to appear exclusively in print. Though not yet statistically significant, there is a dynamic, rapidly growing publishing sector concerned with the new forms of electronic publications. Print media are now just one of many forms of issue available. The fragile and fleeting nature of electronic publications presents us with new problems with respect to the preservation of source materials.

At a time in which the vision of a global virtual library appears technically achievable, libraries appear to have begun to self-destruct. Traditional library collections are literally deteriorating, and by nature the electronic library is hardly amenable to physical preservation, particularly when it exists only virtually within a network on servers.

Have libraries become unimportant? Are we now experiencing a profound transformation of our existing academic and cultural infrastructure - a movement away from the libraries? The fascination of new technologies tempts many

[1] Paper presented at "Libraries and Modern Societies. International Seminar." National Library of Russia, St. Petersburg, 24 - 25 May 1995.

people to view libraries as dusty remnants of another age and to look to the future. The promise of universal networking, however, is fleeting and subject to manipulation, and it presents us with considerable new problems. We cannot ignore our responsibility.

We can accept only those solutions that combine both elements: access and preservation of sources. Libraries belong to more than a single generation. They link past and present in a magnificent intellectual and literary context.

But while our commitment to our printed heritage is very important, we must recognise as well that libraries cannot continue to exist without progress. And it is essential that their further development be governed by a culture-oriented mentality and the needs of the academic community. And these now encompass electronic information technologies as well. In the same way libraries once established themselves as houses of books they must now move on to become electronic archives: real homes of scholarship and nodes within a global virtual library at the same time.

In the case of electronic publications, more is at stake than simply identifying, selecting and administrating them in libraries, as it is also essential to verify the authenticity of texts and to protect intellectual property rights. And for this very reason libraries cannot be permitted to wait in the wings. If they miss the opportunity to play an active role in establishing their position libraries risk losing their function both as providers of information and as the objective memory of our cultural heritage. Information must be defined on the basis of content and not of the medium in which it appears. Paper is not an appropriate criterion for the exhaustive definition of library responsibilities. The immediate issue, however, is not the libraries themselves but their users. Libraries in our society guarantee free and unrestricted access. If libraries exclude certain information media in the future, it may be impossible to prevent the erection of economic, political or technical barriers to access. How could we then avoid the development of a situation in which society is divided into privileged information haves and excluded information have-nots?

2. Libraries in the Network

Without doubt the changes have been substantial. Libraries will have to learn to share their position with other institutions. In exploiting the dynamic nature of digitised knowledge, however, they will also be able to harvest a wealth of new functions. And this will require - now more than ever before - products and user functions provided by a library services network that extends well beyond the local library level.

That, for Europe in particular, is a significant step. Libraries represent an essential component of Europe's scientific-academic and cultural infrastructure. They are capable of providing decisive support towards promoting inter-cultural

dialogue and the exchange of knowledge and information. Europe's identity will always be found in the interplay of its diverse cultures. Pluralism is the fundamental pattern for European unity, not, however, as a haphazard multiplicity, but rather as a form of co-existence that generates a truly European profile.

Internal pluralism in Europe can be effective only if it remains vital and grounded in a strong infrastructure. And for this reason alone it is important that we invest in our libraries.

Yet Europe's libraries still find themselves in a situation characterised by fragmentation. Where openness is needed, the end-user is much more likely to encounter obstacles. Analysis makes it quite clear that existing deficits in information technology result primarily from the lack of communication among various systems and from an inadequate functional interplay among the services that are provided. Our world of information is heterogeneous, networking is complex, and users' requirements are highly specific. What we need now is for users' needs and system capabilities to be harmonised in such a way that existing European library structures become components of an interconnected system, thus enabling available resources to be made accessible in a wide variety of ways.

Networking will play a key role in library policy. Its aim will be to help enhance the readiness and availability of library resources and to facilitate their interconnection with the information and communication infrastructure to build the "information highway" for integrated cross-border services. The technological infrastructure must be oriented towards international developments and may not in any event be restricted to a national or a European framework. With respect to their investments, libraries must be assured of the reliability of anticipated planning decisions and of concentrated support for the modernisation of their network infrastructure.

Three European national libraries are currently building new facilities scheduled to be opened in 1996/97: the British Library, the Bibliothèque Nationale de France and Die Deutsche Bibliothek. New buildings are much more than mere external facades; with their modern technological and organisational infrastructure they enable libraries to provide new and expanded services.

3. Die Deutsche Bibliothek as an electronic archive

Die Deutsche Bibliothek has designed its technological infrastructure specifically to meet the requirements of future networking. In-house systems will employ the backbone ATM (asynchronous transfer mode) network standard, which provides real-time capability for multi-media and a transmission speed of 155 Mbit/s. for each terminal unit. The individual terminal units will be interconnected via Ethernet using an ATM link.

Another important decision with respect to infrastructure pertains to the terminal units themselves. With multi-media technology at the workstation, the PC becomes a full-fledged communications terminal. In the multi-media reading room, text, sound and moving images will be offered exclusively on PCs (MPC).

Die Deutsche Bibliothek is obliged by law to collect, index according to the principles of national bibliography, permanently preserve and provide for public access all publications (text, image and sound) that appear in Germany as well as all German-language publications issued abroad.

In nearly every part of the world, the legal deposit system for national libraries provides the foundation for the preservation and documentation of national cultural and intellectual heritage.

New forms of electronic publications are appearing in increasing numbers, either on data media (CD-ROM, floppies, etc.) or within a network (computer and network as a new medium). They are rapidly becoming more and more important for research and academic education in particular.

Existing law enables Die Deutsche Bibliothek to require from producers and collect at least those electronic publications distributed in physical form.

Nevertheless, specific hardware and software requirements impose a considerable burden upon library operations. Neither have material specifications (documentation, software use) been clearly defined nor has it been possible to establish a uniform concept for access.

In view of the technical possibilities for distribution the differentiation between physically distributed and network distributed publications is of questionable value.

Die Deutsche Bibliothek derives its obligation to collect electronic publications directly from its legal mandate. Publications must be defined according to content and not to the medium on which they appear.

In order for Die Deutsche Bibliothek to fulfil its responsibilities as an electronic library a number of different factors must be taken into consideration.

4. Long-term availability of electronic publications

Publications must be in digital form and readily accessible. This applies particularly to data-medium publications on floppy or CD-ROM.

Dynamic network publications can only be collected through the storage of periodic editions (logging). The intervals may vary depending upon the need for currency. A variety of differentiation and classification problems present themselves (language, nationality, qualification criteria, the definition of publication or edition, etc.). Due to the lack of relevant experience a phased approach will be needed - as it will as well with respect to the definition of electronic publication and electronic communication.

Electronic products must meet material requirements analogous to those for print media; they must be supplied complete with packaging, documentation, handbooks, etc. and be accompanied by the software needed for use.

In addition to publishers and producers, hosts and gateway providers may also be required to submit publications under legal deposit. Issues such as the choice of comprehensive or exemplary collections, preference for certain data media in the case of parallel publication and financial compensation are yet to be decided.

A decisive factor in the fulfilment of the responsibilities of Die Deutsche Bibliothek will be its ability to make both print media and electronic publications available to future generations while performing the digital retro-conversion of earlier publications in a sensible manner. This presupposes not only mature technology and the conversion of electronic publications to new technologies or the reproduction of data at regular intervals because of their limited durability but also the assurance permanence for short-lived private servers through timely sharing of electronic publications.

Long-term availability will require the acceptance of a highly uniform archiving system derived through reformatting and conversion from the respective different forms of distribution and use. Of decisive importance for the technical solution are the life-expectancy it provides, the degree of reliability ensured by standardisation and the opportunity to cooperate with other institutions.

5. Long-term availability and access

In archiving electronic publications we must focus upon accessibility from the start. The most suitable solution for this purpose is a central server concept with a fast local network interconnected via open interfaces with the wide-area network. On-site use takes place in the reading room on multi-media workstations. As in the case of print media, it is free of charge. This also helps ensure that legal agreements with publishers and producers regarding rights of use (electronic sharing and continuing use of data) are complied with.

Use via open networks by distant users from their homes or workplaces is subject to charge. Charges cover license fees for publishers and producers as well as the costs incurred by Die Deutsche Bibliothek for maintenance and distribution. Rights of access, licensing rights and accounting methods are to be negotiated with the publishers. With its own databases Die Deutsche Bibliothek will serve as an important node of communication within the network of the international information highway. Access will be provided in close cooperation with other national libraries. Die Deutsche Bibliothek gains important new functions through the networking concept. In addition to its role as an information server, it will also be in a position as a catching server to provide services offered by other national libraries to German libraries and to transfer

access. In this way, a virtual library will gradually take shape. Valuable experience in the use of distributed databases for national bibliographic services has already been gathered.

6. Bibliographic control

Long-term availability is one side of the coin, bibliographic control the other. Precise bibliographic search terms are needed to make controlled access possible in the first place; at the same time they provide evidence of intellectual property rights and make electronic publications referenceable on a reliable basis. National libraries have always been important producers and suppliers of national bibliographic services - usually in electronic form. They must now establish similar rules for electronic publications and comply with them dependably in an international context.

In this regard multilingual authority files on distributed servers are becoming increasingly important.

Electronic publications also offer additional bibliographic tools, however. Among them are the linking of bibliographic data, tables of contents, abstracts and structured full texts; hyperlinks between multi-media elements; navigational tools for networks; information about the quality, cost and status of electronic publications (value-added pages). Die Deutsche Bibliothek recognises the need in this area for cooperative developments in concert with libraries, academic societies and software producers.

7. The information infrastructure of Die Deutsche Bibliothek

Electronic publications may contain texts only or combine spoken language, text, documents and images in a single application. For this reason a system architecture must be designed in such a way that the various media can be stored, transported and reproduced in the system. If we are looking for a durable, uniform storage medium capable of storing multi-media data digitally in a standard format, the CD-ROM or the WORM may be the most suitable solution. It has been predicted that within five years media capable of allowing long-term storage for periods of more than 100 years will be available. Today, such media are already the subject of standardisation efforts.

The overall technical information system for on-line presentation of electronic publications is implemented by Die Deutsche Bibliothek in six sub-components:

- CD-ROM server system (multiple servers and jukeboxes)
- Multi-media central server (high-performance UNIX workstation)
- Service centre (products for users)

- User registration PC
- Network
- Installation workplaces

The selection is governed by the state of technology at a given time.

Network planning must take into account the multi-media nature of use, which will require real-time processing and high-speed networks.

8. Distributed information servers

An especially important feature of electronic publications is that they are available without regard to a particular location or time. In order to exploit the full benefits of this characteristic the electronic archive must have standardised interfaces for communication with the outside world. These include the user protocols SR/Z39.50 and the OSI and TCP/IP protocols. In particular, the interoperability provided by international standards makes the following applications possible in distributed information systems:

- searches in interconnected OPACs
- full-text retrieval of electronic publications
- linking of searches, orders and deliveries of documents
- search and research from and within multi-media documents
- navigation through structured electronic documents.

Services are provided by information servers with appropriate software which are connected to Internet or the Research Network for access by external users. The delivery of information clients must be effected in the same way.

National libraries must find solutions for archiving, access and long-term availability of electronic publications, to include bibliographic control and quality criteria. An expansion of the legal deposit system is urgently needed. We must invest in a suitable information infrastructure as quickly as possible. The necessary planning security is already ensured; some national libraries have already gathered valuable experience.

9. Library services

The infrastructure of communications technology is certainly an aspect of significance to our information society. In the final analysis, however, what is important is the content of networks. And this brings us to the spectrum of library services and the tasks and responsibilities of librarians in the new world of

digital information. Due to the many differences that exist among libraries, the following remarks will not apply to every type of library. I wish to focus principally upon national libraries.

The national libraries of the European Union have undertaken a concerted effort under the Telematics Programme now coming to a close - the founding of COBRA. COBRA is intended to satisfy the needs relative to the particular focus function of the national libraries within the Library Network in Europe, and it will serve as well in establishing an appropriate schedule of responsibilities within the overall cooperative undertaking. The following studies have been commissioned for these purposes:

- Study of the issues faced by national libraries in the field of deposit collections of electronic holdings

  Part 1: storage, access and service implications

  Part 2: approaches to modelling resource requirements

- Models for national bibliographic data and the provision of services in Europe

- The role of national libraries as network nodes in a distributed electronic document environment: functional models for linking different levels of electronic information.

It is up to the national libraries to find these solutions, as electronic publications stored within the network in servers remain accessible only as long as they are in frequent use, disappearing when this is not the case. Therefore, availability will have to be thought of as an investment in potential access by future generations.

Long-term availability must encompass not only the aspect of preservation but that of bibliographic control as well. It is the bibliographic citation alone that ensures the global availability of an electronic publication. At the same time, this bibliographic entry provides the basis for the protection of intellectual property. National libraries will have to develop the common regulations needed in this regard.

Within the new electronic environment, the national libraries should therefore see themselves from the standpoint of enterprise and management rather than that of ideology. Failure to do so will leave them stranded aside the information highway.

10. Training and education

One deficit remains yet to be discussed: the deficiency in the training and education of librarians themselves. Without appropriate qualifications, the tasks that present themselves in the future cannot be met. On the one hand, qualification at the national level must be ensured through the training and education of librarians. On the other, seminars and opportunities for continuing education with respect to selected applications can contribute at the level of international cooperation to the harmonisation of standards of professionalism. Libraries will remain indispensable for society only as long as they possess both a powerful information structure and a well-qualified and highly motivated staff. Experts are needed. Librarians must be capable of advising the user competently; they must be able to show how the library is integrated into the changing world of information and must take modern technology into account without overemphasising it at the expense of other factors. Like all other groups in society, librarians have a share in the process of shaping that future. While that share may not seem particularly significant at first glance, the benefits it implies may actually be quite substantial. It is texts, after all, whether printed or electronic, that serve as carriers of ideas, provide the basis for learning and teaching and, last but not least, offer the freedom to choose.

And that is a great deal, I would think, for librarians to pass along to others.

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 440-449.

The National Library of Russia Entering the Third Century of its Existence

BORIS VOLODIN
National Library of Russia, St. Petersburg

May 27, 1995 was the bicentenary of the establishment of Imperial Public Library in Saint Petersburg, now the National Library of Russia. As it grew through the years, it changed the names and the official status, but has retained the main purposes and always functioned as a major research library of Europe.

1. The Imperial Public Library

1.1. The Library of the Nation

The stories of many early national libraries are somewhat similar. They were first founded in Europe. The emergence of new or eventual consolidation in the new status of existing libraries has been know to date from the Age of Enlightenment. The state contributed to answering the demands of the nation for a radically new library type, to enhance the nation's spiritual growth. It was primarily the demand for a library providing most comprehensive collections of both printed and manuscript monuments of the nation's cultural heritage.

In Russia, this type of library was established in 1795 by the decree of Russia's major reformer, the Empress Catherine the Great. The Imperial Public Library was founded in Saint Petersburg. The Empress's idea was "to collect in the library established now all the books of Russia....".

The idea began to be actively implemented in 1808, when Alexey N. Olenin was appointed Director. He started the accumulation of the complete range of Russian printed books. In 1810, the Regulations of Library Adminstration emphasized its right of legal deposit.

Olenin also initiated works on creating the Russian national biblioraphy in the Library, permitting retrospective acquisition of Russian and Slavonic books. The work was done by Vassily S. Sopikov. He was also to become the first curator of the Library's Russian collection.

Another major task - of expanding the stocks of manuscripts and Russian early printed books in the Library, was assigned to Alecander I. Ermolaev.

In the year when Olenin led the Library, it housed only 6 Russian books. In 1841, two years before his death, there were about 30 thousand.

Later, accumulation of comprehensive collections of national printed material, along with preservation and provisions for access, evolved as the Library's main purposes and inherent functions.

1.2. The Imperial Library and Europe

In many aspects, the National Library of Russia most resembles the establishments like the Library of the British Museum and the Bibliotheque Nationale in Paris, the oldest national libraries of Europe in terms of the richest mulitpurpose research libraries. Both acted as intermediaries in connecting their countries, their nations with the world's intellectual heritage. This is exactly how Olenin interpreted the purposes of the Imperial Publi Library: "The Library is a receptacle for the literature of all ages and all nations"[1].

Nevertheless, every national library has its unique destiny, and they are all different to the extent of the differences of nations.

The first distinction of the Imperial Public Library was its title, emphasizing both the government status of the library, and the access to general public. Under the Decree of the Empress Catherine the Great the Library was to serve "the public benefit and enlightenment", i.e. provide public access. The very idea of public access conformed to the ideals of Enlightenment, even though it could not be fully implemented in a state maintaining serfdom until 1861. Nonetheless, the focus on establishing and developing a public library was significant in Russia.

The National Library of Russia is comparable to other rich and old national libraries in the richness of its collections, including valuable and unique material. A complete realization of the phenomenon, however, is only possible when account is taken of the unique space of its establishment and growth.

The Library is much younger than other major European national libraries. They became national libraries after having functioned as major collections of written monuments of their countries, Europe and the world. Collections of the libraries in London or Paris had been developed in the course of many centuries.

The Imperial Public Library was an embodiment of the European idea of a national library in a country only partially prepared for the event. It was possible in the city acting as an islet of Europe in Russia, integrating several intersecting and interacting national cultures. The Library was a home for the world cultural heritage.

1 Cit. from: Golubeva O.D. Keepers of Wisdom. M., 1988. P. 21

Among the first and probably most important impulses was acquisition of the very rich collections of the brothers Joseph Andrew and Andrew Stanislav Zaluski, starting the formation of the Library's stocks. In its turn, the library of Zaluski brothers contained unique collections accumulated from other valuable and old collections in Europe. As regards the events related to bringing the library to Saint Petersburg, they undoubtedly belong to one of the most dramatic pages in the world history of libraries, associated with the tragedy of Poland at the end of the 18th century.

By obtaining the collections of Zaluski brothers, the Library in Petersburg gained connections with European intellectual heritage. During the 19th century, the Library acquired both important private book collections and individual treasures, which later governed the professional interest in NLR collections abroad, and the nature of contacts between the Library in Saint Petersburg and libraries in other countries. The most active acquisition policies wre pursued during administration of Modest A. Korf. Among the multiple reforms he undertook to improve Library services in 1850s, particular attention should be drawn to radical changes in foreign-literature acquisition policies. He succeeded in obtaining government funding to purchase individual collections and to promote the practice of donations.

The name of Korf is also associated with the development of the unique collection "Rossica" - books of Russia in foreign languages and translations from the Russian.

In the years of Korf administration the Library in Petersburg was widely recognized as one of the best in Europe.

Since the times of Olenin, there has been an obvious tendency for considering the Library's present and future life in the context of major Europena libraries. Olenin himself correlated imple mentation of his plans with personla experience as a user fo German libraries. He also strove to give his foreign colleagues some konwledge about his own library. An effort in this direction was a paper describing the Library, published in French.[2]

During the Korf administration, contacts with foreign libraries were particularly close. The Director travelled to gain European experience. Even more active in his studies of Europena library service was Vasily Sbolshchikov, a librarian and architect. His papers on the subject may be safely considered as Russia's first studies in librarisanship. Having appreciated the achievements of his colleagues, primarily the experience of the Library of the British Museum, he could also present the successes of his Library.

As far back as mid-19th century, the Imperial Public Library was among the most active European libraries. Quoting Korf: "from a pupil, it is gradually

2 Sobolstchikoff B. Principes pour 1 'organisation et la conservation des grandes bibliotheques. Paris, 1859. 72 P.

becoming a tutor whose exampel is increasinlgy gaining followers in terms of interior decorations, exhibitions, cataloguing system..."[3]

2. The Main Library of the RSFSR

The year 1917 started a new stage in the development of the Library. The new Communist state needed another library. The ideas of accumulating all printed materials of Russia in Russian and other languages was replaced with the directive to aim at the most complete possible range of material printed withn the country. The publications, meanwhile, were strictly censored. Then there were changes in state structure - in 1922 the Union of Soviet Socialist Republics was established. In 1925 the V.I. Lenin Public Library of the Union of SSR in Moscow was made the main library of the new state (now Russian State Library). It started building up the complete range of materials from all Union republics. It was also active in managing coordination of libraries in Union Republics and providing some practical assistance.

In the meantime, the Public Library in Leningrad lived a life of its own. The Academician Nikolay Ia. Marr, Director from 1924 to 1930, contributed a great deal to the development of Library traditions, preservation of its unique collections, maintaining continuity in acquissitions. The Library could not avoid involvment in the tragic events associated with reppessions during the Stalin regime. In 1937, the Director Michislav M. Dobranitsky was executed by shooting.

Having ceased to act as the main library of the RSFSR. Then, in the late 50s, there was a tendency fo rexpanding its functions. The Library became the centre for research and methodology in libraries of Russia, rendering practical assistance to regional libraries. It was also the centre for scientific research in librarianship. Among the most significan large-scale works one should mention the resarch program "Library and Scientific Information" led by Iraida K. Kirpicheva. The Library coordinated scientific research in all branches of library science, bibliographic studies a and book history in the RSFSR. For the enhancement of the Public Library's collaboration with other libraries in Russia at large, and omarily in the 70s, the credit must certainly be given to the previous Director Leonid A. Shilov and Assistant Director for Research Olga D. Golubeva.

A new stage in the Library's development began in mid-1980s. This was related to the beginning of perestroika. Then a new Director - Vladimir N. Zaitsev, was appointed to the Library.

3 Report for 1860, SPb, 1861, p. 72.

3. The Russian National

3.1. After Perestroika

Most important changes were evident in Library's life at the turn of 1980-1990. The iron curtain vanished. The foci in social development were changing.

At the beginning of the process, the prospects for the Library, and for other libraries in the country, did not look very promising. Obviously, there were no guarantees for library funding. The previous hierarchy of the leading centre and subordinated libraries was broken, and yet the alternative seemed vague. Moreover, the experience of library-and library-system management in industrially developed countries was, while not unknown, inapplicable in Russian conditions. Librarians in Russia were to examine the system of library management in the West primarily in the context of characteristics of the processes, priorities in handling some of the problems and then turning attention to others, more complicated ones, and, of course, the specific conditions in each of the countries. This was particularly true about library automation efforts. At the same time, our colleagues in the West were to gain awareness of the true conditions of Russia, including its specific features, traditions of history and the experience, both positive an negative.

Today, just a few years later, the situation seems less opressive. However, this is not due to the fact that those acute problems have been settled at government level. The funds and material support, so important for actual library development, are still lacking. Still acute is the shortage of funds for foreign acquisitions. Domestic acquisitions have even deteriorated, and the Law of legal deposit has been adopted only recently.

However, there has been an evident shift in the positions of individual libraries. They have started independent experiments to solve their problems.

Additionally, the NLR itself, in collaboration with our colleagues in the Ministry of Culture of Russia and some libraries, has initiated and completed the development of the country's first Law of Library Service. The instrument was passed by the State Duma in 1994.

3.2. Access to Collections

In 1992, the Library was given a new name but not a new status. There have been no changes in its foci. It continues with the full range of its previous functions. But the new conditions permit to regain what was lost and, more important, to improve functioning along priority orientations.

Among the priorities is access to Library collections. This has gained a great deal of support, including automated processing towards printed cards and a whole series of efforts towards creation of an electronic catalogue.

The current projects involves creation of RusMARC format based on the UNIMARC authority file.

The Library relates the solution of automation problems to heir handling on the scale of all libraries in Russia.

The principal feature of the current situation in library automation can be formulated as follows: the libraries have recognized that the principle of local library systems holds no promise in terms of program construction. Obviously, the pevailing debates and errors in handling library problems are due to the lack of a single, unified communications format, to the existence of different search elements, unsolved multilingual problems and different users' interfaces. This means an urgent need for shifting from individual library databases and house local networks to an integrated library network and a unified national library catalogue.

In setting the problems, the NLR starts from the need for an optimal networked library architecture accounting for specific features of libraries in Russia, the need for uniform library standards, a unified format of presenting data on publications in the national languages of Russia and the world in the electronic catalogue, and the basic requirements for OPAC module.

While the actual solution of the problems is yet to be attained, one may mention the active efforts towards their setting and seeking the solutions, made by the NLR in collaboration with colleagues from other libraries, including the Russian State Library.

3.3. Preservation of Collections

The other side of the process concerns preservation of the unique stocks of the Library. The unique collections, representing not only the Russian, but rather the European and world heritage, must be safeguarded.

In this case, a series of foci ought to be addressed. The most successful have been the efforts in conservation.

The staff of the research laboratory at the Paper Conservation Service has been performing regular analysis of conditions in NLR collections, developing and implementing new restoration technologies and materials. They are developing examination/test criteria and techniques. Particularly intensive are the efforts in standartization.

The Paper Conservation Service has adequate material facilities, extensive practical experience and high-qualified personnel.

Their main concern in the next few years will be with bulk conervation, namely: paper treament in special chambers and container-preservation procedures.

The problem of preserving the Library's stocks require comprehensive treatment. This will only be possible with adequate storage space and equipment.

Regretfully, the collections are currently divided among thirteen storage areas. Some of the areas are almost inadequate for storage purposes. Put another way, the Library places its hopes for stock preservation on completion of the new Library building in Moscow Avenue. The first stage was to be put into service by the celebrations, which failed unfortunately.

Future prospects involve the stock-preservation program of a mulit-regulation storage system. In this context, the Library intends to apply most advanced technologies, to examine and adapt experience of the world's leading libraries which have settled the problems so successfully, and in particular of the Herzog-August-Bibliothek in Wolfenbüttel (Germany), with its specific humidity regulation, a three-floor safe-case for the most valuable collections, and some other solution.

3.4. The Old Task in the New Conditions

The new Russia going the way of social democratization is concerned about developing its national library according to generally accepted conceptions of a national library. Reservation of the type tht national libraries in socialist countries possess most specific characteristics, once even finding theoretical substantiations, only meant that the libraries failed in completing their obligations. This holds true about the purpose of preserving the cultural heritage of Russians and other nations of Russia. It is threfore not incidental that from the early 90s the NLR has been placing a strong emphasis on proceeding with additional acquisitions fo rthe collection of "Rossica" and providing access to the legaca of Russian materials outside Russia. It is therefore not incidental that from the early 90s the NLR has been placing a strong emphasis on proceeding with additional acquisitions for the collection of "Rossica" and providing access to the legacy of Russian materials outside Russia. In doing so, the NLR aims at regular and most comprehensive accumulation of Russian foreign publications, including retrospective acquisitions, both in original and duplicate copies.

The NLR regards bibliographic records of "Rossica" as an intergral part of national bibliography. The current project is to prepare a multipupose index to "Rossica", containing records of Russian-foreign and foreign bibliographic cources concering Russia from the 18th century to the present.

3.5. Immediate International Contacts

Radical changes have also ben evident in the opportunities for the Library to participate in international projects and maintain contacts with foreign libraries. Until quite recently, regulations were imposed both on collaboration with this or that organisation, and on choice of parterns. Thus the State Public Library was allowed to collaborate with only some of the libraries in socialist countries.

In the IFLA, the USSR war represented by the Library Department of the USSR Ministry of Culture. Very rare and most irregular was SPL's membership in delegations outside the country. Since 1992 the Library has been granted IFLA membership, actively participating in the organisation. Its representatives are working in several task goups.

Membership in an organisation like the European league of research libraries (LIBER) was out of the question at the time, the League only admitting individual libraries. The NLR has been taking some part in LIBER. Esko Häkli gave us support when we almost could not afford the membership fees, as Director of the library with which we had very close and long connections - the National Library of Finland-University Library in Helsinki.

Within the LIBER there emerged a most fascinating plan of creating a database of European books of the age of the hand-press (1450 to 1830), i.e. a common European early-print database, at present being implemented with active participation of the project's ideologist - Michael Smetherst, Director at the British Library.

In 1993 the NLR was granted association - and now - full membership in the Consortium, taking an active part in the project.

Among the radically new projects conceived in the new conditions, mention should be made of the working association "Bibliotheca Baltica" focused on the collaboration of Baltic countries.

The Library has been maintaining a fairly broad and successful collaboration program with partners invarious countries. An interesting project is the volume containing records of German material of historical value in the collections of the NLR and other Russian libraries, prepared under general supervision of Professor Bernhard Fabian as part of the project "A handbook of German collections of historical value".

Contracts and agreements of direct cooperation have been signed with libraries in Great Britain, Germany, Canada, Poland, the USA, France, Cherna Gora and Czechia.

The Library has been a regular participant in international book fairs and exhibitions. Thus in 1994 it took part in the five principal exhibitions of the international Voltaire Year, held in Paris, Geneva and Oxford.

Contracts of acquisition have been made with some foreign corporations for literature and equipment to extend the Library's facilities. We have also started collaboration with the National and University Library in Israel under the project of preserving Hebrew manuscripts through restoration and microfiche reproduction. A series of other joint projects have been completed with publishing houses in Austria, Germany, Sweden and some other countries.

4. Time Relationsships

The above discussed permits the conclusion that the Library has oriented itself in the new social situation, appreciating the advantages.

The prospects for the Library are related to further extension of the access to the Library's collections both for Russian and international users. This also means hard work to ensure adequate preservation of the Library's collections both for Russian and international users. Thsi also means hard work to ensure adequate preservation of the valuable stocks. Another goal is more intensive use of new, non-traditional media, including compact-discs, and fuller realisation of opportunities for micro-copying.

In the immediate future and in the new building, the Library intends to reject the existing system of field-divisional reading rooms for researchers in the central building, and for the general public - in the building on Fontanka embankment. Time only will show whether the decision of the new building's housing materials published since 1931 was wise. Indeed, the problem of utilizing several areas, and particularly as is the case of the NLR those located at significant distance from each other, is fairly complicated, with no ideal or immediate solutions available.

The central - old building will continue to house specialized collections - fine prints, maps and charts, rare and manuscript materials and some others.

We also anticipate an intensive development of library research. In turn, this will result in the traditional functions of major research libraries, i.e. studies and publications from the Library's unique collections.

The concept of the new building was developed in the conditions of a closed society. The new building was primarily intended to assist in solving the basic problems of practical services and ensuring the preservation of library stocks. This would permit reconstruction of the old building, most urgent in many aspects. In 1985 it was the site of a serious heating fault damaging some books and periodicals in the main stocks.

Construction works on the new building site, however, were performed in a new community. So a correlation of the functions with those of the world's major libraries assumed great importance. There was the need for rejecting the library decisions typical for the traditional library and for a maximum possible utilization of the opportunities offered by new technologies. The goal was set before a specially established unit - the technology service.

A special emphasis is being placed on Russian libraries and, subsequently, on further research asociated with implementation of projects and programs on the federal, i.e. Russian national scale. The realationship of Russian regions and the centre have been far from ideal. The NLR's mission in this context lies in contributing to the search for adequate options of collaboration of federal (central) and regional libraries in Russia, accounting for the interests of regional libraries. Intensive development of initiatives in the fields of coordination and cooperation, examination of international experience in the shere - these could

make a significant contribution to dealing with the multiple Russian problems unresolved to date.

In focusing on the future in terms of research purposes of the national library, the NLR starts from the historical experience of Russian libraries, duly accounting for the country's traditions and basing on the heritage of Russian regions. It is not at all accidental that it was the NLR that in 1994 held the All-Russian research conference on the history of Russian libraries before 1917. It started an extensive work on utilizing the experience previously not understood, and on interpreting the library history previoisly falsified.

The promise for the NLR lies in developing the traditions of the Imperial Public Library, the best legacy of the time when the Library's name was the State Public Library. This will govern the extension of its service to Russian and further growth of its contacts with libraries in Europe and the rest of the world.

The unique characteristic of the National Library of Russia is not - and cannot be - reduced to its status. There is a unique, a specific intellectual atmosphere. It originated far back in the early 19th century, when the Director Olenin employed the services of the most outstanding intellectuals of Russia at that time - scholars, authors, translators... The atmoshere has been maintained by his successors today.

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 450-452.

The LIBER Division for Collection Development

JACQUELINE DUBOIS
Bibliothèque du Musée de l'Homme, Paris

Aims and scope

The division will encourage the development of the general and special collections of European research libraries in order to ensure that those collections meet most effectively the needs of present and future users.

The division aims to:

A) improve knowledge of the holdings of European research libraries by promoting the development of collecting and retention policies, collection descriptions and profiles

B) facilitate cooperative approaches to collection building

C) monitor publishing patterns and assess their impact on European research libraries

D) advise on practical aspects of library acquisitions processes in order to help libraries achieve the best value for money

E) support the Expert Committee of the division in their work on those activities which follow the general programme of the division and on other activities which enhance the professional work of those Expert Committees

Programme of work (1995-2000)

It is intended that the work programme of the divison should be established by the division at its meeting in Leuven. The Executive Committee proposes the following areas of work, and will also welcome any suggestions from members

for additional topics. Suggestions my be submitted to the Chair of the division in writing in advance of the meeting, or may be proposed at the meeting.

General

The division will act as a forum for collaboration in collection development between libraries throughout Europe, and particularly between West and East, North and South. It will work with individual libraries, groups of libraries, library organizations and intergovernmental bodies in pursuit of its aims. As much work as possible will be carried out through correspondence, and at the annual meeting of the division (to be held at the LIBER Annual Conference). When necessary, additional seminars and workshops will be arranged.

In order to achieve its aims the division will carry out the following activities:

a) review existing collecting policy statements, collection descriptions and profiles; facilitate the creation of these where none exist; establish evaluation techniques which will provide an overview of collection strengths; plan for making collection descriptions etc. more widely available

b) review existing efforts in cooperation in collection building at local, regional, national and supra-national level; support individual libraries and groups of libraries wishing to cooperate in specific areas

c) monitor publishing output and prices in order to help libraries to estimate and to defend collection development budgets; present an overview of current arrangements for legal deposit and cataloguing in publication in Europe and any changes proposed; monitor the growth in electronic publishing and assess its impact on the collecting policies of libraries

d) assess the need for an electronic directory of European vendors; monitor developments in EDILIBE (Electronic Data Interchange for Libraries and Booksellers in Europe); provide tools to facilitate the exchange of publications between libraries when this is the most effective acquisitions method; provide training for acquisitions staff; advise on performance measures for selection and acquisitions

e) recommend the creation of Expert Committees where necessary (e.g. for maps, mansucripts).

Collection Development Executive Committee

Jacqueline Dubois, France, Chairman (tel 1 44 05 72 02; fax 1 44 05 72 05)
Ann Wade, United Kingdom, Secretary (tel 171 412 7765; fax 171 412 7577)
Trix Bakker, Netherlands (tel 70 31 40312; fax 70 31 40655)
Emilia Lamaro, Italy (tel 6 67 94938; fax 6 67 86886)

European Research Libraries Cooperation:
The LIBER Quarterly, 5 (1995), 453-455.

Book Review

Harrod's Librarians' Glossary: 9,000 terms used in information management, library science, publishing, the book trades and archive management. Eighth edition. Compiled by Ray Prytherch. Aldershot: Gower, 1995. xiii, 692 pp. ISBN 0-566-07533-4. £ 75.

Harrod's Librarians' Glossary has become an institution. The first edition was published in 1938, subsequent editions in 1959, 1971, and 1977. Since then, the editorial rhythm has been accelerated, for next editions were to appear in 1984, 1987, and 1990. Beginning with the 5th edition in 1984, Ray Prytherch has been in charge of compiling the glossary. It is not only its size that makes the new edition look totally different from the first; the 1994 edition confirms the trend set by the previous edition: it remains the definitive librarians' glossary, because its scope has been extensively widened to reflect the diversity of aspects inherent in contemporary librarianship. The subtitle lists but some of them, most notably, perhaps, information as well as archive management. In order not make the subtitle look too baroque, some subject areas could not explicitly be mentioned there, for instance preservation and conservation, which have become major concerns to the profession in recent years. Both terms, however, are extensively covered in this glossary.

What is a "Glossary"? Let's turn to *Harrod's* for an answer: "1. An alphabetical list of abstruse, obsolete, unusual, technical, dialectical or other, terms concerned with a subject field, together with definitions. 2. A collection of equivalent synonyms in more than one language." (p. 280). -- A "Review Copy", or "Press Copy", on the other hand, is defined as: "A copy of a book sent by the publisher to a newspaper or magazine for the favour of a review." (p. 554) We are convinced that the present glossary exclusively deals with terms of a technical kind (rather than any of the others); and it is easy to grant the favour of a review if the book is as good as this one.

The book is solidly bound (which must be mentioned these days even if heavily used and heavily priced reference works are concerned), the layout is clear and the typopgraphy is easily readable. The texts of entries are not hampered by numerous "qq.v.", being the plural of "q.v.", an "Abbreviation for *quod vide* (Lat. 'which see')" (p. 529): references of this kind are elegantly avoided simply by providing a capital letter for words which have entries of their own in this glossary. If there were anything like a "Plug and Play" for glossaries,

Harrod's would come very close to it. "Plug and Play", by the way, basically means "that a PC can be unpacked, plugged into the power supply and used immediately." (p. 502)

Although some 9,000 terms are listed in this glossary, which makes it possibly the largest of its kind, it would have been easy to include many more items. One of the most difficult tasks in compiling such a book certainly is to decide which terms can be omitted. It is, perhaps, a compilers's nightmare to be charged for omitting a certain term, and the only way to tackle these charges is to make it quite plain, as Mr. Prytherch does, what the emphasis is, which in this case is decidely English. Omissions of terms may be due to various reasons: there is so much specialist terminology, changing very rapidly; there is a mushrooming of abbreviations and acronyms; there are many terms which are used only in particular countries; and, frankly, there is an awful lot of jargon: if you desparately want to know, what on earth is a "Cybrarian" - *Harrod's* won't tell you and you'll have to look elsewhere. However, you may find it helpful to be told that the term "Cyberspace" is credited to the novelist William Gibson and "can be thought of as the ether-world (as opposed to the nether-world) occupied by the messages, files and data that circulate around the Internet."

To more serious matters. As for Internet itself, there is a one-page entry providing concise information on its history as well as its present size and structure, rounded up by some essential titles for further reading. Of course, the reader is guided to numerous terms related to "Internet".

It seems that there is abundant information on bibliophile and printing terms. Things that might be missed are a q.v. from "Wiegendruck" to "Incunabula" or, to be more important to an English minded glossary, an entry for "Copy-text". Anyone, however, interested in short-title cataloguing in the English literature, will be astonished to come across "Pollard and Regrove" and miss an entry on Wing's sequel to Pollard and Redgrave's catalogue.

As said before, the glossary also includes entries on computer technology for libraries as well as on bibliographic networks. It is quite understandable that entries on networks are kept to very short notices, particularly in cases of continental networks (such as PICA or REBUS/SIBIL). The description of North American networks is more comprehensive. As for storage and retrieval technology, as for computing technology in general, the glossary's English scope does not disturb at all. It is good to see that CD-ROM and other related media are duely mentioned (including "High Sierra").

Most useful is the inclusion of terms relating to British and North American institutions and associations in various fields, from librarianship to higher education. As long as the focus is Anglo-American, nothing can go wrong; however, some mistakes and inaccuracies turn up if German matters are concerned: a "Habilitationsschrift" does not only embody original research, but is the precondition to receive the *venia legendi*, the authority to teach and examine

at a Austrian, German or Swiss university; the "Deutscher Bibliotheksverband" is *not* the association of librarians (of which there are at least four major ones in Germany) but an association of libraries and library associations; the "International Society for Knowledge Organization (ISKO)", finally, should not be mentioned without the much more traditional and more comprehensive "Gesellschaft für Klassifikation", from which it split in 1989. Having said all that about German entries, I should hasten to add that the value of the glosaary had not been reduced if those entries had not been included at all. Future editions of the glossary should, perhaps, rely on the assistance of advisors familiar with the situation in different countries.

It is good to see that the glossary reflects the managerial implications of modern librarianship. Apart from short entries like "Job Sharing" or "Job Specification", we find half a page containing entries on "Staff appraisal", "Staff development manual" and the like. I wonder, however, whether it is really necessary to find this page on staff entries concluded by "Staff room", which is defined, would you believe, as: "A room reserved for the use of the staff for purposes of rest, refreshment and recreation." (p. 607).

Yet it seems unfair to point out the occasional printing mistake and some odd entries. We should not, therefore, concentrate on a handful of mistakes but keep in mind that about 9,000 terms are correct and contain a wealth of information. The new edition of *Harrod's Glossary* is a blessing. No disguise.

HEINER SCHNELLING (GIESSEN)

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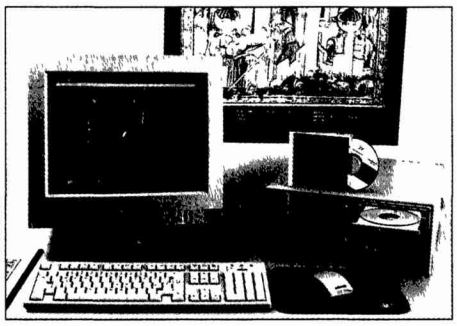

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LIBER Architecture Group

Announcement and Call for papers

The LIBER Architecture Group will hold a seminar on the theme of
The Postmodern Library: between Functionality and Aesthetics
from 22 - 26 January 1996 in Paris.

The seminar will be held at
Grande Galerie de l'Evolution
Muséum National d'Histoire naturelle
36 rue Geoffroy Saint-Hilaire
F-75005 Paris

Draft Programme

Monday, 22 January

13.00 - 14.30	General reception of the participants Delivery of papers
14.30 - 15.00	Reception Words of welcome: - President of LIBER - French ministry of National Education Opening session Chairman: Mr Elmar Mittler, vice president of LIBER
The developments in library architecture during the last twenty years	
15.00 - 16.30	Mr Eckhard Gerber, architect (Germany) Mr Michel Melot, librarian, Président du Conseil supérieur des bibliothèques (France)
16.30 - 17.00	Break
17.00 - 18.00	The "After-Atkinson-Report" Library: Mr Antony Quinsee, librarian (Great Britain)

Tuesday, 23 January

Natural lighting versus artificial lighting

09.00 - 10.15	The neu building of the university library of Paris-VIII-Saint Denis: Pierre Riboulet, architect (France)
10.15 - 11.00	The Berne Law Library: Mr Bernard Cormier, architect, and Mr Vonplon, Head librarian (Switzerland)
11.00 - 11.30	Break
11.30 - 12.30	Artificial lighting in public buildings - a marketing instrument? Mr Gilbert Quéré, ingénieur à la Compagnie européenne Philips Eclairage (France)
12.30 - 14.30	Lunch and individual transfer to Pasteur Institute
14.30 - 17.30	The Library of the Pasteur Institute: - Reception by Corinne Verry, Head Librarian - Visit of the building in groups - Discussion with the architect Robert Chapelier

Wednesday, 24 January

Access of handicapped people to libraries

09.00 - 10.00	The accessibility of handicapped persons in the Cité des Sciences et de l'Industrie including the Media Center and in the Bibliothèque Nationale de France: Louis-Pierre Grosbois, architect (France)
10.00 - 10.30	Break
10.30 - 12.30	Overview on activities in European countries, followed by discussion. **- call for 4 or 5 papers -**
12.30 - 14.30	Lunch and individual transfer to the Bibliothèque Nationale de France
14.30 - 18.00	The Bibliothèque Nationale de France - Reception by Philippe Belaval, General Director - Session with Dominique Perrault, architect:

	presentation of the whole project and technical details of the building: glazing, security, automatic transport of documents. Technological studies for the Bibliothèque Nationale de France, results and application for further projects Guided tours

Thursday, 25 January

The transformation and refurnishing of library buildings

09.00 - 10.30	The Centre Georges Pompidou and the Bibliothèque Publique d'Information: planned transformations Renzo Piano, architect, Martine Blanc-Montmayeur, Head librarian
10.30 - 11.00	Break
11.00 - 11.45	The Hartley Library (University of Southampton). The architect and the librarian.
11.45 - 12.30	The Theology faculty library and the Economics faculty library in Leuven (Belgium): M. Paul van Aerschot, Architect.
12.30 - 14.30	Lunch

New library buildings in Europe and their technical installations

14.30 - 16.00	The Royal Library in Copenhagen: Karl Krarup and Steen Bille Larsen, librarians, and the architect
16.00 - 16.30	Break
16.30 - 17.15	The new library of the Free University of Brussels (Belgium): Jean-Pierre Devroey, Head Librarian, and the architect
17.15 - 18.00	New library buildings in Estonia, spec. The National library of Estonia in Tallinn: Kalju Tammaru, Head librarian.
20.00	Buffet supper

Friday, 26 January

New library buildings in Europe

09.00 - 09.45	An overview on new library buildings in Switzerland: Alois Schacher, Head librarian of the main university in Luzern (Switzerland)
09.45 - 10.30	Planning and developing of library buildings in Hungary. Ms Viragos (librarian) Debrecen, Hungary
10.30 - 11.00	Break
11.00 - 12.00	To be appointed
12.00 - 13.00	Conclusions and prospects Elmar Mittler
13.00	End of seminar

Friday afternoon: Optional programme
Visit of several libraries in Paris
(on previous booking):

- Médiathèque de la Cité des Sciences et de I'Industrie (modern library)
- Bibliothèque Publique d 'Information (Centre Georges Pompidou) (modern library)
- Bibliothèque Mazarine (historic library)
- Bibliothèque Sainte Geneviève (historic library)
- Bibliothèque du Muséum national d'histoire naturelle (very important special collections)

Participation fee: 700 FF
European participants (except those from France) are asked to make a bank transfer in French Francs from their bank to:

Société Générale Paris, Agence Centrale (N° 03010)
Account number: 00037266208

Please note "Sans frais pour le bénéficiaire" to avoid that banks charge supplementary commissions which have to be deducted from the fee of 700 French Francs.

Les participants français devront régler leurs droits d'inscriptions uniquement par chèque bancaire ou postal, établi à l'ordre de "CORI-LIBER".

Reservation for the seminar will only be accepted if accompanied by the registration fee.
Inscription deadline: Saturday, 9 December 1995.
Maximum of participants: 110

Colleagues who want to report on new library buildings or projects are asked to get in touch with

Marie-Françoise Bisbrouck
Ministère de l'Education nationale
Secrétariat d'Etat à l'Enseignement supérieur
Direction de l'Information scientifique et technique et des Bibliothèques
Sous-direction des Bibliothèques
1, rue d'Ulm
F-75005 Paris, France
Tel: 33 1 49 55 23 81
Fax: 33 1 49 55 25 78

Speaking languages during the seminar: English, French, German (Simultaneous translation)