

15 September 2000

***International Summer School on the Digital Library 2000***

**Week 2: Electronic publishing : libraries as buyers, facilitators or producers  
7 - 11 August 2000**

**TRAINING REPORT**

**Background**

The *International Summer School on the Digital Library* took place for the fifth time, organized by Ticer (Tilburg Innovation Centre for Electronic Resources) at Tilburg University in the Netherlands.<sup>1</sup>

The general objective of the summer school is to prepare librarians for setting up their own digital libraries. This specific course aimed to support libraries in the current transitional phase towards the digital age and to identify new roles and opportunities.

The very structured and meticulously thought out programme consisted of lectures and discussions tackling the following topics: electronic publishing and the role of the library, publishers and intermediaries, publishing alternatives, costing and pricing, copyright, licensing and negotiating, the experience of consortia, electronic scholarly communication, technological trends (see annex for details of the programmes).

The 17 lecturers who presented papers at the Summer School came from the UK, USA, the Netherlands and Belgium. They had various functions such as university professors, librarians, representatives of library consortia and initiatives (JISC, NESLI, OhioLink), commercial publishers and aggregators (Elsevier Science, Wiley, Swets Blackwell), alternative publishers (SPARC, University of Tilburg), legal advisors and computer scientists.

The 29 participants from 13 different countries world-wide came mainly from libraries of different type, size and sector<sup>2</sup>, but also from publishers and database providers. The wide range of backgrounds and environments of the international audience enriched the course considerably.

The course was not confined to the lecture and workshop (i.e. practical) sessions. Participants and lectures had their meals together and shared accommodation which provided more opportunity for discussions and for sharing information (starting already at breakfast!). Thus the input was extremely intense. A lot of the lecturers stayed not only for their presentation, but took actively part in the course for one or several days or even the whole week. This had a certain think tank effect.

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<sup>1</sup> The web site of the second week of the Summer School including information on participants, lecturers, evaluation, etc. can be found at <http://cwis.kub.nl/~ticer/summer00/week2/index.htm>  
For more info on Ticer, please see <http://cwis.kub.nl/~ticer/>

<sup>2</sup> I will use the term "libraries" in this text to refer not only to libraries strictly speaking, but also to documentation and resource centres, including decentralized units such as the Cultural Policies Research and Development Unit.

## **Web-publishing**

The course focused on electronic publishing on the Web, with particular emphasis on e-journals, as that is the area where actually most of the innovative action takes place which is of interest to libraries. Developments regarding e-books have been mentioned in passing, such as e-only-books (e.g. Stephen King's latest novel which is only available electronically and distributed via the Web), e-book providers to libraries such as netLibrary, the technological progress of reading devices, etc.

Web-publishing has become more and more popular for its speed, its global and almost immediate accessibility, its direct and interactive exchange facilities between authors and readers, its low cost, its enhanced usability (navigation, searchability), its flexibility for processing and so on. Although some areas are still reluctant to use this innovation, they will eventually have to give up their resistance, as it will become mainstream practice.

In this context, *The innovator's dilemma : when new technologies cause great firms to fail* by Clayton M. Christensen was quoted. Christensen looks at the impact of technological change on great firms. He makes a distinction between sustaining technologies - changes that the customer can readily adopt - and disruptive technologies, which, at least in the short term, many customers perceive as being more trouble than they're worth. According to Christensen, well-managed companies go out of business because they listen to their customers and give them what they want, instead of seeing the long-term potential of the new technology. So, we'd better be prepared for the "disruptive" technology of electronic networked publishing than be taken by surprise.

Of course, there are also drawbacks to web-publishing: the unsecured long-term preservation, risk of piracy, expensive management of authorized access and disclosure of personal data, information overload, de-intermediation, etc. The role of the Summer School is precisely to address these problems.

## **Digital library**

A digital library is a collection of electronic networked resources developed and maintained in order to meet the information needs for a certain user community. In a digital library, all information objects are available directly or indirectly via electronic means which makes enhanced retrieval functionalities possible. Mostly, it is a global concept, as in the continuous information space of the Web access can be provided via a seamless interconnection to extensive information sources beyond the local library. Thus, digital libraries will be more subject or domain based than traditional libraries. Both storage and access are fully electronic, in a way that users can access all they need from their desktop, also from home.

However, during the transitional period, a combination of paper-based and electronic collection, the so-called hybrid library, will for some time still exist.

## **The information chain and its actors**

Electronic publishing has brought fundamental changes to the information and communication chain. The different actors in the chain - authors, publishers, aggregators, libraries, readers - gain several opportunities, but there are also threats.

Authors want to be read as soon as possible and readers want to read new information when it is new. Authors and readers who, especially in research, share a common interest, can bypass the other actors. The growth of e-print servers worldwide are an evidence of that. E-print servers are a self-archiving solution of certain scientific communities which provide free access to the full text of the papers within a specific discipline.

Especially the stakeholders who have an intermediary role - publishers, aggregators, libraries - can become superfluous if they stick to their traditional roles and if they do not perform in the Internet environment. They need to offer an added value in order to survive.

### **Changing role of the libraries**

Libraries are challenged by electronic networked resources regarding several issues: collection and processing, management of access and storage, and long-term preservation. Different libraries will assume different roles in this world of electronic networked resources, e.g. national libraries need to include electronic publications in the legal deposit. The course paid special attention to academic and research libraries, again because that is the field where innovative action is currently taking place.<sup>3</sup>

However, it was not difficult to extrapolate suitable strategies for my specific case as information manager within the Council. Similar to academic and research libraries, but contrary to national or public libraries, the central and decentralized documentary units in the Council inherit a specific purpose from the larger institution within which they were created: our mission is always derived from the mission of the Council or the relevant Department itself. The purpose of a digital library depends on the role it shall have within the parent institution.

In a digital or hybrid library, librarians have the role to integrate relevant electronic resources into their local systems and services, in order to facilitate easy access and allow users to search through one interface. The online library catalogue is particularly suitable for that. There should be a seamless linking from the reference database to the full text. On a larger and automated scale, this type of web application requires programming skills which will become necessary for qualified information professionals.

Selection, structuring information and subject classification are key issues for web librarians, as they were for the traditional librarian in the paper environment. In the digital environment, librarians will need good negotiating skills for concluding licence contracts regarding access to electronic resources. Training is also a necessary task so that end-users can fully exploit the resources, as well as their access and linking functionalities.

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<sup>3</sup> The library of Tilburg University is a showcase of a digital library, one of the first within Europe. See Hans Geleijnse, Hans Roes (1996): "Library innovation : experiences at Tilburg University": <http://cwis.kub.nl/~dbi/users/roes/articles/enclis.htm>

It was felt, that librarians will still be around for some time, because they are specifically skilled to bring some order to the chaotic information overload of electronic networked resources. However, it was also remarked with some concern that librarians were neither initiating, nor involved in any of the innovative e-publishing activities which make electronic documents accessible to the public domain.

### **Libraries intervening at production level**

Indeed, librarians should not only take care of the consumption aspect at user level, but intervene elsewhere in the information chain. A lot has to be done at production and dissemination level by making electronically available publications and documents of their own institution. This is especially important for grey literature which cannot be easily retrieved.<sup>4</sup> Furthermore, librarians are not only responsible for the access to their institutional documents, but also for their long-term storage.

Both objectives can be achieved by establishing an electronic archive: all electronic files are put in a systematic way on a document server or in a database together with some metadata. If public access to these documents is foreseen, interoperability standards should be taken into account to allow for accessibility within integrated search systems.

For the production and storage aspect in an academic or research environment, librarians have to work together with the authors who produce research papers. Analogously, in the case of the Council, the library should collaborate closely with the authoring departments.

#### **The need for an electronic archive at the Council**

Before we can even think of making (selected) documents and publications accessible to the public domain via the web site of the Council, we need to have a systematic electronic access in-house. Prerequisite is the collection management of electronic files via an electronic archives or repository.

In the Council, every department deals on its own with its electronic files of documents and publications, mostly in an arbitrary way. Indeed, there is no files management at all: no policy for archiving or access, no consistent classification or naming scheme, no version control, no migration control. Some files survive in a more or less organized way in the public folders (Outlook) or on the secretaries' PCs, often several document versions side by side. Not all files have survived after the migration to Windows. If a text of a pre-1997 Council document or publication is needed for reproduction, the necessary time-consuming scanning and retyping is a frequent error source.

For texts which are published commercially, the electronic file is transferred to the Publishing Department which produces the final version and usually passes it on to an external printer. We therefore have recently suggested to include in our

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<sup>4</sup> "Grey literature" is a term used to designate material that usually is available through specialized channels and may not enter normal channels of systems of publication, distribution, bibliographical control or acquisition by booksellers or subscription agents. Usually, these are publications without ISBN.

publication contracts the delivery of a PDF file back to the responsible Department, in order to have an electronic version which is the exact image of the printed one for publishing it on the Web.

Although I have depicted here the situation as I know it from DG IV, the solution cannot be found in our Directorate alone. Responsibility for documents and publications will always lie with the "Service d'auteur", but we need a central electronic archive (database or document server) and conventions regarding formats, versions, classification and metadata. Idiosyncratic solutions will hamper an objective which is of interest to the whole organization: to collect the electronic files of all Council documents and publications in a consistent and efficient way that assures registration, version control, storage and preservation, accessibility and retrieval, as well as further usage. Digitization of older material will be necessary.

The paper documents and publications of the Council are registered and archived at the Central Library, so should their electronic counterparts, be they word documents, PDF files or any other relevant format. As reference data is collected in the catalogue of the Central Library anyway, this is logically the best place in the house for the electronic archives. Furthermore, the new online library catalogue can offer an ideal interface to access documents and publications in full text.

### **Electronic files on the Web**

After having organized availability and accessibility of the Council's electronic resources internally, we can tackle the second step of making some of them - A4 documents of public circulation and commercial publications after the prescribed sell-period of 6 months - available to the public domain via the Web.

Ideally, all electronic files should be stored only in one place (back-up copies apart), but it might be necessary due to firewall security measures to duplicate on the Web server those files which are intended for open access.

However, the approach of dispersing these files all over the various sites of the Council according to their authoring department makes their retrieval very haphazard - actually as haphazard as the retrieval of subject specific information which can be found at various web sites and pages of the Council.<sup>5</sup>

For making at least the retrieval of files less haphazard, one should offer the visitor to our web site a true "one-stop shop": a repository would contain all downloadable documents and publications which can be searched and accessed via one single interface. UNESCO is already doing this via its web-based UNESDOC service.<sup>6</sup>

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<sup>5</sup> This problem of access to specific subjects areas which have been treated in various activities of various organs and departments of the Council has already been identified in a note of the DG IV Director General to the Council's web site co-ordinator (14 April 2000).

<sup>6</sup> See under <http://unesdoc.unesco.org/ulis/> for further information. UNESDOC does not only contain downloadable documents, but also some downloadable publications whose printed version is sold via UNESCO Publishing.

On a much smaller scale, this has also been achieved at the Council where the *Treaty Office* (DG I) makes all conventions publicly available in electronic form via a specific web site.<sup>7</sup> A further example at the Council is OFFICE, the official Gazette database, which gives open access to official documents emanating from the Committee of Ministers, Parliamentary Assembly, Congress of Local and Regional Authorities of Europe and the European Court of Human Rights.<sup>8</sup> There is also the project of CEDOC, the Council of Europe working documents database. However, all these separate systems have one feature in common: they are limited to certain types of documents and do not allow an integrated access. This approach is user-unfriendly, as the interested public would need to search in all systems separately – and would need to know that they exist.

Again, it is the online library catalogue which can provide such an interface to access and search a full text repository according to criteria such as subject, author, title, document type, etc. In addition, links from the web pages which present specific activities to the relevant downloadable files should guide those users who did not come in via the documents repository interface.

## **Publishers**

Publishers are facing increased competition, as web-publishing can be done by nearly everybody nowadays. The whole sector is currently going through a large number of changes, and many new business models have been proposed.

The role of the publishers consists in validation, registration in the sense of fixing ownership and priority, and dissemination. Validation assures the quality of the intellectual content which is done in scholarly communication via the peer review process. The validation procedure which has been set up for the Series of *Policy Notes* in the Cultural Policies Research and Development Unit is a comparable mechanism of quality control.

In the digital environment, publishers provide further services through on-line access to the full text, speed, built-in multimedia applications, awareness services, search engine and navigation tools, subject classification and so on. They offer added value with interfaces to access multiple journals from various publishers, the possibility to link and manage with locally held data, linking services such as the reference linking via CrossRef which allows users to see links from cited references in ScienceDirect articles to the full text of the cited articles on other participating publisher's web sites - and to access them if they have paid for it. Some publishers propose electronic submission systems in which also the refereeing procedure is fully electronic, and even (short-term) archiving solutions.

Alternative sales models propose, for example, access at article level instead of journal level access, or even fully customized packages.

"Being quotable" is one of the requirements addressed to all non-fiction e-publishing. If there is also a printed version, there should be a direct correlation between print and electronic version which is usually achieved via PS or PDF files.

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<sup>7</sup> See <http://conventions.coe.int/>

<sup>8</sup> See <http://office.pride-coe.net/>

## **Aggregators**

Aggregators such as subscription agents are a further player in the information chain, dealing with content packaging. Subscription management for a library, the traditional role of subscription agents, has changed in the electronic environment to be more a handling of access licenses. The added value which can be provided by these agents - awareness services, provision of a single interface to access aggregated content with search and navigation tools, new and flexible ways of pricing and selling electronic resources - is overlapping to a certain degree with the services offered by the publishers.

Aggregators can offer value added services specifically as mediators between a consortium and publishers. An example is the National Electronic Site License Initiative (NESLI) offering an e-journal service to over 180 UK universities, who has appointed Swets Blackwell as managing agent to negotiate a deal with the publishers, to inform and liaise with all stakeholders and to handle licenses for a large amount of journals for the participating libraries.

## **Journals costs**

Journal prices in all subject areas have been spiralling out of control, and as collection budgets are not increasing, libraries have to cancel journal titles every year. In order to compensate for that, publishers increase prices again.<sup>9</sup>

Due to their low production cost, e-journals could be a solution to this journals crisis. However, publishers only rarely sell the online version separately from the printed one, and not all libraries are already willing to give up the print version. It was felt that only a very high commitment to e-journals on both sides can overcome this impasse. A critical mass of journals has to be available in electronic format, and the libraries have to train and assist their users in discovering the advantages and added value of e-journals in order to obtain their acceptance.

## **Crisis of scholarly communication**

Even a lot of society journals, i.e. journals of scholarly or professional associations with a non-profit orientation, are in the hands of commercial publishers, because societies have outsourced their publishing activities at a certain moment. In fact, commercial publishers increasingly try to take over society journals and competing publishers. What is at stake for commercial publishers is web channel dominance which will be distributed between a few conglomerates. Control of a critical mass of content in the field will allow the owner to dictate terms.

The vicious circle of increasing journal costs is especially hard for academic and research libraries, as their institutions pay twice - often with taxpayers' money: first, the scholar or researcher to do research, then the journal subscription to get hold of the research output. The latter is urgently needed by the researchers. The increase in journal costs and the increasing commercialization of scholarly publishing have decreased scholars' access to essential research resources. Therefore, universities want to take back some control of scholarly information.

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<sup>9</sup> For further information on the journals crisis see for example: *Newsletter on Serials Pricing Issues*, electronically available at <http://www.lib.unc.edu/prices/>

An analogous loss of control can be experienced at the Council, although to a much lesser extent, when an expert has been paid for a report, but the final paper is eventually published commercially elsewhere.<sup>10</sup>

Despite the ever increasing tendency of researchers to publish for free on the Web - in e-print archives, on university document servers, on individual home pages, etc. - the commercial publication of articles is still felt necessary, but not for the dissemination (the enhancement of readership is better achieved via free publishing on the Web), but for appointment, promotion and resources which an author obtains in the present academic and research system for publishing, and more so for publishing in certain journals, i.e. journals with a high impact factor.<sup>11</sup> The higher the impact factor of the journal, the better the effect on the career of the researcher and future research possibilities. The higher the impact factor of a journal, the higher its price.

It was felt necessary to modify the tenure and promotion system and to effectively decouple evaluation of individual research from such a bibliometrical factor. Some, however, go so far to blame peer review for its role in the prevailing impact factor system, as it creates a hierarchy among journals based on the rigor of their review which corresponds directly to the journals ranking by impact factor. Peer review is then understood only as a relative quality filter, as a threshold for publishing in a specific journal.

### **Electronic publishing alternatives**

Different initiatives and models in the area of alternative electronic publishing have been developed to make research results accessible again. They differ in their approaches to peer-review and open access to information, but they have in common that they present viable alternatives to commercial publishing.

One point of departure is to bring scholarly publishing from commercial publishers back to the non-profit oriented societies. To this end, SPARC was set up - Scholarly Publishing & Academic Resources Coalition - a project that encourages collaboration among scientists/societies and academic institutions. SPARC supports the establishment of new, lower-cost scholarly publications as competitive alternatives to specific scientific, technical or medical journals (e.g. *Organic Letters* of the American Chemical Society) and backs new ventures demonstrating innovative business

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<sup>10</sup> The following example can illustrate this access problem:

At the Seminar on European Cultural Co-operation which took place in Strasbourg, 4-6 March 1993, Mark Schuster prepared the background paper "Deconstructing a tower of Babel : privatisation, decentralisation, devolution and other ideas in good currency in cultural policy." (Document DECS-Cult/CP(93)2rev). This was published with a slightly different title in *Voluntas* 8(3):261-282, a journal which is neither held by the Cultural Policies Research and Development Unit, nor by the Central Library. We would like to access this version of the article which surely, also due to the peer review process, has been improved and enlarged.

<sup>11</sup> The international assessment of journal quality is based on the impact factor, developed by the Institute of Scientific Information and based on the Science Citation Index database. The impact factor is a measure of frequency of citation which is used for various purposes such as journal ranking and evaluation of research, although there are some flaws in the system.

models, non-profit portals to aggregated content. SPARC members pay a member due and make a purchase commitment for SPARC supported journals.

One of the new business approaches endorsed by SPARC is the article charge model in which readers can access the journal free of charge whereas authors pay for each article they publish in that journal – who actually pays is the author's institution who uses some of the journals subscription budget for this expenditure. For example, the *New Journal of Physics*, a peer-reviewed, all-electronic journal which publishes original research in all areas of physics, is funded by article charges by authors and is freely available to readers world-wide.

With special grants, a peer-reviewed journal can even be free for authors and for readers alike. That is the case of the *Electronic Journal of Comparative Law* from Tilburg University.

A lot of the freely accessible journals do not rely on peer review, but on editor's judgement, if at all. Nevertheless, in certain disciplines, authors are choosing to publish their research in an online magazine, rather than in conventional journals. They clearly prefer fast turnaround, open access, and a liberal copyright policy to the conventional process of journal publishing.

### **E-print servers**

A totally different approach is the e-print distribution model which implies only author and reader, but no publisher at all. They began as informal vehicles for the dissemination of preliminary results and non-peer reviewed "grey literature" – the so called pre-print servers – but became an important medium for sharing research results which operate independently from journal publication and can be freely accessed via the Internet.

E-print systems are self-archiving solutions in which the author (or his institution – in particular the library) submits his paper to a server either as metadata with the full text (centralized model), or as metadata and a link to the full text which is stored locally at institutional level (distributed model). Both models have in common an automated submission mechanism, a long-term storage system, and an open machine interface that enables third parties both to collect data from the archive and to create services that support the retrieval, presentation and analysis of data in the archive.

An example for the centralized model is the very first e-print server, arXiv at the Los Alamos National Laboratory<sup>12</sup>. Its original mission to serve the high-energy physics community has grown to encompass physics, mathematics and computer science. Authors submit their papers through an automated uploading procedure together with the metadata. PDF files are created on the fly.

An example for the distributed model is RePEc (Research Papers in Economics)<sup>13</sup>, a decentralized archival scheme where contributing institutions place metadata about their papers, documents and software components via a set of standardized

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<sup>12</sup> See under <http://www.arXiv.org>

<sup>13</sup> See under <http://www.repec.org/>

templates on a public access computer system. The electronic files, if available, stay in local databases and servers and are not transmitted elsewhere.

The acceptance of e-print servers varies from discipline to discipline. Some look at this model of authors' self-publishing with deep reservations owing to the lack of peer review. However, journal publishing and e-print archives are not mutually exclusive, and these self-publishing initiatives do not intend to replace journal publishing, but to offer an alternative dissemination channel. They are based on the idea of splitting dissemination of research results and quality certification, so that new ideas are neither suppressed, nor published with an undue delay, but are immediately available for free to everybody who is interested. It was proposed to add peer review as a special layer on top of the electronic archives in the form of an additional (paying) service; e-print servers are specifically designed to be open for further usage, enhancement, added-value in end-user services.

### **Integrated access**

One of the technological challenges in electronic publishing is the integrated access to a wide range of distributed electronic information in a seamless way. This requires interoperability between the different systems. Interoperability concerns diverse issues such as metadata formats, document models, underlying architecture, usability for integration into local systems, for value-added services, accessibility in a cross domain context, etc.

The question of interoperability between e-print systems is being tackled by the Open Archives initiative (OAI), a forum which promotes author self-archiving solutions. Their work has been advanced considerably through the Santa Fe Convention which presents a technical and organizational framework designed to facilitate the discovery of content stored in e-print archives.<sup>14</sup>

Whereas e-print servers as a repository of research articles are relevant to scholarly communication, we are dealing in culture more with specialized portals and gateways where the distributed content consists of a variety of materials. An example is the Canadian Heritage Information Network (CHIN) which offers a portal to museums, galleries, and heritage information in Canada and around the world.<sup>15</sup>

The mechanism of access to distributed resources for portals and gateways is similar to the one in e-print systems: a common metadata scheme is used. For each of their resources, contributors create a metadata record and embed it in the resource itself. The distributed networked information thus being indexed, the portal regularly harvests the metadata information from participating web sites in order to update its metadata repository and to offer all users one central access point for all information.

Metadata schemes are usually domain or sector specific standards, there is no unique format. In the future, harvesters will hopefully be able to interpret and collect metadata of multiple formats.

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<sup>14</sup> The Convention was released on February 15th 2000. For further details please see under [http://www.openarchives.org/sfc/sfc\\_entry.htm](http://www.openarchives.org/sfc/sfc_entry.htm)

<sup>15</sup> See under <http://www.chin.gc.ca/>

At the DG IV we should monitor developments of specialized portals in our subject areas to see where we can hook on our available resources - web sites, electronic files, and even whole online systems like the web-based *Compendium of Cultural Policies in Europe*. We need to ensure that they are well represented and made accessible via suitable gateways - that will add to the visibility of our activities among our target audiences.

### **Technological trends in electronic publishing : the SFX linking service**

Navigation between distributed Internet resources requires linking. The starting point for linking services between information entities in online library catalogues, citations appearing in research literature, full-text repositories, e-print archives, abstracting, indexing and citation databases, and other services and resources is the bibliographic reference.

Typically, links between entities which are available within a controlled environment are computed in advance and held in a linking database (static linking). Given the requirement to control the information collection for interlinking entities, these static linking solutions are restricted to the sphere of influence of the information provider (e.g. CrossRef by Elsevier). Using static linking, a fully interlinked information environment would require either an information monopoly or extensive partnerships.

Furthermore, most of the current linking approaches are not context sensitive, that means they can not be adapted to the local environment of the consuming institution. In such a closed linking framework, the targets of links are dictated, basically leading to the information provider's collection. However, linking should be influenced by the institution where the link will be actually used, either to present alternative or additional link targets within its accessible environment (local or other databases), or to suppress links to commercial contents which are available locally.

Recently, a practical linking solution has been developed which is both dynamic and context-sensitive: the SFX system interlinks available information entities in a hybrid library environment without requiring an *a priori* computation of links. Such a linking framework provides extended end-user services for the library.<sup>16</sup>

At the hub of this system is the SFX base which exploits know-how about the actual hybrid library environment without any functional verification of the links. The better the SFX base is adapted to the local collection specifications (holdings, subscription to e-journals, access to databases, use of web-based services, etc.), the more the risk of dead links can be reduced. Such a fine-tuning of the SFX base is very important for the quality of the extended services.

However, information providers who want to allow for such a context-sensitive linking need to make their resources SFX aware. In fact, in order to be able to link into an information provider's system for integration into local environments, the provider's system must provide a link-to-service that can be addressed using a link-to-syntax. This is accomplished by installing a mechanism that enables servers to intervene dynamically in the selection of a link's target. For this, the OpenURL has been

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<sup>16</sup> SFX is currently in beta testing. More information at <http://www.sfxit.com/>

developed. The OpenURL is transferred together with the metadata for each service object which is requested in a search. SFX, or other software, can hook onto this OpenURL and use it as input for providing context-sensitive services for the transferred metadata by targeting the links within a local environment.

The software for the SFX server responsible for the context-sensitive linking framework and the management of a library's interlinked collection, is the property of Ex Libris (provider of the Aleph library system), whereas the OpenURL is a public available mechanism. In fact, the OpenURL has given rise to quite some interest in the information industry which has recognized its potential for integrating their information resources into their customers' overall information services. The US National Information Standards Organization (NISO) is currently considering adopting OpenURL as a standard.

It could be quite useful to monitor these developments. If the OpenURL becomes a standard, this mechanism should be included in our web-based *Compendium of Cultural Policies in Europe* to improve accessibility to this information service by allowing for integration into local environments via an SFX base. Of course this would only be suitable for institutions interested in this subject area. If, for example, a user searches via the local interface for cultural policy in Russia, the relevant country profile of the *Compendium* should be among the research results.

The SFX system was presented to us by its inventor, Herbert Van de Sompel. He gave a breathtaking demonstration of the integrated access to distributed information, from metadata as available in an institutions' online library catalogue not only to the full text, but also to logically related secondary information sources such as reviews, abstracting and indexing services, citation databases, reference services (e.g. *Who is Who*, *Books in Print*), web-based services such as Internet Bookshops and so on.

But even more impressive is that at the very centre of this information superhighway of seamless interconnection back and forth and in all thinkable directions is - the online library catalogue!

### **Copyright in the electronic world**

The change from analogue to digital resources implies fundamental changes in copyright. Although traditional copyright legislation usually protected the rights of authors for their works in any manner and form, new legislation is being brought forward to reflect the characteristics of this new environment.

A consequence for libraries is that the exceptions for reproduction and loan granted as "free-use-zones" in the hard-copy world will not cover the use of electronic resources. Exceptions regarding the use of digital material in libraries have to be specified. Moreover, the balance of rights between copyright owners and the interests of the larger public concerning education and research purposes and in general access to information, still needs to be found.

Whereas in an analogue environment, libraries are sharing resources through interlibrary loan and document delivery, this is no longer evident in the digital

environment. In fact, there is a trend among (larger) publishers to take over this role by selling individual electronic copies.

Another consequence is the clear separation between the rights for the paper version and the rights for the electronic version. Recent case-law has shown that without any clear contractual specification to the contrary, authors have granted only single-occasion, single-medium rights in their works and have retained all rights in respect of any subsequent use in electronic media.

This point is of high importance to the Council where we (intend to) make accessible on the Web documents and publications which have been first published on paper. For that reason, we should clearly spell out the transfer of the electronic rights to the Council in the contracts with our authors. A suggestion in this sense has already been made to the Council's Legal Department which is responsible for the standard contracts for authors.

In the world of scholarly communication, the full transfer of rights from author to publisher is felt to be an impediment to the widest dissemination of results. Therefore, initiatives are being taken to ensure that universities retain if not control, at least access to copyrighted material produced within their walls. In the Netherlands, for example, the employer copyright exists, but is usually not applied for scholarly publications. Instead, a reallocation of copyrights has been proposed for the Dutch universities: individual authors are asked to conclude with their publishers an agreement through which the university may have free access to the copyright protected work.

## **Licensing**

Access to and usage of electronic resources does not only depend on legislative law (copyright). The preferred business model of right holders is licensing electronic resources, license agreements being subject to contract law. Between these two legal mechanisms dealing with intellectual property, contract law takes precedence. That means that the terms of a copyright licence can override copyright principles such as statutory exemptions aimed at preserving user freedoms.

The digital environment has brought a paradigm change in acquisitions. One no longer buys ownership, as was the case with printed material, but access. New business models have emerged such as temporary access (rental), frequency rate access (pay-per-view) or article-level access. The abolition of the ownership concept poses problems regarding traditional library functions (international library loan, long-term preservation, etc.), but the access approach provides also new opportunities such as the new availability of a very useful by-product: statistics regarding usage of resources.

From the library point of view, the following issues should be included in a licence agreement for access to electronic resources: access by authorized users also from outside the site, perpetual access after licence termination, an indication of the competent place of law, reasonable liability, delivery of user statistics, statutory exemptions as defined in copyright law, interoperability with online library catalogues and Internet portals, etc. A non-cancellation clause which forces the client to continue

the paper version alongside the electronic version is not acceptable. Instead, charges for electronic licences should be separate from those of paper subscriptions, and a discount should be given where the information is delivered solely electronically.<sup>17</sup>

Regarding perpetual access, two aspects need to be considered: first the right to perpetual access as such, then the practical mechanism of accomplishing perpetual access, e.g. the delivery of tapes or CD-ROMs, possibly for an additional fee. Libraries are advised to keep print copies - which are, by the way, not easily preserved either.

Walk-in users, i.e. individuals which are not members of the institution, should be considered part of the contract population, if they are in the library and using library equipment. Interlibrary loan remains a difficult subject in licence agreements. Some felt that libraries should not give in on this, as it is such an important measure to expand libraries resources when specific needs turn up, as no library can afford to subscribe to all the journals which might be required.

Package licenses - concerning all e-journals of a publisher - have been interpreted differently. On the one hand they bring the cost per journal down, on the other hand they imply the support for journals which one would not buy and which would vanish otherwise. An argument against the idea that this seems to be a wasteful "support of a loser" was brought by the US consortium OhioLINK. They made the observation that these additional journals, although first considered of no use, have in fact being used frequently once they were made available! The selection policy for collection development is built on the assumption that the library knows what the user needs are, but this example shows that users might want different information than expected.

It was also felt that the acceptance of using an electronic collection is better, when an important number of resources is available: critical mass makes the digital library.

### **Forming consortia and negotiating**

Negotiating an acceptable licence agreement is of vital importance to libraries. Building consortia between libraries gives them a better bargaining position and reduces negotiation costs.

For licensing access to e-journals, consortia achieve more than what they would have achieved on their own, not only for the joint forces, but also for the special interest they arouse in publishers. The costs of providing more access to e-journals after the production of the first electronic copy do not increase significantly for the publisher. Therefore, it is good business for him to sell in one deal a licence which foresees access to a high number of people.

Successful consortia need to have a clear goal and objective, a legal structure, good communication channels, an infrastructure, similar because of similar user groups, etc. A clear mandate from funding authorities is vital.

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<sup>17</sup> Useful guidelines can be found in the licensing principles of the International Coalition of Library Consortia (ICOLC): *Statement of Current Perspective and Preferred Practices for the Selection and Purchase of Electronic Information*, 1998. Available at <http://www.library.yale.edu/consortia/icolcpr.htm>

The Central Library of the Council of Europe already took a step in this sense of collaboration, when they proposed to put available journal budgets of all journal subscribers within the Council together, in order to have a bigger budget and thus a better bargaining base with subscription agents.

If the Central Library is interested in a consortium, suitable partners are not evident owing to a very particular situation. It would be an opportunity to look at libraries of other international organizations, perhaps in the context of EUROLIB<sup>18</sup>.

However, International consortia are facing problems such as different taxation regimes, copyright laws, and the necessary decision on the court of law.

Successful negotiations require an exact knowledge of budget conditions, knowledge of business partners and the environment of the company, a clear idea of objectives and their reasons, listening skills - and flexibility.

### **Open access to information**

Access to information has changed profoundly in the electronic environment, as information can be accessed 24 hours a day and from anywhere. The traditional task of collection management, which was more a management of limited resources, has changed to provide access to resources and to insist on reasonable principles towards rights holders.

Open access publishing appears to be a permanent feature of the Internet. There is an abundance of quality information that is available to everybody without payment on the Web.

Obviously, there is no such thing as free information. Digital libraries have the potential of bringing information to everybody at very low cost, lower than in conventional publishing, but still, open access is not free to produce. Somebody pays for it, but this is not necessarily the user who actually accesses the information.

Economic models for open access publishing on the Web are similar to the ones for other media such as radio or television. Open access is financed through advertising or external funding, usually by the producers of the resources. In the case of government bodies or bodies supported by public funding, this is taxpayers' money. The taxpayers come in also at another end: because they pay for the public bodies, they expect also to know what the activities are, how the funds have been used and what results have been achieved.

Since the Council is supported by public money, it becomes a matter of political wisdom that the public domain has open access to our results. In fact, it was voiced at the Summer School on several occasions that publicly funded bodies such as governments and the international organizations including the Council

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<sup>18</sup> EUROLIB is the *European Community and Associated Institutions Library Co-operation Group* of which the Council of Europe's library is a member.

have a duty towards the taxpayers to make their results accessible to the public domain without payment.

The recent decision of the Council's Publishing Department to allow commercial publications to be published on the Web six months after the publication of the paper version, is already a good start. Unfortunately, not all publications will become available this way, as it is up to the discretion of single departments to use this option.

Furthermore, the Council should not overlook all the documents which should also be made available to the public domain, as long as they are not classified as restricted or confidential.

Of course, restricted access will persist on the Web. However, web-publishers will have to justify paying services with a true added value which consists, for example, in user-friendly interfaces with advanced search mechanisms or sophisticated tools for analysing the information. The users decide what they are willing to pay for.

There are various reasons for open access publishing on the Web. One is of course self-presentation: to publicize one's work and activities, to be visible, to get feedback. In fact, the Web is an efficient channel to reach the desired audiences. Another reason which was brought up is that the restriction of access and the management of authorized user accounts is quite expensive. Finally, the Web is an outstanding dissemination tool

It is high time that the Council recognizes the potential of the Web as a cost-effective dissemination tool. All these publications and A4 documents we are sending out on paper every day should be made available as PDF files which can be downloaded from the Council's web site via a document repository. Please note that there are no limits regarding size: also long and heavy tomes such as some of our Cultural Policy Review Reports can be converted easily into PDF files.

It would make our B-staff's working life so much easier: instead of sending out parcels, we could email to the interested persons the web address where they can find a particular document and let them download and print the whole document or the bits they are interested in. It would also reduce our storage problems, indeed we would could live with a nearly zero stock, and simply download and print a document ourselves, whenever we are dealing with somebody who has no access to the Internet.

Even the Council's "stick-in-the-muds" who are known for their hostility towards new developments, will be convinced if they look at the costs. Converting a document to PDF and hosting it on a server costs less than the production of paper copies, packaging material, dispatching - including the form to be filled in to accompany the delivery and, last but not least, the elastic band with which we are obliged to fix the form around the parcel - and postage, not to mention all the human resources around that.