
Consortia in Europe: Describing the Various Solutions through Four Country Examples

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ABSTRACT

This article describes and discusses consortia models in Europe. Emphasis is given to those consortia that support content provision and access to electronic information resources in society. Four country cases are introduced as examples of the heterogeneous solutions chosen by the consortia. The main results and impact of the consortia are discussed. International cooperation has played an important role in the development of consortia in Europe. Regional and global collaboration initiatives are also discussed.

INTRODUCTION

The number of library consortia existing worldwide is significant. More than 180 organizations are listed on the International Coalition of Library Consortia's Web site, and almost 40 of these are European organizations. Europe is a mix of different cultures, languages, and nationalities, with varying historical and cultural backgrounds; there are more than forty countries and around forty languages spoken in Europe. In many countries more than one language is spoken as a native language. In many parts of Europe, especially in the south and east, electronic resources in languages other than English are required. Very often, providing these alternate resources has proved difficult. The economic situation in European countries differs very much as well. In most parts of Europe, the national information technology (IT) infrastructure is of very high quality and forms the basis of the development of digital services. However, this is not yet the case in all European countries.

The models chosen for consortium cooperation in Europe range from centralized to decentralized solutions and from well-organized to poorly organized consortia; funding and staffing solutions vary as well. Giordano

(2002) has analyzed library consortium models in Europe. He has found three basic models: national centralized models, national decentralized models, and regional models. National centralized models are typical for the Nordic consortia. France is an example of a national decentralized model. In Belgium the French and Flemish speaking universities have each formed their own consortium. These might be called regional consortia. In many countries, more than one model is in use. For example, in the UK there are discipline-based, regional, and national consortia.

Today there is a strong emphasis on national and international cooperation in libraries. In Europe, cooperation within the European Union is highlighted, and there are also some signs that cooperation with Asian countries is becoming more active. The changes in the working environment of libraries most likely have increased the need for and the benefits of cooperation. In the digital environment, services can be centralized, resulting in significant savings, and the division of labor between various stakeholders can be redistributed.

FINLAND

FinELib: The National Electronic Library Program

The National Electronic Library program of Finland—FinELib—was launched by the Ministry of Education in 1997. The aim of its activities during the first years of its operation was to support higher education, research, and learning in Finland. The program was started in accordance with the government's Information Society Programme. The basic goals of FinELib were to increase the amount of electronic information available to users, to improve information retrieval from the Internet, and to develop a graphical user interface to give access to heterogeneous information resources available to users from different sources. The goals have remained the same, but the focus of the program has been enlarged. Since 2004 the emphasis has been on promoting access to information for everybody.

For the period 1997–99, operations were of a project nature (Hormia-Poutanen, 1999), but from 2000 onwards operations have become a standard part of the activities of Helsinki University Library—the national library of Finland. During the first years of operation, the principles that guide the activities were formed. These principles cover such topics as licensing policy, share of central funding, selection of resources to be licensed, development activities, and cooperation with the library network as well as with other important national and international players (Hormia-Poutanen, 2002a).

The funding model is based on centralized funding from the Ministry of Education and consortium members' own funding. In the first years of operation there was government funding for the universities only. Today,

polytechnics and public libraries also receive government funding. The level of central funding in 2005 is 4.5 million euro.

The FinELib Consortium: Crossing Organizational Boundaries

The National Electronic Library program is itself a consortium that, in 2005, consists of 108 members. All universities, polytechnics, and public libraries, as well as 36 research institutes, belong to the FinELib consortium. Libraries in Finland are accustomed to working within their own sector; funding is also allocated to each sector separately. FinELib is one of the first programs in which different types of organizations work hand-in-hand to obtain synergy from cross-sectoral cooperation. Due to large, shared national projects, such as the implementation of the national portal, the Ministry of Education has also seen the need to coordinate activities across the library sectors.

The main principles guiding the management of the consortium have been defined in the Memorandum of Understanding (MOU, 2004), which has been updated recently and covers the period 2004–2006. FinELib has a service agreement that covers two main services: the licensing of e-resources and the maintenance of the national portal. In these service agreements, the responsibilities of the National Library and the customer have been defined.

The program is managed through three working groups. The high-level steering group is responsible for policy making, strategic planning, drawing up the annual Plan of Action, and evaluating the results. The group consists of top-level management from the universities, polytechnics, research institutes and their libraries, the public libraries, the Ministry of Education, and the end-users. The consortium group is responsible for more practical issues and consists of library directors from the four library sectors. The expertise of the various fields of science, as well as technology issues and the interests of end-users, are represented in the expert groups. Their main task is to submit proposals for resources to be licensed in the future and to develop National Electronic Library Interface (Nelli) portal services at the organization level. Although the final decisions have to be made by the National Library, this three-tier organization guarantees that all consortium members can make their voices heard and influence decisions.

National Electronic Library Program: An Active Player in the Development of the Information Society

In 2005 FinELib is a well-known and highly valued national program. Funding is directed toward the acquisition of high-quality electronic resources as well as the development of the national portal. The funding also includes additional costs, such as staff and staff development. The estimated total cost in 2005 is over 12 million euro, consisting of central funding and the organizations' own funding.

From the libraries' point of view, FinELib is regarded as a service center for libraries. A good deal of effort goes into developing the working methods within the service center to meet the needs of the libraries. Emphasis is also given to expanding the expertise of the staff. In 2005 the staff consists of twelve members, half of whom work on licensing issues and half on implementation and development of the national portal.

In 2005 FinELib signed license agreements covering 19,500 e-journals; 230 databases; and 25,000 e-books, dictionaries, handbooks, and even software (see Table 1). The acquisitions that are made through FinELib cover 84 percent of the acquisitions of electronic resources at Finnish universities. Thus, FinELib has a key role in providing electronic materials for the user population of universities. According to user surveys and usage information, the selection of resources meets the needs of the users well (Hormia-Poutanen, 2002b). Over the years FinELib has been operating, there has been a growing trend in usage.

The National Electronic Library Interface, Nelli, was launched for universities early in 2005. The implementation process was also started at public libraries and polytechnics. The portal will become a national service for end-users. The National Library will provide centralized services for the participating libraries, which will save a good deal of work. The portal will then be tailored at the organization level to meet the needs of local users. Individual users can tailor the portal to meet their needs as well.

Thus far, the most significant result of the FinELib program is the increase and improvement of high-quality content services on the Internet. The electronic material available to researchers, teachers, and students is considerably more extensive than ever before, and it can be accessed nationwide (Hormia-Poutanen, 2004).

Cooperation across organizational boundaries can also be considered as a very important result of the program (Hormia-Poutanen, 2002c). There is a strong emphasis on horizontal cooperation in the public sector in Finland today. Examples of this are the government policy programs, which encourage the ministries to cooperate to solve questions defined in the government platform. The impact of Nelli will be assessed later, when the service is in full production.

GREECE: HEAL-LINK

HEAL-Link (Hellenic Academic Libraries Link) started as one of the four action lines of a project funded by the Greek Ministry of Education under the umbrella of European Union Structural Funding. The project aimed at developing cooperation involving all the academic libraries in Greece. The action line that brought HEAL-Link into being was a mandate for cooperation to face the problem of the ever-shrinking journal collections in Greek academic libraries (Kohl & Dervou, 1999).

Table 1. Key Figures for FinELib in 2005

Indicator	Key Figures
Total cost	12 million euro
Funding	Central funding (4.5 million euro) Organizations' own funding
Consortium	108 members, including universities, polytechnics, public libraries, and research libraries
Governance	Memorandum of Understanding Service agreements (portal, licensing)
Licenses	19,500 e-journals, 230 databases, 25,000 e-books
Usage	3.7 million article downloads

HEAL-Link started operating in 1998 by signing its first agreement with Elsevier for access to the electronic journals in ScienceDirect. More agreements were signed during 1999 (for example, with Elsevier, Kluwer, Academic Press, MCB, and Springer), thus giving its members access to 3,500 full-text journals. OhioLINK has been the model for developing HEAL-Link (Xenidou-Dervou, 2001). Swets has been assisting HEAL-Link in negotiations and financial administration since the very beginning.

During its first three years of operation, HEAL-Link members were obliged to keep their print subscriptions to the above-mentioned publishers, while the project shouldered the extra costs relating to license agreements. In 1998 six of the thirty-four academic institutions had more than 80 percent of the total print subscriptions and carried the corresponding cost. By 2001 all of them were in debt and could no longer keep up the print subscriptions they were obliged to retain according to the license agreements. Following a proposal by the steering committee of HEAL-Link, the Council of Rectors of the Greek Universities decided that the consortium should move over to e-only agreements with mandatory cancellation of print subscriptions for the corresponding e-journals. One printed archive copy was to be deposited at the National Documentation Center. The cost was to be distributed among the institutions in accordance with the financial support each of them was receiving from the state. The Council of Rectors suggested that the financial contribution from each university budget be sliced off the top by the ministry and given to the coordinating organization to cover the cost of the license agreements. The ministry decided not to cut the budgets of the academic institutions any further but to shoulder the cost of all the HEAL-Link agreements with extra funding over the next three-year period (2003–2005). Starting in 2003 HEAL-Link had agreements with twelve publishers, thus giving its members access to 7,500 full-text, peer-reviewed journals (Xenidou-Dervou, 2003). In November 2004 the ministry promised to continue the central funding for the next five years, until 2009.

HEAL-Link has no legal structure. All the institutions have signed a memorandum of understanding with the coordinating institution. It is governed by a governing body of thirty-four members, one from each academic institution. The chairman of the governing body has the authority to sign the license agreements. A five-member steering committee appointed by the governing body is responsible for the negotiations and the running of the consortium. There are two full-time employees (one system administrator and one librarian) who keep the consortium portal up-to-date and offer a help desk to the members. These two employees are paid by the project, which will run until 2006.

In addition to licensing, HEAL-Link has also been active in developing a portal to provide access to e-journals (Xenidou-Dervou et al., 2002). The portal has been running since 1999. Users can also retrieve information on copyright issues in Greece using Zephyr, a Z39.5 interface that has been developed by the University of Crete, and simultaneously search the Online Public Access Catalogues (OPACs) of all Greek academic institutions, including the HEAL-Link portal. In 2005 HEAL-Link plans to start using a commercial federated search and open URL software application.

In 2005 HEAL-Link has sixty members (see Table 2). Members of HEAL-Link include all the Greek academic institutions funded by the Ministry of Education, plus a large number of research institutes of the General Secretariat for Research and Development, which operates under the Greek Ministry for Development. By constitution, all higher education institutions in Greece are public bodies.

The basic aim of HEAL-Link is to provide the entire academic and research community in Greece with access to full-text e-journals. This means that all the members have equal access to the full-text content. In addition to the main task, HEAL-Link also negotiates license agreements for groups of members interested in specific databases.

The acceptance and use of HEAL-Link e-journals has exceeded all expectations. Even without any publicity, there was hardly any resistance to switching to electronic resources only, and the usage statistics from the publishers demonstrate the high usage, which is continuously growing. The reason is that Greek universities moved from collections of 500 to 1,000 journals each on average to a collection of almost 9,000 peer-reviewed journals (including the open-access journals that have been added to the collection).

RUSSIA

NEICON: Nationwide Consortium Supporting Access to Electronic Information

NEICON (the National Electronic Information Consortium) includes 181 organizations in 2005. Among these are classical and specialized universities, public libraries, academic institutes, and other noncommercial organizations. The primary goal of the NEICON consortium is to provide

Table 2. Key Figures for HEAL-Link in 2005

Indicator	Key Figures
Members	Sixty academic and research institutions
Governance	Memorandum of Understanding
Funding	Central funding by the Ministry of Education
Services	Licensing Portal development and management
Licenses	9,000 e-journals
Archiving	In addition to archival rights, one print copy is deposited at the National Documentation Centre

Russian organizations with access to scientific information resources via the Internet (see Table 3).

The consortium's funding is based on multichannel financing consisting of fees from libraries, funds from the Ministry of Culture, and grants from various organizations, the most important being the Open Society Institute (OSI) and the Ford Foundation. All funds are transferred via the consortium's accounts and are controlled by the consortium. Most of the money is spent on subscriptions. Subscription costs are covered partly by third-party funds and partly by membership fees. The subsidy share varies from one resource to another and may also depend on the organization itself. For instance, the funds of the Ministry of Culture may only be allocated to the public libraries, which come under the control of the ministry. Administrative expenses (wages, business trips, seminars, telecommunications) are covered with funds from various sources. Initially, when the consortium was being created, equipment and staff wages for the first year were covered with an OSI grant; today administrative expenses are covered by funds from the Ministry of Culture and membership fees.

The NEICON consortium is a legal entity that was registered according to the law of the Russian Federation in November 2002. NEICON is a noncommercial partnership established by five institutions: the Russian State Library, the Russian National Library, the Library of Foreign Litera-

Table 3. Key Figures for NEICON in 2005

Indicator	Key Figures
Total Cost	Approximately 1 million euro
Funding	Central funding, grants, membership fee
Consortium	181 members 104 universities, 34 academic institutions, 37 public libraries, 6 other insitutions
Governance	Coordination council Frame agreement
Services	Licensing, training
Licenses	About 10,000 e-journals
Usage	About 1 million documents downloaded in 2005

ture, the Pushkin Library (a noncommercial foundation), and the Science Information Support Foundation. All consortium members have signed a framework partnership agreement. Each subscription is based on an additional agreement specifying the costs and methods of payment. The consortium is directed by a coordination council, which makes corrections to and approves the strategic plan for the current year. The council has developed a network of experts who promote the use of the resources at their parent organizations.

One of the core aims of NEICON is to promote the use of electronic resources in its member organizations. The Russian end-users are not yet accustomed to using electronic resources and are somewhat reluctant to do so. They also lack the necessary skills.

NEICON Services and Results

The main service the consortium offers its member organizations is negotiation licenses with good pricing and legal conditions. In some cases, license agreements have been reached totally free of charge. Since the majority of the providers are foreign, the consortium helps to solve legal problems concerning the adaptation of the licenses to Russian law. Advice is also given on solving problems associated with economic issues—for example, currency-related questions and methods of making international payments abroad.

In addition to licensing, training on consortium activities, licensing, resources, etc. is organized for the consortium members. Since the Russian Federation is a large country, NEICON usually organizes training sessions in the regions to reduce transportation costs. Such regional training sessions are usually organized at universities or central libraries, and all interested organizations in the region are invited. NEICON collects and analyzes usage statistics to evaluate use. Statistics are also collected about trial access to track potential users. End-user surveys are also run by the consortium.

The main results of NEICON include a significant increase in the electronic resources available to Russian organizations and a steady growth of the number of users. At the beginning of 2002 Russian participants in the eIFL Direct project had only a few EBSCO Publishing databases, which included about 3,000 journals. In 2004 license agreements were signed with several leading providers: EBSCO Publishing, Cambridge University Press, Oxford University Press, LexisNexis, CAB International, ProQuest, World Bank, Elsevier B.V., and several Russian languages resource providers. The total number of journals available through NEICON contracts is about 10,000 e-journals. The number of organizations subscribing to EBSCO databases in 2002 was 65, but NEICON now has 181 official members.

Providing access to the electronic resources is, however, only the first part of the goal of the project. The main goal for the next few years is to provide the members of the consortium with information services on

existing resources; namely, to create a suitable approach to analyzing the completeness of the information support in each organization and the databases used and to create a single point of access. NEICON has high hopes for the Open Access Initiative, which is also expected to develop in Russia. Another priority is to help create and develop scientific resources in the Russian language, which are very scarce at the moment.

The NEICON consortium is a unique organization in Russia. NEICON is contributing a great deal to the development of the information society and promoting information equality in society, something that has been somewhat problematic over the last few decades. The Ministry of Culture has been supporting NEICON for the last three years, and support from other government bodies is expected.

THE UNITED KINGDOM

UK Library Consortia: Regional, Discipline-Based, and National Consortia

The UK has a variety of different types of library consortia ranging from regional consortia, to specialist discipline-based consortia, to national consortia that focus on electronic library resources. They are constituted and managed in a variety of ways. Some are traditional consortia consisting of a defined group of libraries working together to enhance services for users through, for example, procurement of library resources, staff training and development, and reciprocal access agreements. Ball defines these consortia as “an association of independent organisations that act in concert to procure for themselves goods and/or services specific to libraries” (Ball & Pye, 2000, p. 25). Other consortia—in particular the national consortia—are what might be termed “loose” consortia that negotiate with suppliers on a national basis; libraries opt-in to selected deals for the resources they require.

Typical of a traditional regional consortium is the North West Academic Libraries (NoWAL), a consortium of all the UK University and College of Higher Education libraries in Cheshire, Cumbria, Greater Manchester, Lancashire, and Merseyside in the northwest of England. In addition to consortia purchasing of printed journals and books, NoWAL has also moved into the area of electronic resource purchasing, including a recent agreement with NetLibrary for electronic books. In addition, the consortium offers collaborative staff training and development, promotes interaction with providers of information and communications technology (ICT) services for higher education in the northwest, and promotes cross-domain and cross-sectoral collaboration with organizations such as public libraries, museums and galleries, and the National Health Service (NHS). Research undertaken by Ball (Ball & Pye, 2000) indicates that expenditure by the eight higher education library consortia that geographically cover the whole of the UK amounts to over £85 million, or 125 million euro.

Discipline-based consortia are also successful in the UK. An example of such a consortium is the Consortium of Health Independent Libraries in London (CHILL). CHILL currently has thirty-five members, representing over one million users, including major libraries such as that of the British Medical Association, public information organizations such as the Family Planning Institute, research institutes such as Cancer Research UK, and major health organizations such as the Public Health Laboratory Service. Whilst operating mainly as a purchasing consortium (it has negotiated contracts for 8,500 printed journals for its members), it has also initiated other resource-sharing projects and provides a common voice to represent the interests of its members in national information or health initiatives.

A rather different type of consortium, whose primary focus is not purchasing, is the Consortium of Research Libraries (CURL). CURL's stated mission is to "increase the ability of research libraries to share resources for the benefit of the local, national and international research community" (CURL, 2005). To further that mission, the consortium works on collaborative research, advocacy, and the forming of strategic alliances to benefit research support. CURL's membership comprises the major research libraries in the UK, including the British Library, Oxford and Cambridge University libraries, the National Libraries of Scotland and Wales, the library of Trinity College Dublin, and twenty-two other university and specialist research libraries—a total of twenty-eight members in all. An important research tool supported by CURL, and funded by the Joint Information Systems Committee (JISC), is the union catalog COPAC (copac.ac.uk), which gives free access to the merged online catalog of all its members and contains some 30 million records.

CURL is currently engaged in a number of significant research projects that benefit both the libraries and users of CURL institutions as well as the wider community. Ongoing projects include the Archives Hub, which provides a single point of access to the descriptions of archive collections held in universities and colleges in the UK; Britain in Print, which provides electronic access to significant collections of pre-1700 British books for the benefit of the general public; SHERPA (Securing a Hybrid Environment for Research Preservation and Access), which focuses on institutional e-print repositories; and, most recently, ETHOS (Electronic Theses Online Service), which aims to provide electronic access to all UK university research theses.

In addition to regional and specialist consortia, the UK also has other organizations that act as consortia (particularly in relation to purchasing) at the national level. The first is Eduserv Chest, a not-for-profit organization that acts as a "buying club," negotiating for commercially available e-resources for the UK education and research communities as well as institutions outside the UK in various Scandinavian countries and the Republic of Ireland. It has one simple objective: to negotiate for and manage

e-resources requested by the community. It is “driven only by demand and the need to provide better value for money than can be obtained elsewhere” (Eduserv Chest, 2004). Demand is assessed in conjunction with the JISC User Group—comprising subject librarians from around the UK—and a product “wish list” is compiled and evaluated.

Eduserv Chest developed from an organization called CHEST (Combined Higher Education Software Team), which, as its name suggests, was originally focused on national negotiations for computer software licenses. During the 1990s it added bibliographic databases to its portfolio by negotiating a national license for the Institute for Scientific Information (ISI) Citation Indexes. The UK service was hosted by Bath University at the Bath Information Data Service (BIDS). A large number of UK academic libraries opted to license the ISI Citation Indexes through CHEST, and successful negotiation for other databases followed. Currently, CHEST offers a wide range of commercially available e-resources including abstract databases, full-text e-journals and e-books, and courseware. Agreements are usually for three or five years, almost all being site licenses, which means that all students and staff within an organization may use the licensed resource either on or off campus. Payment is by a single, fixed annual fee to Eduserv Chest.

Probably the key organization in consortia purchasing in the UK is the Joint Information Systems Committee (JISC), which is funded by the UK Further and Higher Education Funding Councils. JISC has a wider remit than just libraries and e-resources as it is also responsible for the UK higher and further education computer network JANET (the Joint Academic Network) as well as the development of the technological infrastructure to support learning, teaching, and research. However, it is the JISC collections strategy and the activities of the JISC Collections Team that will be examined in this article.

The Role of the JISC in Supporting Education and Research through Consortia Licensing

The draft JISC Collections Strategy of 2004–2006 states that the Collections Team mission is “To negotiate for, and, where appropriate, to licence, quality assured electronic materials that will provide the JISC community with a range of resources to support education and research” (JISC, 2004). While negotiations for content are conducted at a national level (sometimes using the services of an external Negotiating Agent), it must be stressed that JISC is a loose consortium. Once terms have been negotiated with a publisher, any higher education institution may accept them. Participation in any particular deal is voluntary, not compulsory. Such a system is perhaps not ideal. As pointed out by Friend when discussing the National Electronic Site Licensing Initiative (NESLI): “we cannot bargain as effectively as we could if we knew that we could offer the publisher a definite number of

subscriptions. The situation is not ideal, but it is one we have to live with given our political environment" (Friend, 2002, p. 21). Nevertheless, many libraries and colleges do opt-in to national JISC deals and good terms have been negotiated.

The JISC budget for Content and Services is just over £10 million (14.68 million euro). However, this is not all for licensing content but includes the financing of content-related services such as the JISC data centers, which host JISC-licensed content and services such as ATHENS (a service used to authenticate and authorize users for access to online services).

Six format-based Working Groups support the Collections Team in acquiring online resources, and members of the groups are drawn from the educational community. Formats covered are journals, e-books, images, moving pictures and sound, geo-spatial data, and learning materials.

Examples of the wide range of resources available for libraries to subscribe to or license within the JISC portfolio include the following:

- Licensing of over 9,000 scholarly journals through NESLI2 negotiation with 10 major e-journal publishers
- Acquisition, in perpetuity, of more than 125,000 e-book titles published between 1473 and 1700 in the Early English Books Online (EEBO) collection
- Partnership with the Universities of Michigan and Oxford in the EEBO Text Creation Partnership to create fully searchable text files
- Licensing of Ordnance Survey map data, which is then made available through the Digimap service
- Licensing of the Managing Agent and Advisory Service (MAAS) Media Online collection of hundreds of films and videos, copyright cleared and digitized by JISC
- Building an e-reference e-book portfolio comprising Britannica Online, xreferplus, and Oxford Reference Online

A range of economic models is utilized by the JISC to make e-resources as widely available and accessible as possible to the education community. The models used depend upon the type of resources in question. "Heritage collections" include digitized images of rare and/or inaccessible materials such as journal back files and older books. The static nature and high value of these scholarly collections allows the JISC to provide access and financial benefit through perpetual licenses at a national level. Education institutions are not required to pay a subscription fee for the content but may be required to pay a modest access fee.

"Mature resources" are those that are well established within the community. In such cases, negotiations on price and license terms are undertaken at the national level but, once an institution has opted-in to the deal, the license agreement is between the publisher and the subscribing

institution. It should be noted that JISC negotiations require that a Model Licence is signed by the publisher. The original license conditions were drawn up in extensive consultations between the JISC, the Publishers Association, and the Association for Learned and Professional Society Publishers (ALPSP).

“Specialist resources” are those that provide high value to those undertaking research, teaching, or studying in a particular niche discipline. Careful consultation with the JISC community ensures that subscription take-up is predicted accurately. This means that the JISC can negotiate good terms, and, in some cases, the JISC will subsidize such deals.

Finally, in line with its overall mission, the JISC is keen to promote innovative resources. These may originate from the commercial sector or from the JISC community, and the JISC National Data Centres often play a key role in developing exemplar services. In such cases, JISC provides a planned subsidy that may well decline as products move through their life cycle.

COOPERATION IN CONSORTIUM LICENSING

Cooperation is the basis of library activities. Libraries cooperate within their parent organization, between libraries, and also with various stakeholders. Cooperation has also played a key role in promoting consortium licensing and in developing expertise at libraries. In Europe the International Coalition of Library Consortia (ICOLC), the European ICOLC, and Electronic Information for Libraries (eIFL) have had very important roles in promoting cooperation between libraries and in promoting consortium development and licensing. Cooperation among these three players has become more active over the last few years.

The first licensing principles in Europe and in the United States were developed in collaboration. In Europe a group of German and Dutch libraries created the *Ligue des Bibliothèques Européennes de Recherche* (LIBER) principles, which have had a very important impact on licensing in Europe. For example, in Finland the Council of University Rectors has recommended that the LIBER principles should be followed when licensing electronic content for Finnish institutions. ICOLC principles have been created in collaboration with North American libraries. The latest update was carried out as a North American–European collaboration, indicating that our aims are the same in different parts of the world. International licensing principles have made the aims of libraries known to publishers and have helped consortia worldwide to reach their goals in negotiations.

ICOLC meetings in North America and Europe, eIFL meetings, and the ICOLC and eIFL mailing lists have made it possible for consortia to share experiences and learn from each other. Altogether, it is very important that consortia have forums in which to meet and discuss consortium issues. In addition to international cooperation, regional cooperation has been important, especially in northern and southern Europe. eIFL has played

a crucial role in supporting the Eastern European countries in knowledge sharing, promoting Open Access, and developing consortia activities, as well as in licensing.

Nordic Cooperation

Nordic research libraries have a long tradition of networking and sharing resources. The Nordic Council for Scientific Information, NORDINFO, was for many years an initiator and a source of funding for initiatives to promote such cooperation. Cooperation and networking within the field of consortium licensing can be seen as a natural extension of this Nordic tradition.

The task of licensing on behalf of academic libraries was taken on in the mid- to late 1990s by organizations with experience in library cooperation within their own countries—in Denmark by the Danish National Library Authority, in Finland by the National Library, in Norway by the Norwegian Archive, Museum and Library Authority, in Iceland by the National Library, and in Sweden by the Royal Library.

The Nordic national consortia—DEF (Denmark), FinELib (Finland), ABM-utvikling (Norway), and BIBSAM (Sweden)—have a lot in common, but each of them still has its own characteristics. National licensing in Iceland has developed somewhat differently from the other Nordic countries and will not be examined further here.

The Nordic licensing offices are formally integrated into large, stable government organizations. Usually, one licence is signed on behalf of all the participating members and one invoice is issued. The membership of each consortium is usually large and well defined. These characteristics contribute to making Nordic consortia attractive as negotiating partners for publishers. Overlapping membership between consortia can be a challenge in other countries. This is practically nonexistent in the Nordic countries.

Since the time of establishing national licensing offices, the staff at DEF, FinELib, ABM-utvikling, and BIBSAM have been engaged in an informal network. The group now meets regularly and communicates via an internal e-mail listserv. Estonian librarians have also participated in the meetings, especially when they have taken place in Finland. The objectives of the network have changed over the years. Early on, license negotiations and library consortium management were brand new tasks for the staff involved. The Nordic network provided a welcome opportunity for organizations to discuss and exchange experiences with peers who found themselves in similar situations, faced with similar challenges.

The transition from paper-based to digital journal collections has progressed rapidly in the Nordic countries, supported by well-developed technical infrastructure. The increasing costs of scientific journals has motivated libraries to cancel print subscriptions to journals that are also available online, but only if archival access is granted through the license. E-only licenses, with no discount for print subscriptions, are preferred by both

FinELib and BIBSAM. This has allowed Finland and Sweden to explore alternative models for cost division within their consortia (Stange et al., 2003). In Norway the transition toward e-only has been slowed down by unfavorable Value Added Tax (VAT) regulations. DEF members prefer to have the option to purchase print subscriptions at discount rates. These differences can complicate the picture in multiconsortia negotiations with journal publishers.

Some of the concrete results of collaboration include joint Nordic licenses and work-around cost division models. In 2002 Nordic licenses were signed with the American Chemical Society (ACS) for access to ACS Web Editions and ACS Journal Archives and with the Nature Publishing Group for access to Nature Journals. For legal as well as practical reasons, each consortium signed separate licenses. The Nordic licenses had almost identical content apart from membership and contact information. The same concept has subsequently been tried with a few other publishers without Nordic agreements being reached. In some cases, two of the Nordic consortia signed a licence, while others declined.

South European Libraries Link (SELL)

Consortium collaboration in southern Europe started in 2001. SELL consists of Greece, Italy, Portugal, Spain (Catalonia), and Turkey. A statement by the Catalonian consortium in Spain on the ICOLC mailing list in 2000 provided the impulse to start collaboration between these countries. The statement made it clear that the southern European countries face the same kind of problems. SELL organizes annual meetings in the participating countries. The cooperation of the consortia in the Nordic countries has been the role model for SELL.

NEICON

Cooperation is the basis of the activity of NEICON in Russia. As the consortium operates in a large territory, libraries are grouped in certain regions to serve as mini-consortia within NEICON. The NEICON consortium is a member of eIFL and ICOLC. eIFL has been the main initiator of the creation of the consortium in Russia, and knowledge and experience has been gained through eIFL. Currently (in 2005), eIFL is the primary foreign partner of NEICON and is helping to promote the project.

Experiences of Regional Cooperation

The experiences of collaboration in the three cases described above are positive overall. Within the Nordic consortia, sharing knowledge on consortium issues, licensing, and negotiating has expanded the expertise of the staff involved. For example, benchmarking of prices, processes, and tools used in the licensing process has been invaluable. The exercise the Nordic group has developed around cost-division models is an example of a practical problem that has been solved through cooperation.

For the publishers, negotiations with the group of Nordic consortia representatives has offered an opportunity to efficiently reach a large market through one or more well-defined points of contact. As similar terms are wanted in the Nordic licenses, the process of reaching agreement on specific terms could be made more efficient. One objective has been to convert these efficiency measures into better discounts for the consortia and thereby offer a deal that would attract many participants. Another objective of the group negotiations was to provide the publishers with information about the characteristics of the Nordic consortia. Through better mutual understanding of local, national, and Nordic issues, licenses could be tailored to the group's special requirements. It is difficult to judge how well these objectives were met, as there is hardly one single consortium deal that can serve as a relevant point of reference. However, one specific outcome was the message that the Nordic consortia preferred e-only agreements for e-journals, that archival access was important as part of the provisions in such licenses, and that these two issues could be efficiently communicated through approaching the publishers as a group. Lessons learned also include a better understanding of the complexity of consortium negotiations.

In southern Europe the development of regional ties has helped to address common problems and overcome isolation. The southern consortia support each other by building up mutual strengths. eIFL has played an important role in promoting consortia development and licensing in Eastern Europe.

eIFL: GLOBAL COOPERATION

eIFL was established in October 1999 as an initiative of the Open Society Institute (OSI). OSI is a private grant-awarding foundation that is part of the Soros Foundation Network. In 2002 eIFL became an independent foundation. The goals of eIFL are to build sustainable national consortia within the participating countries; be the premier multicountry negotiator to secure affordable access to commercial electronic information services; advocate the development of locally produced digital resources; promote the resources of open-access content providers; leverage multinational expertise and resources to expand the availability of and access to commercially produced and open access information; keep members at the cutting edge of relevant information and technology services; and develop model partnerships with global funding agencies, foundations, consortial groups, and content providers.

Today, eIFL is a major international umbrella organization; its network encompasses nearly 4,000 libraries across European, African, and Asian countries. New members from the Middle East joining eIFL this year will increase the number of participating countries to 50 (see Table 4).

Central and Eastern Europe as well as the former Soviet Union have been at the core of eIFL activities from the very beginning, building upon the work of the Open Society Institute in those countries as

Table 4. Key Figures for eIFL in 2005

Indicator	Key Figures
Members	50 countries 4,000 libraries
Services	Licensing Provision of model licenses Consortium and capacity building Guidelines Knowledge sharing Open Access program Intellectual property and related issues program Advocacy

far as library development and modernization issues are concerned. In Europe the current members are Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Estonia, Kosovo, Latvia, Lithuania, FYROM (former Yugoslavian Republic of Macedonia), Moldova, Poland, Russia, Serbia and Montenegro, Slovakia, Slovenia, and Ukraine. These countries have sophisticated education systems, thus representing an emerging market for international providers of scholarly information. Unaffordable subscription costs alongside relatively little awareness of the electronic alternative to print subscriptions posed a barrier to access to international academic journals and databases. When eIFL started working in 1999, this lack of access to electronic resources determined that the key priority should be to guarantee sustainable access to Internet-based digital material through multicountry negotiations with providers, resulting in highly discounted subscription rates that are affordable for the participating countries. In addition, eIFL has developed a model contract and model licenses to be used in connection with the deals reached by eIFL with individual publishers.

Estonia, Lithuania, Latvia, and Poland played an inspiring role for the rest of the countries, considering that they already had some experience in setting up consortia for union catalogs and library automation systems. Those library consortia that already existed saw their networks and roles strengthened. Some of the countries listed above have a consortium registered as a legal body, and in a number of countries, due to local legal restrictions, consortia are bound by a memorandum of understanding (MOU) and are not legally registered. Funding for subscriptions also varies; some of the libraries receive central funding, while in other cases libraries contribute to the cost according to cost-sharing formulas worked out internally.

Because eIFL operates on a global scale, special attention had to be paid to communication. Information technology is widely used in information sharing amongst eIFL consortia; this includes listservs, discussion groups, and the eIFL Web site, but getting to know each other and exchanging views face-to-face at national and regional workshops and the annual general assembly remains equally important.

eIFL's efforts have yielded fruitful results for creating sound library consortia, empowering them with effective bargaining powers vis-à-vis the providers and keeping participating countries updated with cutting-edge trends and the latest news on information and technology services. Furthermore, important achievements have been reached on capacity building and information- and knowledge-sharing activities. All in all, eIFL has managed to achieve these results through its close relationship and sound knowledge of the situation in the participating countries, by enjoying active participation in national consortia, and by gaining a good reputation for being an effective negotiator and a reliable partner. As it has progressed, eIFL has encountered many challenges when carrying out its activities given the various infrastructures, wide geography involved, and different political situations, as well as the varying degrees of public access to information, the availability of funding, and the lack of skills when working in the electronic environment. However, these shortcomings have been decisively counterbalanced with the enthusiasm and commitment of library professionals in the participating countries.

While eIFL is continuing its core activities—namely, the negotiation of licenses for electronic resources, training programs on electronic resources and consortium management, and the geographical expansion to new developing countries—in 2005 it has added new services to its agenda such as the promotion of Open Access, pilot projects in institutional repositories, and capacity building and expertise in intellectual property issues, thus representing the interests of the participating countries in key international policy forums. Last but not least, eIFL is also looking into technology solutions that will help maintain affordable management of electronic information resources such as portals and open source software for libraries.

CONCLUSIONS

In the four country cases described above, the activities of the national consortia in developing content provision through licensing are supported by the relevant governments. The funding structures as a whole, however, are different in each country. In Greece, in addition to government funding, European Union funding has also been important. In Russia, funding consists of government and Open Society Institute funding and membership fees. When comparing the expenditure of consortium activities in the examples, a clear difference based on various factors can be seen. In the UK the expenditure of eight higher education library consortia is around 125 million euro; in Finland the total cost of the national consortia is over 10 million euro and in Russia about 1 million euro. The policy of allocating government funding to licensing has had very high impact, especially on research and education. In most European countries, however, licensing is not supported centrally. It is more common that support is given to digitizing cultural heritage. Actually, both action lines are needed to meet the needs of different user groups.

In Greece, Russia, and the UK the funding allocated to consortium activities is temporary; in Finland the government funding is permanent and it covers some of the licensing costs, all national portal costs, and all staffing costs. Under the umbrella of the eIFL, member countries cover the costs of licenses themselves. In Greece funding will be allocated for resources until 2009 and staffing is based on project funding.

On the basis of experiences in Finland, it is obvious that permanent funding has been crucial in developing the program and in gaining significant results in a short timeframe. Permanent funding has also raised the status of the activities in the country. Having permanent staff has been a prerequisite for innovative development of services and processes. The lack of permanent staff can be a major obstacle when developing content provision and all the related services in society. Volunteer work can result in good results in the short term, but it is very difficult to offer permanent services based on that kind of solution.

In all the examples, electronic journals are the core resources to be licensed, but other information resources are also acquired. In the UK a wide variety of resources are licensed, ranging from journals, e-books, images, moving pictures and sound, and geospatial data to learning materials. The scope of licensing is far wider than in the other country examples described. JISC also emphasizes the promotion of innovative resources. This is something other consortia could consider adding to their agendas.

Often licensing is not the only service the consortia are providing. Many consortia develop methods of easy access to information. HEAL-Link in Greece has developed a homemade portal solution and is planning to change the system to a commercial one in order to be able to use Open URL linking, for example. NEICON in Russia is planning to develop one entry point to access the licensed content. Experiences of the national portal and Open URL solution in Finland are so far limited, because only half the universities are in production. Expectations are very high, however, and experiences so far are very promising.

The authors of the country cases were asked to list major challenges for the future. The need to implement new business models and develop cost effectiveness, evaluation of usage and user behavior, as well as organizing archival rights access were mentioned among the top priorities. There is an urgent need to develop business models that allow consortia to manage license costs. In Greece the libraries were forced to move to e-only in order to manage the costs of licenses. In the longer run this is not enough. There have to be mechanisms to manage the costs of e-only licenses as well. The current trend where price increases are higher than the inflation rate is not sustainable. There is also new digital content coming onto the market. The consortia need the flexibility to purchase new types of content in addition to current collections. It will be very interesting to see what the impact of Open Access publishing will be on the commercial publishing market. The

work eIFL is doing in the promotion of Open Access is considerable. Other initiatives such as Scholarly Publishing and Academic Resources Coalition (SPARC) and national initiatives are also important.

The financiers of the licenses are interested in the cost effectiveness of the licensing as well as in licensing indicators. Neither of these issues is a simple one. How much do we save with consortium licenses compared with printed acquisitions? How can we estimate the value of increased access? How much money and time do e-only solutions save at libraries? How can we estimate the cost effectiveness of quality, for example, the quality of contracts? How much time does a researcher save due to easy access to vast amounts of high-quality resources? When the consortia have the answers to these questions it may be easier to persuade the financiers to support licensing more generously.

Greece, Finland, and Sweden have more or less moved over to e-only journal collections. Archival rights issues are crucial when such a policy has been chosen. In Greece, in addition to the legal archival rights, one print copy of all the journals licensed is deposited in the National Documentation Centre. Sweden and Finland have chosen to have archival access to electronic content. How archival access will be organized in reality remains to be seen. For libraries the most practical solution would be to gain archival access from publishers' servers. Some consortia, for example OhioLINK, have chosen to mount the content on their own servers. In these cases archival access is not a major problem.

Evaluation of use and user satisfaction is one of the challenges many consortia are currently facing. When consortia have to cut collections, they need to have the tools to do it properly. Usage information is one tool, user satisfaction information another. Both quantitative and qualitative information should be used when analyzing the collection and its usefulness to users. Evaluation of use and user satisfaction also helps to show the impact of content provision on society.

Cooperation has supported libraries in Europe in developing their consortia as well as their licensing activities. OhioLINK has been a model for consortia activities in Greece, and Nordic cooperation a model for the South European Libraries Link. All European consortia have gained from the activities of ICOLC, and eIFL has been building bridges between library consortia all over the world.

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APPENDIX

Web site addresses for consortia discussed in this article.

BIBSAM: <http://www.kb.se/bibsam/>

CHILL: www.chill-london.org.uk

CURL: www.curl.ac.uk

Eduserv Chest: www.eduserv.org.uk

eIFL: <http://www.eifl.net>

FinELib: <http://www.lib.helsinki.fi/finelib/>

HEAL-link: http://www.lis.upatras.gr/LIS/HEAL-L_EN.shtml.

ICOLC members: <http://www.library.yale.edu/consortia/icolcmembers.html>

ICOLC principles: <http://www.library.yale.edu/consortia/2004currentpractices.htm>

JISC: <http://www.jisc.ac.uk/>

LIBER-principles: <http://www.kb.dk/liber/>

NEICON: <http://www.neicon.ru/>

NoWAL: www.nowal.ac.uk

SELL (South European Libraries Link): <http://www.heal-link.gr/SELL>