

CONSORTIUM *of* EUROPEAN RESEARCH LIBRARIES

STRATEGIC PLAN 2010-2015

Executive Summary

CERL's original aim was to improve access to the scattered early printed heritage of Europe, by collecting widely distributed, highly specialized and often hidden bibliographical information in one joint database and providing tools to facilitate use of bibliographical resources.

With the evolving information landscape came the realisation that in addition to the role of data provider, CERL has to adopt the role of service provider. In this new position, a database such as the HPB comes to function as a node in an information network from which data on printed and written heritage materials can be filtered and aggregated. The CERL Portal for Manuscripts and Early Printed Materials was set up with this development in mind.

The mission of CERL can now be summarized as:

- supporting the study of the book heritage of Europe by developing services that support integrated access to high-quality data;
- developing and maintaining a suite of sophisticated tools appropriate for the study of printed and written heritage materials of Europe by pooling resources and expertise;
- contributing to joint initiatives for the development of the digital infrastructure for the humanities, including the development and implementation of standards, especially those that facilitate interoperability

By 2015, CERL will offer sophisticated tools and authoritative services for use in modern research infrastructures employed by researchers, and will function as a point of focus for all librarians, researchers and data providers working with the European book heritage (until c. 1850).

This Planning strategy shows the ways to reach these goals.

0. Introduction

The Consortium of European Research Libraries (CERL) has, since its foundation in 1994, provided services for both its member libraries and the scholarly community. CERL now wishes to concentrate on expanding the services which CERL member libraries have been providing to the research community for more than a decade, by taking the step from the virtual collection that the HPB represents, to preparing a point of entry which combines this resource with a wealth of related materials by third parties, as well as specialist tools.

The archaeology of objects, their distribution and their use gives insights not only into the history of ideas but of their development, distribution as well as into the knowledge and the horizon of experience of persons, groups and nations and their development. It is abundantly clear that these, relatively new, research interests can not be answered with the aid of traditional bibliographic descriptions alone. Additional information about physical aspects, bindings, provenance but also statistical data about the number of issues printed or copies held in different libraries are of great importance. Librarians and academics can make full use of the expertise accumulated by each group, by creating integrated access to the data sets of which they are the stewards (catalogues, bibliographies, and digital materials for libraries, and databases, statistics, and research results for researchers). A new cooperative effort is needed to work towards research environments that allow researchers to ask new research questions, and to answer them

by virtue of the connections between data that were hitherto not available. In the years to come, CERL wishes to facilitate this type of research in the field of book history.

The creation of a set of interrelated tools and services underpinning this integrated access has to be a collaborative effort. Libraries have to develop tools and services for use in research environments in close cooperation with the research community. They also have a role to play in developing and maintaining standards to ensure the interoperability of the datasets from different resources. In the coming years, CERL intends to act as a platform for libraries, to stimulate for the development of services and tools, the development and implementation of standards to support interoperability, and act as a point of focus for all librarians, researchers and data providers working with the European book heritage (until c. 1850).

1. About the Consortium of European Research Libraries (CERL)

The Consortium of European Research Libraries (CERL) is an active community of more than 190 libraries with notable holdings of early printed material. In close relationship with the community of scholars and researchers in the field of the European printed and written heritage, CERL has, since its foundation in 1994, provided services for both its member libraries and the scholarly community.¹

The Consortium, was established on the initiative of leading research libraries in Europe, and had as its first objective to bring together all information on books printed in Europe during the hand-press period (c. 1450 – c. 1830) in the Heritage of the Printed Book Database (formerly the Hand Press Book Database (HPB)). More recently CERL developed the CERL Thesaurus and the CERL Portal.

The **HPB Database**, which is hosted by OCLC (Dublin, OH), is the most comprehensive bibliographical resource on European book production during the time period from 1450 to c. 1830, bringing together catalogue records from major research libraries in Europe and North America covering items of European printing of the hand-press period.²

The **CERL Thesaurus** was developed to address the particularly European issue of variant forms of place names and personal names in the period of hand press printing, including variant spellings, forms in Latin and other languages, and fictitious names. This unique resource brings together authority information used in libraries and other cultural heritage institutions by mapping identical entities and linking related ones. More recently, a **Provenance** section was added to the CERL Thesaurus.³

The **CERL Portal: Manuscripts and Early Printed Materials** provides access to distributed databases that can be accessed remotely of manuscripts, printed works, photographic materials and other documents via harvesting and additional Z39.50 searches.⁴

Through its individual members, CERL combines specialist knowledge on bibliographical description of older printed works with a wealth of background information and contextual knowledge through its connections in the field. As one of the pioneers using web-based interfaces to make distributed bibliographical sources available to researchers, CERL moreover has the experience and the know-how to apply new technology effectively.

¹ A list of CERL members can be found at: http://www.cerl.org/web/en/membership/list_members

² For more information about the HPB please check: <http://www.cerl.org/web/en/resources/hpb/main>). The HPB may be accessed for information retrieval and downloading by CERL member institutions, their staff and users; restricted information from the records in the HPB can also be retrieved through the CERL Portal.

³ For more information about the CERL Thesaurus: http://www.cerl.org/web/en/resources/cerl_thesaurus/main; it is freely available at <http://cerl.sub.uni-goettingen.de/ct/>.

⁴ For more information about the CERL Portal: Manuscripts and Early Printed Material: http://www.cerl.org/web/en/resources/cerl_portal; it is freely available at <http://cerl.epc.uu.se/sportal/>.

The resources CERL has developed over the years provide one common access point to data on materials for the study of the history of the book that is held by research libraries all over Europe. These initiatives are in line with the development of the research infrastructure over the past decade, towards aggregation of data from various sources to subject-based platforms. The step from the virtual collection that the HPB represents, with its accompanying tools, to preparing a point of entry to related materials by third parties opens possibilities for expanding the services which CERL member libraries have been providing to the research community for more than a decade.

As the European network of expertise on printed and written heritage materials CERL has an eminent position to build onto existing resources to create a comprehensive suite of tools and services for every researcher interested in the study of the European book heritage. As the organisation that has made this specialist area of library services its own, CERL moreover has the responsibility to work with its member libraries to meet requirements of their future users. There is no other (European) initiative that can or will provide the sophisticated level of access that study of these historical materials requires. By combining its knowledge of the needs of traditional scholarship with its expertise of the potential of new technology CERL can make a unique contribution to the research infrastructure of the future.

2. CERL's mission and vision

CERL's original aim was to improve access to the scattered early printed heritage of Europe, by collecting widely distributed, highly specialized and often hidden bibliographical information in one joint database and providing tools to facilitate use of bibliographical resources.

With the evolving information landscape came the realisation that in addition to the role of data provider, CERL has to adopt the role of service provider. In this new position, a database such as the HPB comes to function as a node in an information network from which data on printed and written heritage materials can be filtered and aggregated. The CERL Portal for Manuscripts and Early Printed Materials was set up with this development in mind.

The mission of CERL can now be summarized as:

- supporting the study of the book heritage of Europe by developing services that support integrated access to high-quality data;
- developing and maintaining a suite of sophisticated tools appropriate for the study of printed and written heritage materials of Europe by pooling resources and expertise;
- contributing to joint initiatives for the development of the digital infrastructure for the humanities, including the development and implementation of standards, especially those that facilitate interoperability.

CERL has established itself as the authoritative organisation in Europe for bibliographical information on early printed works. From its responsibility for providing access to resources on printed and written heritage materials, CERL will these coming years focus on the development of integrated access to catalogue records and bibliographical tools, in combination with access to comprehensive object-oriented information from a variety of resources from third parties. The aim is to combine CERL resources with other relevant resources through metasearch applications serving as authoritative tools for access to early European book material (focusing on material before c. 1850). Metadata on printed or handwritten objects, will be searchable in combination with the material aspects of the production and the trade of historic written or printed objects (e.g. resources on book-bindings, watermarks, printers' devices, provenance evidence), the cultural aspects of using the book (e.g. reading, collecting, social networking) and the intellectual production (writing, editing, translating etc.) of books. In addition to a stand-alone service with its own web interface and tools, called CERL Research Toolbox, a complimentary API will be developed which will trigger access to the same website from other information systems, such as e.g. Europeana.

Given CERL's strong position in the field, its close ties with the scholarly world, and its technical know-how, it can be assumed that third parties will be happy to be associated with such an endeavour. In a networked environment, the whole is usually more than the sum of its parts, and that goes for this situation as well. Bringing together materials from various sources will increase visibility for all and forge new connections that may give rise to new research questions. Combining these resources with modern technologies for sharing information and collaboration on the web will result in an environment in which researchers can not only locate and study, but also work with materials from many different sources. By offering tools for direct interaction, the data presented can be enriched by contributions from researchers, from simple tags and ratings to new data collections and texts.

To summarise the vision for the coming years:

By 2015, CERL will offer sophisticated tools and authoritative services for use in modern research infrastructures employed by researchers, and will function as a point of focus for all librarians, researchers and data providers working with the European book heritage (until c. 1850).

3. Target audiences

3.1. CERL Members

Through CERL, its members have an opportunity to together define how Special Collections are to be represented at the European level and how library services in this field can be improved. As a federation of content holders, libraries can through CERL harness skills and resources that will enable them meet current and future needs of researchers and place their holdings in an international show-case environment that will increase the visibility and impact of their holdings. As a group, CERL members can develop, introduce and 'enforce' any number of standards, for example standards to support the exchange of data and its search and retrieval, but also standards for mounting exhibitions, or setting up a European user identity scheme.

Being a member of CERL means being part of a strong and active network with a specific aim. This network will both be strengthened and expanded through CERL's collaboration with LIBER, through the role that CERL will play in both the LIBER Steering Committee on Heritage Collections and Preservation and the LIBER/CERL Working Group for Heritage Collections, and CERL participation in international projects with strong partners such as The European Library.

Within the community of those working with historical book collections, we can develop shared policies and standards, make knowledge and expertise which exists in one partner library available to another, prevent duplication of effort and support and encourage collaboration.

CERL trusts that it will keep and gain members by offering libraries an environment to showcase their holdings in combination with other relevant data sets in a manner they could not construct as an individual library. As membership is open not only to libraries, CERL will, as before, be flexible in accommodating organisations other than libraries (e.g. antiquarian booksellers, library schools, Museums of the Book, etc.) into the CERL fee and organisational structures.

3.2. Research community

CERL's aim is to aid its members in their communication with the scholar and making their holdings available to the researcher in a high-quality, authoritative context. Equally, we wish to stimulate integration of scholarly research into the libraries.

CERL as an organisation aims to develop a symbiotic relationship with various communities of researchers. CERL thereby gains visibility and closer connection with Centres and Projects, advice from specialist users, and an increase in membership through special membership of the centres or the Universities and Libraries they are based in.

In turn, CERL would offer the projects visibility, the opportunity to contribute views and recommendations to CERL, the opportunity to jointly develop research tools and/or new research projects with CERL member libraries, and a platform for presenting research results. The CERL Secretariat has developed a detailed plan of action, including a list of research organisations with whom it wishes to establish contact (see appendix D).

Initially (until the CERL Research Toolbox takes over that role), CERL's website is to be used as a tool to bring together information, resources, links, and where required wiki-like facilities, on designated CERL web pages for special interest groups, such as e.g. incunabulists and scholars working on book bindings.

3.3. Research Libraries

CERL wishes to assist its members in defining how Special Collections can best be represented at the European level and how library services in this field can be improved. To increase the effectiveness and impact of CERL endeavours in this respect, it has identified LIBER as a strategic partner in stimulating and coordinating European initiatives in the field.

A working group examining in the detail the scope for closer collaboration between the two organisations has proposed that co-operation between CERL and LIBER is to take place (a) at a strategic level; (b) through the LIBER Steering Committee on Heritage Collections and Preservation, which LIBER implemented following a discussion of its new Governance proposals with LIBER Libraries at its Meeting of Participants in July 2009; and (c) at the level of both Secretariats. The proposal has been ratified by both organisations.

CERL has agreed to take on the role of Secretary to the Steering Committee (the first term runs until 2011). Priorities for the Steering Committee and its working groups include

- *Mission:* To ensure that LIBER develops as an effective platform at the European level for the coordination of policy and practical action in the fields of heritage collections and preservation, involving as much enterprise and expertise as possible from as wide as possible a range of European countries and institutions
- To identify the opportunities for practical cooperation with other international organisations working in the field (incl. ARL, OCLC Research, IFLA RBMS)
- To ensure that communication channels in the fields of heritage collections and preservation are open and working
- To consider the need for the development of standards and to stimulate 'best practice' in the fields of heritage collections and preservation at the European level and to take measures to meet those needs
- To consider the need for the development of training opportunities in the fields of heritage collections and preservation at the European level, and consider issues such as professional development, international accreditation
- To organise conference(s) and/or workshops and/or training events in the fields of heritage collections and preservation jointly or separately in 2011 – preferably in conjunction with events on the international agenda (e.g. LIBER, CERL, or other relevant meetings, workshops and conferences)
- To develop a particular focus on building dialogue with colleagues in central and Eastern Europe in line with LIBER policy.
- Partner in discussions about funding proposals / projects (Need a survey of what projects are currently undertaken/planned and how they fit together)
- Communication partner on EU level (currently role mostly taken on by CENL/Europeana)

The Steering Committee will oversee the work of two Working Groups, one on Preservation and the other on Heritage Collections. The latter is a shared LIBER/CERL Working Group, with a CERL Secretary and strong representation of CERL members in the Working Group.

Participation in this Steering Committee and the Working Group for Heritage Collections increases CERL's visibility and authority as the host of services offering librarians and researchers indispensable tools to assist them in their professions as well as a communication platform that supports collaborative undertakings. It will

increase the network of Heritage Collection specialists that CERL has access to, and it will allow CERL to work with librarians to identify trends, opportunities, and needs.

4. The CERL Research Toolbox

Scholars and researchers from many different subject areas - among them book history, political and social history, art history, ecclesiastical history, philosophy, etc. – are interested in books not only for their intellectual content; in many cases they study the information objects themselves as sources of evidence. Books, within their context of other assets of Europe's cultural heritage, offer in-sights into collective thought processes, historical developments and actions, socio-cultural phenomena, economic factors affecting evolving technologies and the originality and flexibility of European thinking. As the European written and printed heritage has been dispersed all over Europe and worldwide through migration, the book trade, belligerence and war booty, it currently cannot be displayed adequately in its entirety. The content of the bibliographical descriptions brought together in the Heritage of the Printed Book Database, supported by the CERL Thesaurus, now needs to be placed in the context of other relevant resources with details on provenance, binding, use, typefaces, watermarks etc.

As with its other services, CERL will not produce content, but aims to harvest, collect and connect specialised research data created by libraries, institutions and the research community. Creating international and interdisciplinary central access to book history materials is of necessity a collaborative effort, in which CERL would adopt a coordinating role. To ensure that researchers have access to a large body of material from the start of the project, collaborators who are able to provide access to large resources, such as b2i, The European Library, and Europeana will be sought out from the onset (see also Appendix A).

In this context, convenient retrieval entails much more than simply providing access to content. CERL aims to integrate resources through accurate linking of information objects. Careful attention will be paid to the analysis of the information resources, as well as the mapping of information held in those databases, in order to arrive at a good level of semantic interoperability. Integrating these heterogeneous sources requires a more sophisticated approach to distributed searching than the traditional meta search that is appropriate for most portal applications providing access to more homogeneous metadata. The vast amount of metadata available and the divergent structures in which it exists will require a search approach that combines methods of query routing (selecting the resource most appropriate for the particular subject, selecting the proper access points and search terms for a particular resource and combining resources in a way that reduces the retrieval of duplicate information objects) with techniques of user interaction (relevance feedback and assisted reformulating/specifying of a query). With the CERL Thesaurus, a tool which facilitates identifying and mapping of name forms for persons, printing houses, corporate bodies and places, is readily available. It should be used as the starting point for the development of query routing and user interaction facilities.

In order to ensure the maximum uptake of the CERL services, a website with CERL branding, appropriate interface and tools will be developed. However, additionally, CERL will offer a standardised machine accessible interface⁵ which can be integrated into other information systems. Essentially, from a search result in a non-CERL service, a user can investigate whether the CERL Research Toolbox give access to new, related information. The user will be able to navigate the CERL Research Toolbox's network of objects and associated entities - including the information system, e.g. Europeana, they started from (for a detailed description of this functionality see Appendix B: EC/2009/10).

For the users, the main, but mostly invisible, benefit of the CERL Research Toolbox will be the careful data analysis and data mapping. This, combined with a system of query routing will deliver relevant search results from a wealth of heterogeneous data sources. The search results will be made visible as a network of dependencies for the user to explore in greater detail. A variety of tools to adapt the data to a user's specific research needs (export, tag, annotate, share, rank etc) must allow the user to shape their own personalised work environment. Ultimately, the CERL Research Toolbox is to stimulate social networking and

⁵ e.g. SOAP, SRU, etc.

collaboration, where users will share the content they generate with the entire community, thereby jointly creating an enhancement of the data, which benefits all.⁶

CERL is both able to provide the technical solutions for a creating a toolbox for book history and to secure the intellectual input on a high professional level, incorporating more and more specialist groups. CERL libraries are in a strong position to support a process of analysis, harmonisation, mapping and semantic enrichment, which ultimately should lead to the enhancement of the metadata, which in turn will hopefully give a new impulse to the study of book history, allowing users to formulate and answer questions that could not be tackled before.

CERL is concerned that new research data, resulting from projects or brought together by individual researchers, should not be lost to future generations of researchers. Although, in exceptional cases, CERL will offer facilities for storing research data, in most cases it will seek appropriate partners to undertake longer-term curation of research data. Such partners can include organisations that work together in DRIVER⁷ or e.g. DANS in the Netherlands,⁸ Recolecta in Spain⁹ and the Arts and Humanities Data Services in the United Kingdom.¹⁰ In the main, CERL will focus, not on archiving the data itself, but on creating convenient retrieval of data wherever it is hosted.

5. CERL Services as building blocks of the CERL Research Toolbox

5.1. Heritage of the Printed Book Database

The CERL Research Toolbox will give access to electronic resources, which could easily include the bibliographic records held in library catalogues that are the core content of the Heritage of the Printed Book Database (HPB). There are a number of important reasons for continuing to maintain and expand the HPB in the coming years, and positioning it as a corner stone of the CERL Research Toolbox.

In addition to bibliographic records publicly available on the internet, the HPB contains sizeable contributions that have been especially converted for inclusion in the HPB, and are not available elsewhere. In the coming years, CERL intends to expand and strengthen the coverage of the HPB (for example, by including more such specially prepared datasets; see also appendix C).

Inclusion of the HPB into the CERL Research Toolbox is facilitated by the fact that the HPB brings together electronic descriptions of early printed material in one format and in one integrated system, with extensive indexing that is systematically applied. This, of course, has the immediate benefit that users of the HPB in the OCLC environment do not have to learn the workings of a variety of internet library catalogues but can access one system and be relatively certain that they will retrieve all HPB data relevant to their search. In the CERL Research Toolbox it will provide a firm basis for search and retrieval, both in the HPB and other resources.

Scholars typically wish to have some form of electronic access to the books described in the HPB. Rather than including URLs (links which, over time, frequently are “broken”) in the bibliographic records, this is more efficiently achieved by aligning HPB records with digital surrogates presented in other resources, through the CERL Research Toolbox.

In recent years, CERL has endeavoured to increase the visibility of the HPB, so that more researchers would include this resource in their research. The full records are available to CERL members and OCLC subscribers via the OCLC platforms FirstSearch, Connection and, more recently, WorldCat.org. An

⁶ The enrichment of data will be a side effect of CERL offering an extremely useful work environment for researchers that they are happy to use for their own benefit.

⁷ <http://www.driver-repository.eu/>

⁸ <http://www.dans.knaw.nl/nl/>

⁹ www.recolecta.net

¹⁰ <http://ahds.ac.uk/>

abbreviated view of HPB records is freely available through the CERL Portal, and in the years to come, CERL hopes to see the introduction of an abbreviated display of HPB records through WorldCat.org to non-registered users world-wide, as well.

In the coming years, CERL wishes to strengthen its partnership with OCLC, and explore how the records for European early printed materials in WorldCat can be presented more prominently together with HPB data. This could for example be achieved by presenting records in thematic sub-sets, such as history of medicine, philosophy, religion, etc.

5.2. CERL Thesaurus

The type of data included in the CERL Thesaurus, the new system architecture with its modules which will be introduced shortly, and tools that have already been tried and tested in the CERL Thesaurus environment,¹¹ make the CERL Thesaurus the back-bone of the CERL Research Toolbox. It will function as a basis for mapping of data, as a test bed for further developing a modular presentation of search results, and a platform for the introduction of new tools.

The CERL Thesaurus currently contains variants for names of printers, personal names, corporate bodies and place names, which will continue to be expanded in the years to come, by adding authority files and data from bibliographical records. The linking out to various resources (i.e. Edit16, local OPACs, printers' devices, and watermarks) will continue, and further resources will be added as they become available. To aid retrieval in the CERL Research Toolbox the number of categories in the CERL Thesaurus can be expanded, or, where that is not appropriate, the technique employed can be used to create new thesauri (examples include a thesaurus for the traditional terminologies for physical genres of manuscript material (e.g. codex, archive, map, photographs, score, and orientalia), or a thesaurus for Uniform Titles).

Recently, the Data Conversion Group (DCG) has begun the implementation of a new web interface for the CERL Thesaurus. A first draft of it has been made available to the members of the ATG and the EC on the CERL Website.¹² It has adopted a new system architecture in which the communication with the database, the search logic and the presentation logic are strictly separated. Thus, each part can be maintained separately or substituted if necessary. This allows easy reuse of the application for other databases and the CERL Research Toolbox. The presentation of CT records and result sets follows a modular approach, which, in future, will facilitate adding further information objects (e.g. a search in the HPB or a local OPAC using the name forms of a CT record, searching for information on an entity in Wikipedia or similar resources etc.) without touching the existing presentation routines.

CERL recognises that the CERL Thesaurus may be useful to other parties for supporting retrieval in their own environments. To this end, it has developed SRU¹³ access to CERL Thesaurus data, which is freely available to CERL members. Other parties, (e.g. research projects, libraries or commercial agents), can contact the CERL Secretariat for further information on conditions of use.

5.3. CERL Portal: Manuscripts and Early Printed Material

The resources that are currently brought together in the CERL Portal: Manuscripts and Early Printed Materials (CP) are an important element of what will be available through the CERL Research Toolbox. The current CERL Portal does not lend itself to being scaled up to become the CERL Research Toolbox. The question then arises whether the CERL Portal for Manuscripts and Early Printed Materials should continue to be developed and maintained in parallel to the CERL Research Toolbox or should be discontinued. The proposal is to continue the CERL Portal for Manuscripts and Early Printed Materials but to extend its

¹¹ An example of such a tool is the annotations facility which allows users to enhance CERL Thesaurus records. The comments are visible to all users of the CERL Thesaurus.

¹² <http://thesaurus.cerl.org/ct/search.pl>

¹³ Search/Retrieval via URL is a standard XML-focused search protocol for Internet search queries, utilizing CQL (Contextual Query Language), a standard syntax for representing queries:
<http://www.loc.gov/standards/sru/specs/cql.html>.

coverage to become a union catalogue of all materials in Special Collections, including future digital archives, films, photos, etc.

Currently, libraries tend to distinguish their special collections by type of material (i.e. maps, manuscripts, photographs). This is not necessarily a meaningful distinction for the scholar, who would welcome a resource where all unique items are retrievable side-by-side. Libraries may at times struggle with the describing and cataloguing some of the objects they have in their Special Collections. In order to underpin retrieval in an electronic environment, and in collaboration with LIBER's Steering Committee on Heritage Collections and Preservation, libraries could seek assistance from the Museum and/or Archive communities in curating their Special Collections. Through the CERL Portal, CERL is able to assist libraries to devise a better mode of access to their unique materials, and provide them with a platform to give greater visibility to their Special Collections.

All unique items that libraries define as belonging to their Special Collections, i.e. not just manuscripts, early printed materials, and autographs, could find a place in the CERL Portal, offering appropriate search and retrieval facilities. As is currently the situation, the full detailed display of the object would be through the interface of the institution holding the digital object. Manuscripts and early printed materials before c. 1850 that are the remit of the CERL Research Toolbox would be accessed there, and benefit from the CERL Research Toolbox's in-depth analysis, built-in mapping, and rich context of related resources.

5.4. Provenance

CERL will continue to support the provision of resources for the development of the growing interest in the field of provenance studies. Curwen and Jonsson define provenance as 'any piece of information that may bear witness to the itinerary of a book' and list 'names, coats of arms, dedications, initials, dates, prices numbers or codes, booksellers' signatures, margin notes, bindings, etc.' as examples of provenance information.¹⁴

The programme of adding files of provenance data from special collection catalogues to the CERL Thesaurus, as well as editing and de-duplicating the resulting CERL Thesaurus entries will continue. The CERL Seminars, publications and website will be used to encourage participation from scholars and institutions in collating and enhancing provenance information and to act as a communication platform for providing information about new insights, publications and on-line resources. In order to support accurate retrieval, CERL will also continue to seek to influence developments in the recording of provenance data in library catalogue systems, including appropriate enhancements of relevant MARC fields. It will be investigated how the suggestions for recording provenance information made in the paper by Curwen and Jonsson (see above) can be promoted and expanded, thereby possibly creating a de-facto standard.

The successful 'Can you help?' page on the CERL website,¹⁵ which is a forum for curators and scholars to share expertise on practical problems of identification, interpretation, localisation, etc, will be developed into a wiki-like facility, where scholars can upload their own queries, accompanied by a digital image of the item they seek clarification on, if that is available. Currently most queries are about bindings, but requests for assistance on deciphering owners' marks, autographs, and annotations are equally part of the remit of this service.

In the context of the CERL Research Toolbox, a provenance module is to be developed, containing a thesaurus of provenance data based on the provenance data currently in the CERL Thesaurus; a system which allows individuals to contribute new records and annotations to this thesaurus; and a module which will assist users in identifying existing web resources (i.e. an integrated environment for information replacing the

¹⁴ Tony Curwen and Gunilla Jonsson: 'Provenance and the Itinerary of the Book: recording provenance data in on-line catalogues.' In: *Imprints and owners: Recording the cultural geography of Europe. Papers presented on 10 November 2006 at the CERL Seminar hosted by the National Széchényi Library, Budapest*. Ed. David J. Shaw (London: Consortium of European Research Librarians, 2007), p. 32.

¹⁵ http://www.cerl.org/web/en/resources/provenance/can_you_help

current CERL web pages in the Provenance section). In the case where a query in the 'Can you help' facility has been resolved, an automatically generated record should be added to the thesaurus of provenance data.

The Provenance Working Group has been asked to advice on the development of specialist search facilities in the CERL Research Toolbox which correspond to the needs of researchers in the field.

5.5. CERL Metadata Aggregator

The CERL Metadata Aggregator (CMA) can be used to collect metadata for a) the CERL databases (e.g. the HPB and CERL Thesaurus), b) the central index of the CERL Research Toolbox, and c) a central repository with an OAI interface (e.g. for contributing to Europeana).

The CMA allows registered institutions to upload their metadata in an individual format, which is then converted into an abstract format that provides for export of this data in the required output format via an OAI compatible interface.¹⁶ The conversion module is extremely flexible and allows the unlimited integration of individual conversion routines for serving any input format as well as any thinkable output format. In addition to institutions uploading their metadata, the CMA can also receive data through OAI harvesting or other means of electronic data exchange. Further means of gathering metadata online, e.g. via a regular Z39.50¹⁷ or SRU request could be investigated.

The CMA offers a wonderful opportunity to enrich metadata, which may be of great importance for the CERL Research Toolbox. For example, if metadata for a collection of digital surrogates of printed books is processed and this metadata does not comprise any subject indexing (subject headings, classification etc), it can be augmented on-the-fly with data from a library catalogue which *does* contain subject headings for the same items.

6. Communication and networking

6.1. Introduction

A range of communication activities will be undertaken to support development of the CERL Research Toolbox: on the one hand to stimulate use of services offered by CERL, and on the other to encourage contributions to these services from libraries, researchers and data providers.

To broaden the base for its services, CERL should make sure it is widely known as the platform for information on early book culture and is regarded as a reliable and valuable partner. Efforts to involve the largest number of institutions with relevant collections, so as to extend coverage and maintain a healthy membership, will have to combined with activities to promote use of CERL resources, as increasing use and expanding resources reinforce one another. A thriving community makes CERL moreover an attractive partner for projects and creates possibilities for sponsoring.

6.2. Tools and channels

The web offers cheap channels for distributing information that enable even organizations with few staff to reach their audience. Given the unexpected ways in which things proliferate on the web and information trickles down to niche-groups all over the world, a good strategy for web communication can make all the difference. Combining dissemination over the web with targeted mailings of print materials to select groups and live presentations at workshops and conferences offers an effective and manageable communication package.

¹⁶ <http://www.openarchives.org/OAI/openarchivesprotocol.html>

¹⁷ <http://www.loc.gov/z3950/agency/Z39-50-2003.pdf>

6.2.1. Website

The CERL website should be among the first sites to come up in any web search for 'early printed books' and similar terms. At the moment this is not the case, so some work will have to be done on metadata and descriptive information to make the site more visible.

Another way to make the site more visible is to have a lot of relevant text that is seen by search engines so that the site will be found and visited more often. One important improvement would be to place the CERL Papers of the annual seminar on line as PDFs. Not only will this increase visibility of CERL and its website for search engines, it will also increase consultation, make the papers better known and have a positive effect on sales.

For CERL to function as a valuable partner for researchers, information professionals and data providers with an interest in the history of the early printed book, its web site should reflect commitment to the field and awareness of the concerns of researchers. Without going overboard on adopting new gadgets, the site will not just present information in one direction but be open and encourage responses from users and colleagues.

6.2.2. (E)-mail lists

The mailing list of addresses for brochures, conference announcements etc will continue to be maintained carefully and will be expanded in new directions - but not in a major way. It will be more efficient and effective to communicate with professionals through e-mail lists or forums of which they are members. Most researchers are for instance members of scholarly societies that often maintain e-mail lists or discussion forums.

By subscribing to such services, more than is the case to-date, two important things can be achieved: it is informative to follow the concerns of the community, and the visibility of CERL resources can be increased by occasionally pointing participants in the right direction. Also announcements of publications, seminars and studies as well as mini-questionnaires asking for information or opinions, can be distributed through these channels (usually at no further cost) by posting them as participant or keeping the editor of a newsletter informed. This may result in a very wide proliferation as messages are copied from one list/newsletter to the other. For CERL this is important given the fact that those interested in resources on early book culture may 'hide' in a variety of disciplines that CERL cannot possibly reach directly.

The investment in time is relatively mild and the information will travel quickly far beyond the CERL network. Once a number of relevant lists/sites are identified it is relatively easy to identify more related ones.

6.2.3. CERL Newsletter

The *CERL Newsletter*, whether on paper or by email, periodically informs the CERL network and helps to maintain contacts. The CERL network is made up of members and partners that each provide a link with their own (national) networks. It is important that the crucial role of members to connect different networks is recognized and that they act as first contact for research groups or professional societies in their country. Members are to be encouraged to supply information on communication channels of their constituencies, so that key people in these networks can be informed of CERL activities.

Library and information professionals will be informed on CERL activities at workshops and conferences. As before, every opportunity will be taken to present CERL activities at professional meetings. Collaboration with LIBER will facilitate a wide dissemination of announcements of events and publications in library circles.

7. Funding

CERL is a membership organisation. The ongoing support of the members ensures a stable financial basis, and the basic income is sufficient for expenditure on the maintenance and continued development of the current package of services. However, as witnessed by this Strategic Plan, CERL has the ambition to expand and will therefore need to augment its income. A number of approaches, such as recruiting more members,

bringing in project funding, licensing data, and creating an advertising/sponsorship programme will run simultaneously.

7.1. Recruiting new members

CERL has a Membership Promotion Plan that is continually updated, and discussed by the Executive Committee at each of its meetings (for 2010, see also FM/2009/9).

7.2 (EU) project funding

In principle, CERL is interested in participating in formulating EU funding proposals, but will carefully balance the following:

- will the project allow CERL to realise one or more elements of the strategy outlined above,
- how strong are the partners, and, very importantly
- how much matching funding is required.

With these considerations in mind, CERL will participate in consortia preparing a number of funding proposals.

INFRA-2010-1.2.3 (Call 7)

Deadline 24 November 2009, partners include the KNAW (the Royal Netherlands Academy for Arts and Sciences), the KB (also representing TEL), the Max Planck Institute the Academies in Budapest and Warsaw, University College London and the Universities of Birmingham, Utrecht and Amsterdam. This will allow CERL to benefit from the user analysis that will take place in the context of the project, for form and maintain user panels, and to make use of tools develop in the context of other Humanities research communities. It will also allow CERL to create integrated searching of the CT/HPB/CP, and some other data resources – i.e. it will lay the fundament for the CERL Research Toolbox.

CIP, Challenge 4, Objective 4.1: 'Digital Libraries and Preservation', ICT Call 6

Call opens 24 November 2009 and closes 13 April. This will be an extension of the Call 7 proposal, and will be able to include development/research elements, such as visualization of search results. This will allow CERL to add further resources and tools to the CERL Research Toolbox, in the context of work done for other Humanities research communities.

CIP Objective 2.2 proposal

Call will close early June 2010. Partners will be TEL/CENL, LIBER and CERL. CERL involvement revolves ensuring that the meta data recorded for the contributions to TEL is favourable to its strategic aim of providing integrated access to a great variety of resources, and to act as an aggregator for data into The European Library.

7.3. Licensing CT data

The following licensing structure has been adopted

		Refund DCG- costs for producing extraction	Initial fee	Yearly fee	Severance pay	Comments
CERL Members	e.g. KB Copenhagen, SUB Göttingen, NL Hungary	Yes	No	No	No	Should at any time the data be used in a commercial environment, the model below will be applied
Short-term (EU-funded) projects	e.g. IMPACT	Yes	to be negotiated,	No	No	Should at the end of the project, the data continue to be used in a commercial environment, the

			of data		model below will be applied
			encouraged		
(large)					
Commercial organisations	e.g. Pro-Quest	No	€ to be negotiated	€ to be negotiated	€ to be negotiated

7.4. Advertising

CERL can sell advertising space on the CERL website and in the CERL Publications, and can seek sponsorship for its annual seminar and the bookbinding workshop.

8. Action plan for 2010

The development of the CERL Research Toolbox will see a phased approach, partly dependent on project funding. In the meantime, CERL activities will need to be progressed as well. In the financial year beginning 1 October 2009 CERL has not yet received project funding; any and all development on the part of the CERL Research Toolbox will therefore have to be low-budget.

The year will be used for **network building related to the CERL Research Toolbox**

- stimulating collaboration in the field of bookbinding (meeting with SB Berlin, and a workshop for invited guests in Spring 2010, in liaison with the LIBER WG on Preservation)
- preparing the ICT Call 6, and warming the partners to our ideas for a CERL Research Toolbox
- preparing the Objective 2.2. proposal, liaising with CERL members, pressing the idea of CERL as a meta data aggregator and a keeper of standards
- foster closer relationship with the research community (see appendix D)

and **networking with other library organisations**

- strengthening the relationship with OCLC
- help shape the LIBER Steering Committee on Heritage Collections and Preservation
- help shape the LIBER/CERL Working Group for Heritage Collections
- foster relationships with The European Library and the EDL Foundation / Europeana

and **finance seeking**

- recruiting new members
- preparing the ICT Call 6
- preparing the Objective 2.2. proposal
- promoting the sales of the CERL Conference Proceedings
- promoting CT licenses
- seeking advertisers

and **preparing the ground for the CERL Research Toolbox**

- further elaboration of the CERL Thesaurus website with functionalities that can also be used in the CERL Research Toolbox
- collaboration with N. Palmer and C. Dondi on the front of their incunabula database
- define functional requirements
- define the modules and the order in which they may be introduced
- discussions with data providers that would wish to contribute to the CERL Research Toolbox

and **maintaining and further developing existing CERL Services**

- implement the HPB development plan
- implement the CERL Thesaurus development plan
- implement the CERL Portal development plans
- implement the Provenance development plan
- devising a new workflow for updating HPB records
- collaboration with BAV regarding its incunabula collections

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APPENDIX A – ABOUT THE CERL RESEARCH TOOLBOX

1. Building up the CERL Research Toolbox

In addition to the contributions that CERL can make to the CERL Research Toolbox, three other types of data can be brought in: resources built up by others, user generated content and data that is built up together with collaborators, in shared projects stimulated (or perhaps coordinated) by CERL.

1.1. Data contributed by data collectors

An important contributor to the CERL Research Toolbox, in particular because of the second-to-none collection of digital materials it brings together is **Europeana**.¹⁸ Through Europeana, the European Digital Library Foundation (of which CERL was a founding member) brings together digital materials held in the library, museum, archives and audio-visual sectors. For CERL, the importance of this large scale activity, which draws much EU funding, lies in the wealth of material it brings together from CERL members and non-members alike. CERL has an important role to play in ensuring that the material relating to the field of the European printed and written heritage which is held in Europeana is accessible to scholars and researchers and especially that it is presented in the context of other electronic resources that further illuminate these findings. To facilitate retrieval CERL has a role to play in ensuring that appropriate metadata accompanies the material that is contributed to Europeana and that the metadata held in Europeana can be employed for search and retrieval. Finally, CERL has an interest in ensuring that sufficient material of interest to our users is present in Europeana. It goes without saying, that CERL has the same vested interests in The European Library.

The German resource **Buch, Bibliothek und Information (b2i)**,¹⁹ which in itself provides access to a large number of electronic resources, has shown great interest in the CERL proposal to develop a CERL Research Toolbox, and would be a welcome partner both for their technical knowledge and for the riches of data they could provide. Finally we have to realise that certain nations have, or have plans to, develop national portals for book history. CERL would be very interested to work with the Dutch portal, **Bibliopolis**,²⁰ for their content and the experience they have gained in developing useful tools for researchers, as well as **MOKKA-R** (focussing on the Carpathian Basin). We need to enter into a dialogue with groups that have plans to develop such portals, for example in Scandinavia., to ensure that cross-searching with these resource is considered carefully at an early stage in the develop of the national/regional portal.

1.2. User generated content

Obviously, if we store tags, annotations, and comments of users of the Research Toolbox these in themselves become an incredibly valuable resource. CERL has gained experience through the CERL Thesaurus by developing a facility for users to annotate CERL Thesaurus records, and ensuring continued accessibility of these annotations. The annotations facility will have to be refined and expanded to make user generated content a readily accessible resource and a powerful tool in furthering research.

1.3. Collaboration with research groups, data collectors and other organisations

In the past, CERL has gained experience with the **Bernstein project**, which provided geo-coordinates for place names in the CERL Thesaurus, and collaboration with **WILC**,²¹ which offered links to their information about watermarks for inclusion in the CERL Thesaurus. Both projects benefited from the variants for place names that CERL had brought together and made available to them.

¹⁸ <http://www.europeana.eu/portal/>

¹⁹ <http://www.b2i.de/>

²⁰ http://www.bibliopolis.nl/index_en.html

²¹ Watermarks in Incunabula printed in the Low Countries (WILC); see <http://watermark.kb.nl/>

On a small scale, CERL member libraries (KB Copenhagen and SB Berlin), in previous years, have digitised printed catalogues recording printers' devices, and have allowed CERL to link to the resulting digital resources from the CERL Thesaurus. The programme of digitisation and linking from the CERL Thesaurus will continue. The CERL Thesaurus links to **Edi16**, and CERL will also endeavour to link to the devices held in **MAR.T.E.**

On a larger scale, CERL would like to stimulate European collaboration on developing access to a great variety of resources that record information about bookbindings. As bookbindings may offer information about the location, provenance, status and use of the books that is in many cases not available from other sources, this will be a great asset to the CERL Research Toolbox. The aim is to make information about historic bookbindings available to the widest possible audience. Information may be sourced from:

- Printed publications about bookbindings, to be digitised and furnished with appropriate metadata.²²
- Electronic resources about bookbindings, available through the internet.²³
- Newly digitised bindings and their descriptions.²⁴
- Rubbings, to be made accessible through the **Einbanddatenbank**²⁵

The Staatsbibliothek zu Berlin, which is responsible for the Einbanddatenbank, has indicated its interest in attracting wider European participation in its endeavour, and has invited CERL members to contribute to the database. CERL and the Vatican Library have initiated a feasibility study to examine how the highly valuable publication by Ilse **Schunke** on the Palatina Library could be turned into an electronic resource. It is CERL's intention to organise a workshop for all those interested in creating integrated access to bookbinding resources in the course of 2010.

A prime example of future collaborative projects is the research proposal for which N. Palmer and C. Dondi have recently gained funding from the British Academy. It is proposed that in a wiki-like environment copy specific information for incunabula (provenance, binding, decoration, mss notes) contributed by incunabulists from all over the world will be brought together and will be made searchable. Bibliographic descriptions from the ISTC²⁶ will be used as a basis by will not be copied. However, on the basis of the ISTC number the provenance information collected in this project can easily be linked to the ISTC (and to the HPBI), and convenient access to the data is secured. CERL will be keen to liaise with the project organisers to establish a system architecture and an adoption of standards and controlled vocabularies to facilitate inclusion of the project results in the CERL Research Toolbox.

As far as the data resulting from object-oriented research is concerned, the Master thesis of Christina Schmitz about Möhring could serve as a case study. On the basis of holdings in the Stadtbibliothek in Mainz, she has created a detailed catalogue of this 17th-century private library, including information on provenance and bindings. In a small pilot study, CERL will investigate how her research data can be made accessible together with CERL Services and other third-party databases.

²² E.g. Haebler, Konrad: *Rollen- und Plattenstempel des XVI. Jahrhunderts*. Unter Mitwirkung von Ilse Schunke. Bd. 1.2. Leipzig 1928-29 (Sammlung bibliothekswissenschaftlicher Arbeiten; 41); Schunke, Ilse: *Die Einbände der Palatina in der Vatikanischen Bibliothek*. Bd. 1.2. Città del Vaticano 1962 (Studi e testi; 216-218); Szirmai, J.A. *Archaeology of Mediaeval Bookbinding* (1999); etc. Further publications to be identified.

²³ E.g. *Germany*: AEB (<http://aeb.staatsbibliothek-berlin.de>); and perhaps *Verlagseinbanddatenbank der UB /FU Berlin* (<http://amun.ub.fu-berlin.de/ved/informationen>); *United Kingdom*: British Library Database of Bookbindings (www.bl.uk/catalogues/bookbindings); NLS Scottish Decorative Bookbinding (<http://www.nls.uk/bookbinding/index.html>). Further electronic resources to be identified.

²⁴ It will be beneficial to formulate and adopt a standard format for these descriptions. Should the proposal for a European Bookbinding Database (EBD) by N. Pickwood be successful, both he and CERL would wish to ensure that cross-searching with this resource is technically possible.

²⁵ Einbanddatenbank (<http://www.hist-einband.de>)

²⁶ Incunabula Short-Title Catalogue; see <http://www.bl.uk/catalogues/istc/>.

2. Functionalities and tools

As access to various resources will be built up over a number of years, so will the functionalities and tools offered to users be expanded in the course of the development of the Research Toolbox. It goes without saying that core features such as selecting and creating results sets, sorting, saving, printing, exporting to reference management software,²⁷ recording a search history and a clipboard facility, will be offered from the start.

The modular approach at the core of the CERL Research Toolbox will allow CERL to define a discrete module or a selection of modules for defined user groups or clients from a particular IP range. Thus, it will be possible to restrict for example the display of HPB data to computers in a CERL member library or provide a search in an institution's catalogue to users from that particular institution (while hiding it from other users). Ultimately, this could be developed into a personalised interface, where the user, once they have logged in can set their preferred modules, store their searches, set up alert services, receive recommendations on the basis of their profile etc. Where possible, existing tools (e.g. Shibboleth²⁸ for authentication, del.icio.us²⁹ for recording websites) will be integrated or adopted.

Emerging technologies and evolving user behaviour will shape the phases in the development of the CERL Research Toolbox. In order to help determine the priorities that need to be set for implementing functionalities (e.g. Web 2.0 features), user panels consisting of librarians, researchers, data providers and subject specialists will be put in place. The information landscape evolves rapidly, and the development of appropriate tools and services will be a continuous cycle of assessment, formulation of requirements, build, engagement of the user – back to starting a new assessment phase.

CERL will seek the panel's advice on development phases, to determine whether elements of personalisation of the work environment for the user should be developed. The aim is to ensure that the CERL Research Toolbox can be slotted into VREs and other interactive platforms, where scholars share knowledge and discuss findings with other experts in the field. But perhaps, researchers will require the CERL Research Toolbox to offer support for tagging, annotating, storing your search history, storing your search questions, receiving alerts when new results become available, and keeping a to-do-list, as well. It is the intention that user generated content (e.g. tags, annotations, collections of bookmarks, etc) are made available to other users of the CERL Research Toolbox for sharing and mashups. CERL will need to investigate how it could integrate the tools that researchers use (e.g. Twitter³⁰ for (micro)blogging), and whether there would be interest in harnessing the mobile web.

3. Technical requirements

The CERL Research Toolbox will be a set of modules, either more technical in nature (e.g. annotations facility), or adopting a thematic approach (i.e. bringing together resources on incunabula, provenance, bookbinding, etc).

Integrating new resources in the CERL Research Toolbox will require analysis of the database's structure and content. Where possible CERL will make use of existing thesauri, ontologies, and mappings, to achieve careful data analysis and data mapping, which is to facilitate accurate and efficient retrieval for the user. The challenge will be to discover the communalities between the terminologies used in each of the contributing data sets, and creating generally applicable tools for all users of the CERL Research Toolbox.

Particular attention will be paid to the presentation of search results. The CERL Research Toolbox should guide the user through the search process and not flood him with huge and unstructured result lists that cannot be handled properly. The result sets must not be ordered or structured in a way that is not understood

²⁷ CERL prefers to work with existing tools where possible. It needs to be determined which of the various reference management tools that are available (e.g. EndNote, Zotero, bibsonomy, Cite-you-like) are favoured by our constituents.

²⁸ <http://shibboleth.internet2.edu/>

²⁹ <http://delicious.com/>

³⁰ <http://twitter.com/>

by the user, and he must be able to influence the presentation of results. The presentation of CERL Research Toolbox result sets itself will therefore follow a modular approach, offering the user categorised search results. The full display³¹ will show the entity in its context: for example, on the basis of an association of a certain copy with e.g. a piece of provenance evidence and the association of another copy with the same piece of provenance evidence, a link between the two copies is established (indicating that both books belonged to the same library/collection). These links between physical items (books) and conceptual entities (e.g. owners) form a network that allows the discovery of associations between items that are not necessarily visible from their bibliographical description.

The CERL Research Toolbox will offer a multilingual display of its web interface, according to the user's language preferences (either explicitly selected by the user from the language menu or based on their browser's language settings). As in the new CERL Thesaurus interface, if parts of the interface are not available in the user's chosen language or the browser's language, the system will default to English.

The CERL Research Toolbox will have a central index (based on search engine technology, such as, for example, Lucene or FAST). Searching must be supported by the persistent storing of relations, or links, between information objects and/or conceptual entities. A session management will be set up to maintain search history and clipboard facilities, where a user might save records temporarily. CERL will store a central index, and an interim display of relevant search results will be made visible via the CERL Research Toolbox interface. The interface will then provide a link to the full and detailed results, which will typically be displayed in the interface of the host institution.

In addition to its own web interface, the CERL Research Toolbox will also return responses in a machine-readable form that allows another client application (e.g. Europeana) to create its own representation of the object's network. In order to support both representations, the interface should include a layer, where the abstract representation is accessible for different front-end agents. In terms of the MIA Logical Architecture,³² it means that the presentation layer should provide for the integration of multiple output generators, following the principle of separating content from presentation, i.e. rendering the same content into various presentation formats (HTML, SRU, Atom ...). It will be investigated whether SRU with its support of application-specific extensions³³ would provide the proper means to pass queries to the CERL Research Toolbox from within other (third-party) applications.

As a future development, CERL would like to investigate the use of GIS data, and the opportunities for developing a visual representation of results on maps. It has established contact with Vlad Atanasiu of the Österreichische Akademie der Wissenschaften in Vienna, who implemented visualisations of search results in the Bernstein Project, and is monitoring developments in the CARMEN³⁴ group, who are preparing 'Mapping Historical Europe', a possible project for submission as an "Umbrella Project" to the European Science Foundation (ESF).

- end of Appendix A -

³¹ See <http://www.cerl.org/demo/sample1.html> for a mock screen display.

³² cf. The MIA Logical Architecture / Tracy Gardner; Paul Miller; Rosemary Russell. – Version 0.3. – [S.l.]: UKOLN, 1999. - <<http://www.ukoln.ac.uk/dlis/models/requirements/arch/>>

³³ c.f. <http://www.loc.gov/standards/sru/specs/extra-data.html>

³⁴ Co-operative for the Advancement of Research through a Medieval European Network; see <http://www.carmen-medieval.eu/>

Alex Jabnke

CERL Data in a Virtual European Information Network
Contextualising Book History Data
Version 0.1 (March 2009)

For CERL Research Portal (CRP) read CERL Research Toolbox

Introduction

The aim of this paper is to describe possible scenarios how the existing and envisioned services offered by the Consortium of European Research Libraries (CERL) could interact with the European Digital Library (Europeana) in offering integrated information services for the scholarly community in the field of book history. The target audience addressed by CERL comprises scholars and researchers in book history itself as well as those with a special focus on historic aspects of other arts, humanities and sciences. It comprises also librarians and other cultural heritage workers dealing with manuscripts and books written or printed in early modern times or before up to the first half of the 19th century.

CERL being first of all a consortium of libraries has since its foundation in 1994 brought together a remarkably huge amount of metadata describing the material objects of Europe's cultural heritage in print and manuscripts. It was its aim from the very beginning to provide a comprehensive overview of books produced in Europe. This took shape in the Heritage of the Printed Book database (recording by now over 3 million library holdings of books printed in Europe between 1500 and 1830)³⁵ and the CERL Portal (giving access to the description of approx. 1.3 million manuscripts and autographs in Europe, North America and Australia).³⁶ Further, CERL has collected authority records for names of persons and corporate entities involved in the production and dissemination of books (either intellectually as authors, translators etc. or physically as printers, book traders etc. as well as owners or donators of books) and also for names of places of printing, papermaking etc. This reference work to conceptual entities,³⁷ called the CERL Thesaurus, does by now record approx. 700,000 entities.³⁸

It is CERL's vision to integrate these resources along with other third-party resources into a portal application, thus providing the scholarly community with a research environment that allows users to establish new connections between the data, facilitating the discovery of relationships between certain objects, places, persons, events or concepts that have not been visible before. This CERL Research Portal is to be understood as an information service: On the one hand, it should provide its own interface(s), thus being a research tool in its own right; while on the other hand, it should provide for being integrated into other information systems as a means of providing enriched information on objects described in there.

In the following chapters, we shall discuss the possible benefits of an integrated information service based on CERL's information resources for other information systems, in particular the European Digital Library (Europeana). We shall therefore outline typical use cases where a user of Europeana might resort to the CERL Research Portal in order to enhance their search results from the Europeana interface.

1. Exploring the context of Objects found in Europeana using the CERL Research Portal

1.1 A user³⁹ finds a digital surrogate of an old print or a manuscript during their search in Europeana.

³⁵ <http://www.cerl.org/web/en/resources/hpb/main>

³⁶ http://www.cerl.org/web/en/resources/cerl_portal

³⁷ Gradmann et al 2008, 4.1.6 speaks of "reference resources".

³⁸ http://www.cerl.org/web/en/resources/cerl_thesaurus/main

³⁹ When talking about a 'user' doing a search in Europeana we assume here a human end user [cf. Gradmann et al 2008, 3.1] using the Europeana web interface (www.europeana.eu) performing an operation described in

An information service that the CERL Research Portal could offer, might, based on a particular metadata record, retrieve a set of similarity and recommendation associations.⁴⁰ To illustrate the use case, let's assume a user is searching for the exploration of North America in the 18th and early 19th century. The Europeana search portal comes up with a number of items, among them the digitisation of *Pike, Zebulon Montgomery: Exploratory travels through the western territories of North America – London, 1811*.

- 1.2 When the metadata record of a digital resource is displayed, a web service is called that indicates if information on the original item⁴¹ or other manifestations or items of the same work in paper form is available through the CERL Research Portal.

This first request send to the CRP system is about to find out if there is at all a chance that additional information on this item is available, without transferring lengthy search results of a full search. If so, the user might decide if they wish to proceed with the retrieval of this additional information. Thus, it is possible to economise on bandwidth and computing capacity on both sides. The request will need to provide metadata on the described object in certain detailedness in order to cover as much access points in the search as possible. The openURL standard (ANSI/NISO 39.88)⁴² or the Contextual Query Language (CQL) as employed in the SRU protocol⁴³ provide for the appropriate means of transmitting even rather complex metadata via HTTP.

As soon as the user in our example above opens the record full display in Europeana, a search on the CERL Research Portal is executed, passing on metadata like the author (dc:creator) and the title (dc:title), by which the CRP resources are searched.

- 1.3 If the response to that query is not an empty set, a link to the CERL Research Portal will be displayed in the Europeana metadata full display.

The response of our sample search might look like this:

```
<module name="item_search" record-count="9" complete="true">
  <record id="cerl.org:hpb:169520453" link="http://cerl.org/researchportal/item?id=cerl.org:hpb:169520453">
    <display>
      Pike, Zebulon Montgomery: Exploratory travels through the western territories... - London,
      1811
    </display>
  </record>
  <record id="cerl.org:hpb:169546446" link="http://cerl.org/researchportal/item?id=cerl.org:hpb:169546446">
    <display>
      Pike, Zebulon Montgomery: Reise durch die westlichen Gebiete von Nord-America... - Weimar,
      1813
    </display>
  </record>
  <!-- ... and seven more records -->
</module>
```

Gradmann et al 2008, 5.1.1 leading to a particular description of a digitised print or manuscript (metadata record). [cf. Gradmann et al 2008, 4.1.1.6] Considering the different end user profiles identified in Gradmann et al 2008, 3.1.1, the information services, CERL has to offer apply to 'academic users', 'expert researchers', 'professional users', and to a lesser degree to 'general users'.

⁴⁰ cf. Gradmann et al 2008, 4.1.1.6

⁴¹ By "original item" we refer to the one paper copy, from which the digital surrogate (which is represented in Europeana by means of a metadata record and an object surrogate, i.e. a thumbnail) was made.

⁴² http://www.niso.org/standards/resources/Z39_88_2004.pdf

⁴³ <http://www.loc.gov/standards/sru/specs/cql.html>

The link text that could be displayed in the Europeana Interface could give as detailed information as considered appropriate, for example

Find more in the CERL Research Portal...

or

9 similar items in the CERL Research Portal

or even

Results from the CERL Research Portal:

- *Pike, Zebulon Montgomery: Exploratory travels through the western territories... - London, 1811* [Find in CERL HPB]

- *Pike, Zebulon Montgomery: Reise durch die westlichen Gebiete von Nord-America... - Weimar, 1813* [Find in CERL HPB] [Find in Europeana]

- 1.4 If the user clicks the link, they will be redirected to the CERL Research Portal web interface, where they can navigate the network of the objects and their associated entities'.

The user who performed our sample search can continue to discover more related items (e.g. Pike's reports on his other expeditions etc.), exploring the CRP's integrated resources via its web interface. Alternatively, the result of a full search on an item or an associated entity can be retrieved in a machine-readable form and used to perform further searches in Europeana.

- 1.5 As the user is navigating the network of an object, digital representation of other objects will be included from Europeana. Thus, the CRP will make relations/dependencies between digital objects visible within Europeana.

As far as the CERL Research Portal functions as a service enhancing the search facilities within Europeana, it should also include Europeana itself as a data source. Thus, it will not only return similarity associations of the given object to objects recorded in (external) CERL databases, but also to other objects within Europeana itself.

In our sample search, the user is for instance lead to the German version of Pike's travel report, which is also accessible through Europeana. Thus, it facilitates the discovery of similarity associations between Europeana objects that are not accessible from Europeana itself.

- 1.6 This principle should work with Europeana as well as with any other metadata repository (e.g. library catalogues). Therefore, the CRP needs to build its interfaces (for machine-access) on established standards.

2. Aggregation of Metadata for Europeana and the CERL Research Portal

- 2.1 The CERL Metadata Aggregator "collects" metadata for

2.1.1. the CERL databases (HPB, CT and possible other)

2.1.2. the central index of the CERL Research Portal

2.1.3. the OAI interface (particularly for Europeana)

CERL has developed an application that allows registered institutions to upload their metadata in an individual format, which is then converted into an abstract format that provides for export of this data in OAI_DC, ESE or MODS via an OAI-PMH 2.0 compatible interface. The conversion module of the Metadata Aggregator has been designed in a way that allows the unlimited integration of individual conversion routines for serving any input format as well as any thinkable output format. Thus, its use is not limited to aggregating data for Europeana, but for any other metadata management software that provides for data inputted by batch load or online.

- 2.2 The metadata aggregated by the CMA comes from CERL member libraries or other institutions and is received either by file upload, OAI-PMH⁴⁴ harvesting or other means of electronic data exchange.

The first implementation of the CERL Metadata Aggregator had an upload form for data files, but by now, an OAI compliant harvester has been added. Other ways of gathering metadata online, e.g. via a regular Z39.50⁴⁵ or SRU request could be investigated as well.

- 2.3 The CMA also harvests metadata on digital surrogates of historic prints from Europeana, unless the data first came into Europeana via the CERL Metadata Aggregator. These metadata will be made available to the CERL Research Portal in the fullest form available (Europeana is supposed to store the full metadata they received from the data providers, while only a shortened form of the record is displayed and indexed).

For the purpose outlined above in 1.5 the CERL Metadata Aggregator resorts to Europeana as a metadata source that should be integrated into the CERL Research Portal. Thus, the CRP integrates also records on those objects that have been delivered to Europeana by other ways, which is a prerequisite to detect similarity associations among the records within the Europeana data pool.

- 2.4 The CMA converts the received metadata to a data format suitable for the intended target resource (HPB, CT, Europeana's Harvester, CRP central index etc.)

As said above, due to its modular approach, it is easy to write plug-ins for any input or output format and any output stream (storing in the OAI compatible metadata repository or feeding into some other system etc.)

- 2.5 Data provided to Europeana via the CMA will also be stored in the CRP's central index, preferably in a more detailed form, if the described objects fit into CERL's time segment – assuming the data provider agreed to this.

- 2.6 Notwithstanding the above mentioned, the CMA provides for enrichment of metadata (using the CRP or any other resource as a secondary source) already during the aggregation process and is capable of delivering augmented/enriched metadata to Europeana's harvester as well as to any other metadata repository.

This is also a side effect of the modular architecture of the conversion workflow, which provides for plugging-in also scripts that resort to other data sources for comparing or enhancing the data that are currently worked on.

For example, let's assume the metadata of a collection of digital surrogates of printed books is processed and this metadata does not comprise any subject indexing (subject headings, classification etc), while the metadata of the original books (paper copies) does. The CMA provides for means to include these additional metadata on the fly from the respective library catalogue during the conversion process. It could then add it to the digital surrogates' metadata before delivering it to Europeana (or the CERL Research Portal etc.)

It should also be possible to create thumbnails of the digitised works during the conversion process.

3. Showing an objects contextual network

- 3.1 The CERL Research Portal integrates information held in CERL's databases and other resources (either by on-the-fly access to external databases or by storing their metadata in the central index) and presents it in a network-like fashion.

Information of relevance to researchers in book history comprises more than bibliographic

⁴⁴ <http://www.openarchives.org/OAI/openarchivesprotocol.html>

⁴⁵ <http://www.loc.gov/z3950/agency/Z39-50-2003.pdf>

descriptions and digital reproductions of old books. It includes also background information on printers, book-traders, owners, papermakers etc. Thus, the coverage of a Research Environment must extend to descriptions (and preferably images) of watermarks, printers' devices, bindings, typefaces, evidences of provenance etc. These bits of information are interrelated with each other and with the bibliographic descriptions of works or individual copies. Via an association of a certain copy with e.g. a piece of provenance evidence and another copy's association with the same piece of provenance evidence, a link between the two copies is established (indicating that both books belonged to the same library/collection). These links between physical items (books) and conceptual entities (e.g. owners) form a network that allows the discovery of associations between items that are not necessarily visible from their bibliographical description.

The CERL Research Portal is meant to be a specialist portal resource that will concentrate on heritage material in the form of the history of the book (focussing especially on the printed book) placed in an international context, intended to support book historians as well as every researcher with an interest in particular aspects of book history. The core resources of the portal will be the Hand Press Book Database, the CERL Thesaurus, and the CERL Portal for Manuscripts and Early Printed Material, presented in combination with a range of information and services from other relevant electronic information sources.

The CERL Research Portal aims to give access to databases and electronic resources that have been created by libraries, other organisations, and scholars; thereby strengthening the visibility of the full range of electronic materials related to the study of the history of the book.

Rather than just providing access to content, the CERL Research Portal aims to successfully integrate resources through accurate linking of information objects. Careful attention will be paid to the analysis of the information resources, as well as the mapping of information held in those databases, in order to arrive at a good level of semantic interoperability.

CERL's aim is to create an interactive platform, where scholars can share knowledge, discuss findings with experts in the field, and deposit the results of research projects so that these are publicly available for other scholars to use and where possible to build upon.

- 3.2 The CERL Research Portal will be a resource for research which is not available anywhere else showing connections between data sets that were not visible before. The CRP is either queried via its own web interface or via a standardised machine-accessible interface (SOAP, SRU etc).

The CERL Research Portal will have its own web interface, which shall provide also value added services (stored searches, alert services etc). In order to provide a service that detects (similarity) associations in Europeana, it needs to accept being queried in other ways as well, i.e. without direct human interaction. This on-the-fly metadata enrichment could take place in the Europeana interface without the user actually being aware of it.

SRU with its support of application-specific extensions⁴⁶ might provide the proper means to pass queries to the CRP; while a data format that can map the description of the objects relations/associations with other objects and entities (what we call its contextual network), has still to be defined, though.

- 3.3 The response of the CRP will either be delivered via its own web interface, displaying the contextual network of the given object in a human readable form, from where the end user can navigate through this network⁴⁷ or in a machine-readable form that allows another client application (e.g. Europeana) to create its own representation of the object's network.

⁴⁶ cf. <http://www.loc.gov/standards/sru/specs/extra-data.html>

⁴⁷ see a mock-up of how this could look like at see <http://www.cerl.org/demo/sample2.html>

- 3.4 The machine readable interface is able to handle two kinds of requests
 - 3.4.1. a request, which's response tells if a full query for a certain object will return any result (see above 1.3)
 - 3.4.2. a request that retrieves the network of dependencies of a certain object (see above 1.4)

The depth to which this network can be retrieved and represented is basically limited by the computing resources, computing time and network bandwidth. But within these limits, it shall be possible for the user or the requesting application to state the level of detailedness they wish to receive.

- 3.5 In order to provide both, human-readable and machine-readable, representations, the interface should include a layer, where the abstract representation is accessible for different front-end agents.

In terms of the MIA Logical Architecture, it means that the presentation layer should provide for the integration of multiple output generators,⁴⁸ following the principle of separating content from presentation, i.e. rendering the same content into various presentation formats (HTML, SRU, Atom...)

4. What do we already "have"?

- 4.1 CERL Metadata Aggregator with the capability to accept metadata via file upload or OAI-PMH
- 4.2 Data Formats supported by the CMA so far:
 - 4.2.1. METS/MODS (Application of SUB Göttingen)
 - 4.2.2. MAB-2 (Application of BSB Munich, offline only)
- 4.3 OAI-compatible metadata repository supporting data export in
 - 4.3.1. OAI_DC
 - 4.3.2. MODS
 - 4.3.3. TEL-Application Profile
 - 4.3.4. ESE (Europeana Semantic Elements)
- 4.4 CERL databases
 - 4.4.1. HPB (with access via Z39.50)
 - 4.4.2. CERL Thesaurus (with access via SRU)
 - 4.4.3. CERL Portal (www access only)
 - 4.4.4. EBOB (with access via SRU, implementation not yet finished)

5. To investigate/implement

- 5.1 The CERL Research Portal ;-) including
 - 5.1.1. a central index (based on search engine technology, Lucene, FAST etc)
 - 5.1.2. forward knowledge/query routing
 - 5.1.3. integration of CERL databases and other external resources
 - 5.1.4. abstract query layer incl. means of user driven system configuration
 - 5.1.5. abstract output layer

⁴⁸ cf. Gardner et al. 1999

- 5.1.6. Web interface and machine-accessible interface (SRU, SOAP etc)
- 5.1.7. persistent storing of links/relations between information objects and/or conceptual entities
- 5.2 XML-Representation of (sub)graphs of linked/related information objects and conceptual entities
- 5.3 Further data formats and conversion routines for the CMA

6. TO DO

- 6.1 Make a list of possible content providers for the CRP, including the applications mentioned by D. Varry
- 6.2 Make a text out of the chart and the bullet points that can be used in a bid for a project
- 6.3 Identify parts of the described vision that can be implemented in a project
- 6.4 Identify possible project partners (from min. 4 different countries)

Bibliography

FRBR 2009

Functional requirements for bibliographic records : final report / IFLA Study Group on the Functional Requirements for Bibliographic Records. – [Version:] February 2009. – [s.l.] : International Federation of Library Associations, 2009. – <http://www.ifla.org/files/cataloguing/frbr/frbr_2008.pdf>

Gradmann et al 2008

Europeana outline functional specification: for development of an operational European digital library / Authors: Makx Dekkers; Stefan Gradmann; Carlo Meghini. – Public draft version, version: 1.2, date: 20 August 2008. – [S.l.], 2008. – (EDLnet; D2.5)

Gardner et al. 1999

The MIA Logical Architecture / Tracy Gardner; Paul Miller; Rosemary Russell. – Version 0.3. – [S.l.]: UKOLN, 1999. - <<http://www.ukoln.ac.uk/dlis/models/requirements/arch/>>

- end of Appendix B -

APPENDIX C – ABOUT THE HPB DATABASE (FROM FM/2008/3)

CERL wishes to improve the quality of the HPB Database so that the use that is made of the database increases. The HPB is used by scholars, by librarians, and may possibly be used by commercial partners.

Suggestions for improvements

All users of the HPB will need to be offered an effective search system. Users must feel certain they retrieve all records that are relevant to their search. Relatively complex searches must be relatively easy to construct and still offer reliable search results.

In the OCLC environment this is mostly well taken care of. CERL and OCLC are working hard on implementing a multilingual search interface and refining the Assisted Searching facility. In addition, CERL may examine the search index labels for search indexes in FirstSearch and Connexion to establish whether they are transparent to the various user groups.

All HPB users benefit from a database that contains the widest possible variety of materials, offered through records that are of the highest possible quality.

In terms of HPB file loading CERL could focus the file loading programme to concentrate on

- *file loads that complement the current HPB contents in terms of topics, era and areas that are covered,*
- *library catalogues of libraries that have not yet made their catalogues for early printed books available on line, and/ or are not likely to be covered in Europeana/KVK/ other portals in the near future,*
- *converting printed catalogues that are not likely to become available in electronic format in the near future,*
- *the non-national materials that CERL members have not yet contributed to the HPB.*

In terms of the quality of the HPB records, the records in the HPB

- *can be edited (by the file provider, or by CERL staff – an editing policy is being developed),*
- *can be replaced by fuller records (offered by the file provider),*
- *can be grouped together so that less extensive records are completed by information from fuller records (possible techniques such as FRBR, Authority Control, RDF, etc. should be investigated).*

Scholars wish to see (full text) digital materials. CERL cannot undertake a digitisation programme and should not compete with Europeana in this respect. CERL will therefore have to rely on materials available from other sources (i.e. libraries, commercial organisations, catalogues, portals, etc.).

Access to digital materials can be achieved in a number of ways:

- *by loading records in the HPB that already include URLs for digital material held by file providers,*
- *by somehow adding URLs for digital material held by file providers to records that are already in the HPB,*
- *by setting up a facility (e.g. in the proposed CERL Research Portal, now called CERL Research Toolbox) whereby a search is executed simultaneously in the HPB and in repositories of digital materials,*
- *by loading records from commercial organisations with digital materials into the HPB.*

Scholarly research would benefit if the HPB was presented in a context of other databases with primary (printers' devices, provenance information, book bindings, etc) and secondary (e.g. Book History Online) materials. This would have the added benefit of increasing the visibility of the HPB Database.

Access to some of these primary materials is already offered through the CERL Thesaurus, but this is not currently integrated with the HPB. Cross-searching of the HPB and WorldCat will be offered. Cross-searching between HPB and ESTC is offered in the CERL Portal, but is (of necessity) offering only limited results display and is therefore of limited use. Its use could be improved by adding further early printed books databases (e.g. VD17, Catalog collectif) to the CERL Portal. CERL also proposes to investigate the development of a CERL Research Portal (now called CERL Research Toolbox; see FM/2008/8 and 9), which would provide an excellent context for HPB data.

Concerning (derived) cataloguing, the recent opening up of an HPB editing facility to CERL members will assist these members to selecting an appropriate record, amending it according to that particular institutions requirements and downloading it for inclusion in their own catalogue.

- end of Appendix C -

C. Dondi

CERL and Research Centres for the History of the Book

Version 2 (27 October 2009)

1. Goal

To follow up on the proposal presented by I.Monok at the 2008 Annual General Meeting and discussed by the Directors in March 2009 and at the Tallinn EC Meeting (20/06/2009), it will be part of the CERL Strategy for the period to 2013 to foster closer relationships between CERL and Research Centres and Groups which focus on the History of the Book, as well as book-based Research Projects and websites.

1.1 What do we offer to them

- visibility
- opportunity to contribute views and recommendations to CERL
- opportunity to develop new research projects with CERL and its Member Institutions
- opportunity to join ongoing CERL projects
- a platform to access other projects and libraries,
- direct access to CERL's network
- CERL publications and newsletter
- Presence at AGM Seminars

1.2 What do we gain from them

- visibility and closer connection with Centres and Projects, invitations to talk at conferences, to present books, to contribute articles to specialist journals and other publications
- advice and new ideas from specialist users, not only for the development of projects but also for the selection of topics for AGM seminars
- expansion of subscriptions directly, by special membership of the Centres, and indirectly, via the Centres' connections with Universities and Libraries they are linked with.
- speakers for the AGM, suggestion of other centres to approach.

2. Identification of Centres, Groups, Projects, and relevant websites

- 2.1 Research Centres tend to have long life (i.e. are not time-limited) and a physical location, generally attached to either a University Faculty or Library; for example *Centre for the Study of the Book*, Bodleian Library, Oxford.
- 2.2 Research Groups tend to have long life but not a physical location; they may be linked virtually and of course some of their committee members are based respectively in various University institutions; for example *Association Paléographique Internationale. Culture. Écriture, Société* (APICES), whose Moderamen is made of members of the IRHT, Paris and Orleans, University of Cassino, Munich, Seville, and Oxford.
- 2.3 Research Projects tend to have limited life but a physical location, i.e. they are generally attached to one or more institutions; for example the *Universal Short Title Project* (USTC) attached to the Reformation Studies Institute at the University of St Andrews.
- 2.4 Websites generally have long life and are run by an individual attached to a University or Library; for example *History of the Book @ Oxford* (HoBo: www.english.ox.ac.uk/hobo/), maintained by Ian Gadd, University of Bath.

3. Preparation of lists

Lists of Centres, groups, etc. will be prepared by the Secretariat: information is welcome from all members (some has already been received). The secretariat is also considering whether a questionnaire should be sent

out to all CERL member libraries asking to contribute information on centres and projects they may know because based near them or using their resources; the questionnaire should also be sent out to some University faculties.

Action: All members should send information on research centres, projects, etc. to the Secretariat. To prepare a questionnaire to be sent out in 2010, before the end of the academic year.

4. Contact with Centres etc.

Initial contacts have already started, namely with:

- Centro di Ricerca Europeo Libro Editoria Biblioteca (CRELEB) at Milan, Università Cattolica, coordinated by Prof. Edoardo Barbieri, whom CFD met during August 2009 in Italy.
- *Association Paléographique Internationale. Culture. Écriture, Société* (APICES), of which CFD is Treasurer, and links and cooperation were discussed during a meeting of the Moderamen in Rome, Oct. 2009.
- "Le biblioteche degli Ordini regolari in Italia alla fine del secolo XVI" (Libraries of regular religious orders in Italy at the end of the XVI century), A database coordinated by Prof. Roberto Rusconi, Univ. degli Studi Roma Tre.
- Other approaches will follow, by email and in person.

5. Preparation of Webpage in CERL website

- 5.1 CERL should create a page accessible to everybody in the CERL website dedicated to Research Centres and Groups affiliated with the Consortium. They will be listed alphabetically with their logo, brief description of their objectives, contact name and details.
- 5.2 CERL should create another page dedicated to Projects, again with short description of their purpose, time-span, contact name and details; with crossreferencing if they are being developed by one on the centres listed in the other webpage, and viceversa.
- 5.3 Links should also be provided, either in a separate page or in the project one, to very useful bibliographic websites, such as Hobo, Menestrel, RELICS, etc.
- 5.4 Finally, consideration should be given to the creation of a space where all CERL member libraries are represented with information either on their special collections (or where to find it on the web) and / or on the research active members of their staff, with some information on their research or publications. This section should be maintained by the libraries themselves.

6. Membership

In some instances part of the established relationship with Centres, Groups, and Projects will materialize into a request for special membership – the fee and conditions for which need to be established in consultation with the Finance Committee and the Executive Committee.

It is likely that for the many research Centres and Groups attached to Universities, these will act as pressure group to plead for the membership of their institutions: CERL will then discuss with them the most appropriate form of membership according to the new suggestions on memberships which will be proposed by the Secretariat and discussed at the AGM (with the main purpose of expanding membership to medium-size institutions such as University Libraries).

Initial list of Research Centres to be contacted:

BOLOGNA, Archivio Umanistico Rinascimentale Bolognese =ARUB, Prof. Luisa Avellini avellini@arub.unibo.it [already a CERL member]

DUBLIN, Centre for the History of the Media at University College Dublin, Director: Alexander Wilkinson. Ongoing project Iberian Book Project <http://www.ucd.ie/ibp> (short-title cat to be published early 2010)

EDINBURGH, Centre for the history of the Book

22a Buccleuch Place, The Univ. of Edinburgh, Edinburgh EH8 9LN, chb@ed.ac.uk

FLORENCE, Società Internazionale per lo studio del medioevo latino (SISMEL)
segreteria@sismelsismelfirenze.it

FLORENCE, Institute at Palazzo Rucellai, runs the course: Translating the past a workshop on Medieval and Renaissance sources devoted to art, history, and literature sbaldassarri@palazzorucellai.org

LONDON, LIGATUS Research Unit, University of the Arts, Director Nicholas Pickwood
A Research Unit for the History of Bookbinding and Conservation
www.ligatus.org.uk
University of the Arts, Wilson Road, London SE5 8LU 020 7514 6432

LONDON, UCL, Centre for Medieval and Renaissance Studies

LONDON, Centre for manuscript and Print Studies, Institute of English Studies, Univ. of London
Prof. Simon Eliot, Chair in History of the Book, cmps@sas.ac.uk

LYON, ***

MADRID, ***

MAINZ, Dep. Univ. Istituto storia???? Reske??? CHECK

MESSINA, CISU = Centro Interdipartimentale di Studi Umanistici, Facoltà di Lettere e
Filosofia - Università degli Studi di Messina, Polo dell'Annunziata - 98168 Messina
Fax. 090.3503895 e-mail: cisu@unime.it, <http://www.cisu.unime.it/>

MILAN-BRESCIA, UNIV. CATTOLICA. C.R.E.L.E.B. = Centro di Ricerca Europeo Libro Editoria
Biblioteca. Coordinatore Prof. Edoardo Barbieri, online publication: L'almanacco Bibliografico.
creleb@unicatt.it
[good contacts with Ecclesiastical libraries Association ABEI; and Trento Rovereto]

OXFORD, Centre for the Study of the Book [already a CERL member] <http://www.bodley.ox.ac.uk>

PARIS, ENC/SORBONNE: <http://www.enc.sorbonne.fr/histoiredulivre/>
who are the persons resp. for the pages? ask mark smith

PARIS, Institute de Reserche et d'Histoire du Texts, which section?

SALAMANCA, Instituto de Historia del Libro y de la Lectura; part of Centro Internacional de investigación
de la lengua, Cilengua.es Co-Director Pedro M. Cátedra and María Luisa López Vidriero;
<http://campus.usal.es>

STIRLING, Centre for International Publishing and Communication, University of Stirling [CERL Special
Member]. <http://www.pubstd.stir.ac.uk/>

Initial list of Research Groups:

- *Association Paléographique Internationale. Culture. Écriture, Société* (APICES).
President: Prof. Marilena Maniaci, Univ. of Cassino
- Renaissance Society of America
- AIB = Associazione Bibliotecari Italiani
- ARL = Association of Research Libraries (US) www.arl.org
- The Oberlin Group of Libraries (US, circa 80 liberal arts colleges) www.oberlingroup.org
- Rare Book School, University of Virginia, Director Michael F. Suarez S.J.
michael.suarez@virginia.edu

Initial list of Research Projects:

CAMBRIDGE (UK), Corpus Christi College: Parker on the web

CESENA, Newsletter del Catalogo Aperto dei Manoscritti Malatestiani
<http://www.malatestiana.it/manoscritti/news.htm>
Istituzione Biblioteca Malatestiana, Piazza Bufalini, 1 - 47023 Cesena (FC)
Tel. 0547/610892 Fax 0547/21237

GENEVA: GLN 15-16 = A bibliography of books published in the 15th and 16th centuries in the cities of Geneva, Lausanne, Neuchâtel, Morges. Compiled by Jean François Gilmont
<http://www.ville-ge.ch/musinfo/bd/bge/gln/>.

LONDON, The Italian academies project 1530-1650, Prof. Jane Everson, Royal Holloway, and The British Library

OXFORD, 'Cultures of Knowledge: An Intellectual Geography of the Seventeenth-Century Republic of Letters', an interdisciplinary research project, based in the Humanities Division of the University of Oxford in collaboration with partners in Britain and abroad, dedicated to reconstructing the correspondence networks central to the revolutionary intellectual developments of the seventeenth century. Funded by the Andrew W. Mellon Foundation, the Project will pursue a number of interrelated objectives simultaneously. One will be to catalogue, edit, and preserve the rich archives of correspondence deposited in the Bodleian Library. Another will be to join forces with partners and institutions in Sheffield, Prague, Cracow, Budapest and elsewhere to develop and link similar resources internationally. A third will be to create digital systems capable of organizing these materials into an online union catalogue of intellectual correspondence. Finally, an international series of seminars, workshops and conferences will explore new analytical frameworks for understanding early modern systems of information exchange, and will help to consolidate a scholarly community geographically and thematically coextensive with these seventeenth-century networks. For full details of our activities, please see the provisional website: <http://www.culturesofknowledge.org>. Dr James Brown, Research Project Coordinator, james.brown@history.ox.ac.uk

ST ANDREWS, Universal Short Title Catalogue (USTC) Project, attached to the Reformation Studies Institute, coordinated by Prof. Andrew Pettegree [CERL Members].
<http://www.st-andrews.ac.uk/~bookproj/>

TRENTINO: Progetto ESTer = Edizioni e Stampe di Trento e Rovereto

VIENNA, The Bernstein Project, coordinator Emanuel Wenger. The memory of paper [watermarks database]
<http://www.bernstein.oecaw.ac.at/>

Links to:

- Bonifacio Baroffio's website on Liturgical sources <http://musicologia.unipv.it/baroffio/>
- HoBo = History of the Book at Oxford, Bibliographical events in the UK, maintained by Ian Gadd (Univ. of Bath). users.ox.ac.uk/~hobo/hobo/events.html
- ICCU Portal
- Menestrel = www.menestrel.fr website for medieval studies partly(?) run by the école nationale des chartes, Paris
- Renaissance Liturgical Imprints (= RELICS), Univ. of Michigan, <http://quod.lib.umich.edu/r/relics/>
- Library History Database (for the history of UK libraries), www.r-alston.co.uk
- MILAN, Incunaboli postillati online www.marginalia.it
Prato (Tuscany) Fondo Documentario Francesco Datini (1335-1410), trade documents relating to Italy France and Spain, <http://datini.archiviodistato.prato.it/www/>

<http://www.bibliotecadigitaleitaliana.it/genera.jsp>

<http://www.enc.sorbonne.fr/histoiredulivre/>

<http://aedilis.irht.cnrs.fr/initiation-liturgie/>

http://web_bude.irht.cnrs.fr/

on the transmission of classical and medieval works in mss and early printed bks until mid 17th century

<http://www.aib.it> (Associazione italiana biblioteche)

WEIMAR: <http://www.klassik-stiftung.de/einrichtungen/herzogin-anna-amalia-bibliothek/projekte/provenienzportal/informationsmittel/t-pro.html> (for research on provenance)

NEW YORK, The Grolier Club, Dir. Eric Holzenberg <http://www.grolierclub.org> (for events in NYC)

bvpb[h?].mcu.es = Biblioteca virtual del Patrimonio Bibliografico Espanol

Cartularium.es = soc. espanola de CC. y II. Historiograficas

Bibl. med. de France = BMF [IRHT]

Libraria on hist of old libraries, in 2 months online(i.e. by dec. 09?) [IRHT]

biblioblog? biblifram? [IRHT]

Fellowships and Grants in the History of Books:

AUSTIN, TEXAS, Harry Ransom Center Research Fellowships in the Humanities

deadline: 1 Feb. 2010; <http://budurl.com/pwvtv>

HARVARD, LONDON, UK, Bib Soc; NEW YORK, GROLIER CLUB; OXFORD, UK; YALE; *etc.*

- end of Appendix D -