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Can archivists, librarians, museologists and IT specialists join hands to do a better job?

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ABSTRACT

Development of information and communication technology (ICT) has opened up unprecedented possibilities for cultural heritage institutions, but also posed a new demand on them to make their collections widely available and accessible outside their institutional boundaries. Users no longer care where information (in the form of a book or an object) is physically located (say, in archive, library or museum) just as long as the resources they are looking for are well integrated, well-organized and easily accessible.
Cultural heritage professionals and policy makers in many institutions/countries world wide have recognized the increasing importance of local cultural identity, and, combined with the potential of technology, initiated a number of collaborative cultural heritage initiatives world wide.
The paper will outline theoretical framework for collaboration of cultural heritage institutions and present several successful collaborative initiatives. Special attention shall be given to EU project CALIMERA – Cultural Applications: Local Institutions Mediating Electronic Resources Access (www.calimera.org) which is a Coordination Action under the European Union's Information Society Technologies Framework Programme 6 (IST FP6) whose goal is to assist local cultural institutions – public libraries, museums and archives – to gradually develop a base that would enable them to apply and develop innovative technologies and joint strategies for serving ordinary citizens in their everyday lives.
Also, a short account of ALM initiatives in Croatia will be given.

Introduction

Archives, libraries and museums are cultural heritage institutions, or memory institution *per se*, whose mission is, in principle, the same: collecting organizing, preserving and facilitating the use of cultural and scientific heritage. Despite the fact that they have traditionally focused on material of different format (although not always) and based their work on different professional standards and rules, tasks and challenges they face are similar.

Historically, realities of museums, but it can be said for archives and libraries as well, have changed many times. They «have always had to modify how they work, and what they did, acording to the context, the plays of power, and the social, economic, and political imperatives that surrounded them» (Hooper-Greenhill, 1995, p. 1). Literature shows that early collection practices «lack a conceptual division between what we would call museum, archival and museums materials» because wealthy rulers and scholars accumulated collections which «were undifferentiated in the form of the information held within them» (Charnes). Different artefacts, texts, and objects were accumulated that were «appropriate to the broad miltidisciplinary intellectual interests of the individual collector» (Rayward, 1995). Only later, did the specialization in collections and professions develop, and according to Rayward, «this differentiating process reached its high point in the 1950s and 1960s before the advent of computer revolution». He procedes to note that this development does not reflect the need of an individual researcher or interested member of the general public because «for the individual the ideal is still the personal cabinet of curiosities that contain whatever is needed for a particular purpose or to respond to a particular interest, irrespective of the nature of the artefacts involved – books, objects, data, personal papers, recorded image, government files» (Rayward, 1995).

In the last couple of decades, a huge twist in operations, services and philosophies of memory institutions has been provoked mainly by development of information and communication technology (ICT). New technology has opened up unprecedented possibilities for cultural heritage institutions, but also posed a new demand on them to make their collections widely available and accessible outside their institutional boundaries. Users no longer care where information, in whatever form, article, book, photograph, music, map, object etc, is physically located (in archive, library or museum or at a website) just as long as the resources they are looking for are well integrated, well-organized and easily accessible. In line with this, Werner explicitly states that «the form of information, a distinction so important in differentiating the work of archivists and librarians (and curators) in early years, is becoming less important, and in many cases the distinction is disappearing entirely» (Archives and Library Administration, 1986, p. 172). Furthermore, just as Martin has noted, if we agree that archives, libraries and museums collect documents[1] and that, in the digital environment, documents are «talking things», and that the distinction between text and image and artifact diminish, we can say that the boundaries between museums, library and archives disappear (Martin, 2003). Through presentation of their collections online these institutions are becoming a «seamless web» (Rayward, 1995).

Rayward also points out that as the use of computer technology increases in museums, libraries and archives, the gaps between the three are shrinking and notes that «as electronification of information sources increases, and libraries, archives and museums

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[1] Documentalists' definition of a document includes «any source of information, in material form, capable of being used for reference or study or as an authority». Examples: manuscripts, printed matter, illustrations, diagrams, museum specimens, etc. (Buckland, 1997)

increasingly deal with electronic records, an extension, a realignment, perhaps a transformation of functions is occurring between these historically determined reorganisational arrngements for handling information artefacts» (Rayward, 1995).

It is becoming obvious that «distinction between these apparently different types of institutions eventually will make as little sense in the future as they did three hundred or so years ago» (Rayward, 1995). Moreover, differences between the archives, libraries and museums, «the nature of materials, the method of selecting and controlling materials and the mission or purpose of the library or archives (or museums), as embodied in its perception of its users' needs and how it relates to them» (Archives and Library Administration, 1986, p. 38), can be perceived more as a question of convention and tradition than real, conceptual differences (Rayward, Martin, Charnes).

If one follows predictions that in the future specific differences between the three professions, archivists, museum curators (museologists) and librarians (for example Warner) will remain in «approaches to their jobs, one can assume that their disciplines will increasingly become subcomponents of a larger discipline of information handling. Theoretically, all three professions have to realize that they are concerned with the collection, storage, and faclitation of access to information in a wide variety of formats to meet divergent publics and responsibilities» (Archives and Library Administration, 1986, p. 172).

Interdependence of archival science, librarianship, museology and information sciences has been discussed at many occasions ever since the advent of information sciences in mid 19ct. We can say that it has been, more or less, accepted that library science, archival science and museology are all part of information sciences, based on their similarities of main object of study (information or recorded knowledge) and their mediatory role in communication process (Aparac-Gazivoda, 1993, pp. 79, 178). Furtheron, in 1982, Šola has, so far unsuccessfully, suggested that a common philosophy for all three different but related institutions and disciplines within the information sciences, be named «heritology», or, as he proposed later in 1989, «mnemosophy». He defined heritology as a study of the future of collective experience – a science focused on the concept of total heritage (Šola, 2003, pp. 37-38).

Evidence of convergence of three sectors, already announced by theoreticians, can also be seen in the education of professionals for the heritage sector. Schellenberg advised that archives and library profession, and beyond doubt, we can add museum profession as well, should cooperate – both in «administration of their holdings, in the development of their methodology and in provision of training facilities» (Archives and Library Administration, 1986, p. 172). Furtheron, Werner emphasized that «it is in the area of education where archivists and librarians (and curators) will finally come together» (Archives and Library Administration, 1986, p. 173). A more recent survey of formal education of professionals in the heritage sector proved that heritage professionals are in need of some common general knowledge and skills necessary for work in this broad sector, and identified a number of university programs and wide range of content of interest to all three professions[2] (Aparac, T., et al, *in print*). However,

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[2] The study indentified the following broad subject areas taught at archives, library and museum schools world wide: Design, development and use of information systems, ICT, Organization, presentation and analysis of knowledge/information, Management of information systems and services, Access to collections and information sources, Research and research methods, Relationship of information/information institutions and society, Preservation of collections and data, Historical studies, Optional ALM courses, Courses according to the type of institution, Other Courses.

training for archival, library and museum professionals is still in most countries located in different departments and schools. These separate educational programmes rarely correspond. However, Department of information sciences at Zagreb University, Croatia, offers, since mid 1980s, among others, a BA degree in library, archives and museum studies. It is a characteristic of this programme that for the first four semesters all students are taught the same courses and only later do they choose their specialization in archival, library or museum studies[3]. Also, in terms of continuing professional development (CPD), an interesting training programme has been developed in Britain, under which professionals from archives, libraries and museums are given an opportunity for profesional development through secondments in cultural institutions other than their own[4].

Beyond doubt, archives, libraries and museums have always been institutions which facilitated access to various kinds of information and promoted cultural and educational advancement of society. Over time, they have also become fundamental to every democratic society, as institutions open to all citizens of modern world, regardless of their age, sex, race, economic, political or religious background. Furthermore, with advent of global information society and information economy, these institutions, as repositories of information, which is a basic good in today's society, prove to be extremely important and are a measure of development of a particular society and country. World policy and decision makers have ultimately also realized the value and importance of cultural heritage and institutions which take care of it so that a legal framework has been set[5], together with development of professional guidelines, which provide for its successful preservation and efficient exploitation.

It must be recognized that, although archives, libraries and museums do not have the same tradition of sharing and collaboration, this blurring of boundaries between cultural heritage institutions, initiated primarily by information and communication technology, provides a useful environment for exploring collaborative endeavors (Martin, 2003). In addition, many cultural heritage professionals and policy makers world wide have recognized the increasing importance of local cultural identity, and, combined with the potential of technology, encouraged and initiated collaborative action in cultural heritage field.

However, Miller et al (2001) point out that piecemeal nature of digital content creation, and the varied approaches taken by different projects could bring about, in the words of T. Kuny, encroaching digital dark ages. It is, therefore, up to knowledgeable and skilled heritage professionals «with some evidence of a political will behind us, with a raft of new programmes in their infancy, and with clear lessons to be learned from innovators, to initiate and actively participate in development of the next generation of truly user–focussed, interoperable, services» (Miller, P., et al, 2001).

A look into practice…

There are numerous initiatives, programmes and projects, both on local, national and international level encouraging and focussing on cross-sectoral partnerships.

At strategic level, a number of national agencies have been founded which support innovative application of information and communication technology in European archives, libraries and museums and promote collaboration among them. In the UK, Museums, Libraries and

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[3] More information is available at http://www.ffzg.hr/infoz/eng/index_e.html .
[4] More information availble from a Report «Sharing Skills : Evaluation» at http://www.mla.gov.uk/documents/skillshare.pdf
[5] In Croatian legislature, museum, archives and library professions have been recognised as professions of special interest to the whole society.

Archives Council (MLA)[6], was founded in 2000 as a strategic body working for and with museums, libraries and archives, encouraging cooperation between them. MLA's roles are to advise government on policy for museums, libraries and archives, and provide leadership and specialist advice across the sector. Three years later, the Norwegian Archive, Library and Museum Authority, so called ABM-utvikling[7], has been founded as a common agency for archives, libraries and museums. It is a strategic and advisory body promoting partnership and collaboration between three sectors and acts as intermediary between them and the government. In the US, it was already in 1996 when Institute of Museum and Library Services (IMLS), an independent federal agency, was founded to serves as the primary source of federal grant support for the nation's museums and libraries. Since its inception IMLS has done much work, among other things, to encourage the development of cultural partnerships of libraries, especially with museums and archives (Martin, 2003).

European Commission has also actively supported innovation and collaboration in the heritage sector for the last two decades. It started with *Libraries Programmes* in 1988 where its focus were mainly libraries and then proceded with its *Framework Programmes* (FP3, FP4, FP5 and FP6) which included not only libraries, but also archives, museums and other cultural institutions. Since then, it has financed many successful collaborative actions and projects, such as JUKEBOX[8], MALVINE[9], LAURIN[10], LEAF[11], CALIMERA[12], etc.

CALIMERA (Cultural Applications: Local Institutions Mediating Electronic Resources Access) is a coordination action under the European Union's Information Society Technologies Framework Programme 6 (IST FP6[13]). Its goal is to assist local cultural institutions – public libraries, museums and archives – to develop and apply innovative technologies and joint strategies for serving ordinary citizens in their everyday lives. It sees local memory institutions as means for combating social inclusion and bridging digital divide through «the creation, use and delivery of local cultural content to meet specific local information and learning needs» [14]. The CALIMERA partner network involves directly 52 organisations from 42 European and neighbouring countries, including local and municipal public libraries, museums and archives, national authorities, research institutions and solutions providers[15]. The CALIMERA 18 month Coordination Action which started in December 2003 builds upon the achievements of another EU project, PULMAN Network of Excellence (Public Libraries Mobilising Advanced Networks)[16], which has already set the scene for promoting best practice among local institutions throughout Europe. The project also develops synergies with related activities in the area of IST FP5 action line Heritage for

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[6] All information from MLA website http://www.mla.gov.uk/
[7] More information available at http://www.abm-utvikling.no.
[8] More information on project JUKEBOX (Applying Telematics Technology to Improve Public Access to Audio Archives) available from http://www.sb.aau.dk/service/jukemenu.html.
[9] More information on project MALVINE (Manuscripts and Letters via Integrated Networks in Europe) available at http://www.malvine.org/.
[10] More information on project LAURIN (Libraries and Archives Collecting Newspaper Clippings Unified for Their Integration into Networks), available at http://germanistik.uibk.ac.at/laurin
[11] More information on project LEAF (Linking and Exploring Authority Files) available at
http://www.crxnet.com/leaf/index.html
[12] Project web site CALIMERA http://www.calimera.org .
[13] More information available at http://www.cordis.lu/ist/directorate_e/digicult/events.htm .
[14] From Citizen's Charter. URL. http://www.calimera.org/staticpages/citizens-charter.aspx
[15] The list of CALIMERA consortium members is available at
http://www.calimera.org/staticpages/participants.aspx .
[16] More information on PULMAN Network of Excellence is available at http://www.pulmanweb.org.

All[17] and recently agreed several networking ventures[18]. Furthermore, CALIMERA will develop the agenda and working structures for collaboration on local services with Europe's research partners globally and nurture the involvement of the countries of South East Europe (Faletar, 2005, p. 23). In order to achieve its work, CALIMERA outlined, among others, the following objectives:

- «coordinate and mobilise local cultural institutions for their new role as key players in transforming innovative technologies into helpful services for ordinary citizens, including all types of user from children, to employees and pensioners, into the Information Society, putting European cultural heritage at the service of the citizen

- contribute to strategies for preserving the European collective and community memory in all its variety, contributing to a knowledge-based economy in Europe

- increase sharing of best practice, by local institutions, produce guidelines and benchmarking tools and prepare high-impact dissemination activities»[19]

CALIMERA has been successful in pooling together expertise from all three sectors: archives, libraries and museums and has signposted the way forward in developing local digital heritage collections. Best practice links and policy tool-kits have been produced which will hopefully be used and applied in concrete collaborative project across Europe[20].

ALM collaboration has also been a hot topic of many professional writing[21] and meetings. One of the earliest professional meetings which addressed the collaboration of archives, museums and libraries and which brought together professionals from all three fields, was organised in 1998. The European Commission in the framework of the Telematics for Libraries Programme, supported a seminar «Convergence in the Digital Age: Challenges for Libraries, Museums and Archives». The seminar was a satellite event of the 64th General Conference and Exhibition of the International Federation of Library Associations & Institutions (IFLA). As the preface of Procedings says «the seminar was a unique opportunity for libraries, museums or archives professionals to share their experiences of handling digital information and to discuss the common issues and challenges faced»[22].

Individual professionals and national institutions in the field of cultural heritage and culture in general have collaborated on international level to form various non-profit organizations

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[17] More information on Heritage for All is available at
http://www.cordis.lu/ist/directorate_e/digicult/community.htm

[18] CHIMER (http://www.chimer.org), CIPHER (http://www.cipherweb.org/overview.html), COINE (www.coine.org), IST FP 5 projects and networking actions such as ACTIVATE (http://www.activate.ie), MUSICNETWORK (www.interactivemusicnetwork.org), TRIS (http://www.trisweb.org/tris/trisportalpro/home/default.asp), BEASTS (http://www.project.cd/beasts), SEIN (http://www.uni-bielefeld.de/iwt/sein/) and recently agreed networking ventures under FP6 such as BRICKS (www.brickscommunity.org), DELOS (http://delos-noe.iei.pi.cnr.it), MINERVAPlus (www.minervaeurope.org), EPOCH (www.epoch-net.org), and PRESTOSPACE (www.prestospace.org).

[19] From CALIMERA web site http://www.calimera.org/staticpages/objectives.aspx

[20] Major project outputs, such as, Country reports on museums, archives and libraries in 33 countries involved, Solutions Noticeboard (a central point of reference for local cultural institutions in their search for technology based products and services), Policy tool-kit for cross-domain working and Policy and Best practice online forum are available at CALIMERA home page.

[21] *Scandinavian Public Library Quarterly* 2003 issue was entirely devoted to collaboration of archives, libraries and museums. Full-text journal is available at http://www.splq.info/issues/vol36_2/splq2_03.pdf

[22] Detailed information about the Seminar and full-text procedings are available at http://www.cordis.lu/libraries/en/ifla/iflasem.html#preface .

furthering preservation of and access to world heritage via collaborative efforts of memory institutions. Thus, for example in Europe there is European Commission on Preservation and Access (ECPA)[23], the European Heritage Network[24], and European Museums' Information Institute (EMII)[25]. Similar initiatives exist outside Europe, e.g. US-based coalition National Initiative for a Networked Cultural Heritage (NINCH)[26], and Canadian Heritage Information Network (CHIN)[27]. A mention should also be made of an interesting merger of Canadian heritage institutions: National Library and National Archives of Canada have merged their collections, services and staff in 2004, to form Library and Archives Canada – LAC[28], an innovative knowledge institution collecting and preserving Canadian documentary heritage in all formats and facilitating simple one-stop access to it.

A mention should be made that in the US and Canada there are several for-profit organizations, e.g. Archives and Museums Informatics[29], ArchMuse and Knowledge Culture - a consulting service and resource center for cultural heritage professionals in US whose aim is to help cultural and academic institutions to maximize and mobilize their digital resources[30]. This emergence of for-profit institutions offering services to memory institutions shows that this field has been recognized as interesting i.e. profitable.

Many of the above mentioned institution and initiatives support i.e. initiate and/or finance cross-domain pojects on regional or national level. In the UK, MLA has, for example, supported projects such as Scottish Cultural Resources Network (SCRAN)[31], CORNUCOPIA [32]and CECILIA[33]. Within a Cultural Heritage Project, Irish Library Council has co-sponsored development of a portal facilitating unique access to new information, rare images and documents from Irish public libraries, museums and archives and a collaborative digital reference service AskAboutIreland[34]. Scandinavian countries are also very active in building ALM cooperations and have initiated and developed a number of networks and projects that

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[23] ECPA was founded in 1994 as a non-profit foundation whose aim is «to foster , develop, and support in Europe collaboration among libraries, archives and allied organizations, in order to ensure the preservation of the publishwed and documentary record in all formats and to provide enhanced access to the cultural and intellectual heritage (ECPA Missiona Statement). More information available at http://www.knaw.nl/ecpa/aims.html

[24] European Heritage Network is a permanent information system gathering governmental services in charge of heritage protection within the Council of Europeand it exsists to encurage and facilitate the starting of projects and partnerships. More information available at http://www.european-heritage.net/sdx/herein/

[25] EMII provides the arena within the cultural heritage sector for the discussion of ideas and exchange of best practice on the use of information management and more recently the management of digital assets across European memeber states and associat ecountries. More information available at http://www.emii.org/index.htm

[26] NINCH is a coalition of mainly American organizations and institutions (libraries, archives, musuems, universities, professional associations) founded in 1996 in order to ensure informed leadership of cultural community in digital environment. Further information available from NINCH website http://www.ninch.org/about/mission.html

[27] CHIN is an active network of heritage organizations, which engages national and international audiences in Canadian heritage through leadership and innovation in digital content, partnership and lifelong learning opportunities. More information available at http://www.chin.gc.ca/English/index.html .

[28] Available at http://www.collectionscanada.ca

[29] More information available at http://www.archimuse.com

[30] Available at http://www.knowledgeculture.com/index.html

[31] SCRAN provides educational access to digital materials representing British material culture and history; it consists of over 300,000 images, movies and sounds frommuseums, galleries, archives and the media. More information from project website http://www.scran.ac.uk/ .

[32] CORNUCOPIA i san online database of information about more than 6,000 collections in the UK's museums, galleries, archives and libraries.

[33] Project CECILIA is mapping the music resources of the UK and Ireland and its aim is to become an online guide to music collections in British archives, libraries and museums. More information available from project web site www.cecilia-uk.org/ .

[34] More information available from project website www.askaboutireland.ie .

can be used as good practice examples[35]. For example, the initiative Netting Local History whose main objectives are to develop collaboration in the sector of museums, libraries and archives and try out network organisation in the development of public libraries in order to improve the public's access to records on local history by utilising the digital technologies[36] (Hindal, S., Moseid, T, 2001). Also, Danish collaborative projects such as Danish Audio History[37]; Historifyn[38] and NOKS[39] bringing together materials from both archives, libraries and museums, and other cultural and educational institutions with ultimate aim to make different heritage collections accessible and searchable via Internet, should be mentioned.

Across the ocean, among IMLS-funded projects perhaps the largest and most well-known is Colorado Digitization Project (CDP), a state-wide collaborative among cultural heritage institutions whose mission is to enable access to cultural, historical and scientific heritage collections, thereby increasing understanding of the past and informing future generations through digitization[40]. Also, Images Canada is a searchable portal to images of important events, people and objects in Canadian history and presence, held by archives, libraries, museums and universities[41].

ALM initiatives in Croatia

In Croatia, there is a small but growing number of collaborative projects in cultural heritage sector which prove, by their very existence, that professionals working in archives, libraries and museums have recognized the need for and benefits of working together. One of the first joint initiatives materialized in 1997 when the first seminar focusing on the collaboration of cultural heritage institutions was organized jointly by Croatian Archival Society, Croatian Library Association and Croatian Museum Association. This seminar, entitled «Archives, Libraries, Museums – Possibilities for Co-operation Within the Environment of the Global Information Infrastructure»[42] has been organized every year since then and has become a central meeting place for cultural heritage professionals in this region. It originally came out of the idea that libraries need to «open up toward related institutions so that the users could get as complete, precise and professional answer as possible to their question through a singular, coherent approach to various information sources» (Willer, 1997). At that point, all three professional communities became aware that it was no longer sufficient «for each 'memory institution' to seek out paths for solving their most acute problem on their own: how to transform its functions and secure its quality of service in a situation of a sudden technological boom into overall globalization» (Willer, 1997). A joint effort was needed to overcome more painlessly common challenges and provide quality service to ever more demanding useres. Thus, the main objectives of the seminar were, and still are, to «reasearch, present and discuss a whole range of issues, both theoretical and practical, in the vast field of interoperability within cultural heritage sector, as part of the global information infrastructure context» (Willer, 1997). The purpose of the seminar is to «bring together experts who work with theoretical assumptions and their application in the automatized processing and usage of materials in archives, libraries and museums, to motivate the participants to exchange their

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[35] For example, at 69th IFLA Conference in Berlin in 2003, a so called LAMBRARY was presented i.e. local library, archives and museum located in one building in Gjerdrum, Norway.
[36] One of the well-known services offered within this scheme is a digital reference service called *Lokalhistorisk Spørjevev*
[37] Available at http://www.statsbiblioteket.dk/dlh/
[38] Available at www.historifyn.dk
[39] Available at www.noks.dk
[40] CDP's Mission and strategic plan are available at project site http://www.cdpheritage.org/about/mission.html .
[41] Available at http://www.imagescanada.ca/index-e.html
[42] Seminar website is http://public.carnet.hr/akm/english/index.html .

ideas, knowledge and experience as well as to recognize the fields and levels in which co-operation is possible in creating and accessing information» (Willer, 1997).

Ever since the first seminar, practical workshops have attracted many participants because it became evident that in such environment «the idea of possible co-operation between archives, libraries and museums might be best tested in concrete situations and examples» (Willer, 1997). One of the conclusions of the second seminar was that only discussion of common issues is not sufficient and that joint working groups, more actively involved in solving specific problems, should be formed. Their task would be to work more intensely on concrete problems and tasks facing all three sectors. Thus, since standards and metadata, and the issue of interoperability in general have been identified as burning issues for all three communities, a working goup focusing on those topics has been formed. Its members come from all three professional communities and their work can be seen at seminar home page. Furthermore, a small glossary of basic archives, library and museum terms and Internet glossary have been developed and are also availabe on the seminar web site. Also, the creation of informal communication modes, such as online dicussion list, which would provide a useful way of exchanging ideas and information on various topics, is planned. This seminar has been well received by the professional communities in Croatia which is evident from its ever growing audience and many practical benefits for the sectorm, some of which were described earlier.

Apart from the ALM seminar decribed above, there are several other collaborative small-scale initiatives and projects in Croatia, namely, the digital collection *Silvije Strahimir Kranjčević*[43] and *Petar Preradović on Internet*[44]. Both focus on popular Croatian 19th ct. poets and bring together material from libraries, archives and museums.

Initiative for the web site dedicated to Silvije Strahimir Kranječević came from Daniel Mišćin, research assistant at Zagreb University. Through a large and diverse body of archives, library and museum material access to Kranjčević's life and work is facilitated: we can read his poems in original writing, examine his private and official correspondence (and that of his family members), listen to his poetry, watch videos on his life and work, see photographs of his family and from his family album, read what was written about him in his time, read critical commentaries of his literary work, or embark on a more serious research by reviewing exhaustive bibliography etc. The collection can be either viewed according to thematic areas (biography, legacy, poetry, speeches, correspondence, study etc) or searched by simple input queries which can be limited to either the whole collection or to certain thematic areas. Technical support has been provided by Croatian academic research network (CARNet).

Petar Preradović on Internet is, in words of its enthusiastic authors – public librarians, a database on local 19th century poet Petar Preradović whose aim is to promote his work in an interesting and innovative way and bring it closer to Croatian citizens. It consists of short text files, photographs, autographs, sketches and illustrations, music sheets, audio and video records, critical commentary and bibliography of his work. All material is obtained from Bjelovar public library, National and university library in Zagreb and Preradović memorial house – museum in Grabrovnica. Although very similar to Kranjčević project content-wise, this database is a more recent venture (2004) and has been produced by a local commercial company. In their introduction, authors, emphasize that it is their wish that other local history departments in Croatian public libraries, inspired by their initiative, develop similar content in order to develop one integrated database on Croatian literary men and women accessible for eductional and information purposes.

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[43] Available online at http://www.sskranjcevic.hr.
[44] Available online at http://preradovic.bjelovar.com.

A third initiative, digital local history collection at Slavonski Brod Public Library [45], came also from a local history department at the public library in Slavonski Brod. They developed their digital library collection as a stand-alone pilot-project based on the open-source, multilingual software Greenstone Digital Library (GDL).[46] The main goal of this one-man pilot-project was preservation of rare and fragile library material held in the local history collection. This digital collection combines text and old postcards representing historical and cultural sights of Slavonski Brod.

Throughout the digitization process, a number of problems arose: resolution of scaninng, OCR software, etc. Following procedures have been conducted in building this digital library collection:

- ❑ Implementation of digitized material into digital library software environment
- ❑ Assigning unique identifiers to documents
- ❑ Organization of content for searching and browsing
- ❑ Customization of the user interface

One of the best features of Greenstone is the use of UNICODE – universal code page – allowing any language to be processed in a consistent manner. Since Greenstone interface can be presented in multiple languages, new languages can be added relatively easy. So, in collaboration with collegues from University from New Zealand, Croatian language has been sucessfully implemented. Also, Greenstone allowed creators in Croatia to add necessary metadata sets (through the extra interface – Greenstone Editor for Metadata Sets).

Greenstone Digital Library software is only one of the standard software solutions for a present-day digital library and is found adequate for small cultural heritage institutions which cannot afford expensive and often not fully adequate complex digital library softwares. Pilot-project carried out in Slavonski Brod public library relied on this free accessible software that helped gain experience for planning and implementation of future digital projects in Croatia and face the challenges posed, in particular those of technical nature. It has also identified knowledge and skills needed by librarians and IT specialists if they want to keep pace with current developments (Bosančić, *in print*). It is now planned to exploit and apply the knowledge of archivists, curators and librarians in order to use this software, with minimum resources, in developing digital libraries which will present rich Croatian heritage.

Croatian digital projects described above show that in most cases the initiatives for such collaborative ventures come from an individual. In interviews with their initiatiors, authors and project managers, it became evident that lack of resources (staff, knowledge, time, finances, technology) can be overcome by enthusiasm and good will. It is also symptomatic that two out of three authors emphasizes that its their aim to encourage others to undertake similar projects, which would ultimately result with a large comprehensive digital library of national significance, and that they want to share their experiences with others colleagues in cultural heritage sector.

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[45] This collection is available at http://www.gksb.hr/web_digitalna.htm .

[46] Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato, and developed and distributed in cooperation with UNESCO and the Human Info NGO. It is open-source software, available free of charge from http://greenstone.org under the terms of the GNU General Public License.

Conclusion

Despite many differences, archives, libraries and museums share the same goals and show many common features. They collect, preserve and facilitate access to world heritage and information about it, in all forms. There is evidence to show that during their long histories these institutions have converged on several occasions. Boundaries that have, more or less, always existed between these three professions seem to be diminishing and disapearing altogether under the influence of information and communication technology and new user demands.

 «Activities, products and services of memory institutions have become intertwined, just as it has already occurred on several occasions in earlier stages of their development» (Aparac et al, 2003, *in print*), and «the convergence among memory institutions and their related disciplines has thus been mainly provoked by the the emergence and use of networking information technologies and by growing demand of end-users to access and use the stored cultural heritage» (Aparac-Jelušić, 2001).

As Rayward has pointed put, «being able to respond to contemporary challenges effectively may largely depend on how well the different kinds of «professionals» are able to transcend the limitations that their highly developed cultures impose on them so they can work across the ever diminishing bundaries that separate them» (Rayward, 1995).

Today, it can be said that the political will and professional awareness and effort, evident from numerous collaborative initiatives world wide, to bring all players from cultural heritage sector together in order to provide best services to users, is here.

Exchange of ideas among professionals working on digital projects whose aim is preservation and presentation of heritage is extremely important and neceassary – this paper has tried, thus, to present some of the efforts and experiences from Croatia.

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