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DIGITAL REPOSITORY CULTURAL HERITAGE OF KOPRIVNICA: AN EXAMPLE OF LOCAL PARTNERSHIP

Abstract: The aim of this article is to highlight the importance of partnership approach in digitization of local cultural heritage. The Public Library “Fran Galović” Koprivnica has already initiated several digitization projects, and that experience was valuable in creating the digital repository *Cultural heritage of Koprivnica* through the partnership between the local heritage institutions from Koprivnica and Varaždin: the Public Library “Fran Galović” Koprivnica, the State Archives in Varaždin and the City Museum Koprivnica. A very important partaker in all digitization projects has been the scanning and digitization company ArhivPro that developed, tested and applied new technological solutions. The basic goal of the digital repository *Cultural heritage of Koprivnica* is to promote the local community unique treasures, protect the library, museum and archival materials, and enable their wide accessibility and easy search of the related data. The digital repository *Cultural heritage of Koprivnica*, which has been the result of successful partnership of three local organizations, points to the importance of creating local cultural heritage digitization projects by a wide network of collaborations and partnership at the local level (institutions and individuals). This kind of cooperation resulted with a consciousness of the joint contribution and ownership over the final product of digitization in preserving and safekeeping the native identity in an overwhelming globalization processes.

Keywords: digitization, digital repository, local community, cultural heritage of Koprivnica, partnership approach, Public Library “Fran Galović” Koprivnica, State Archives in Varaždin, City Museum Koprivnica, ArhivPro

1. Introduction

The Public library “Fran Galović” Koprivnica has been an initiator and coordinator of digitization projects of local cultural heritage since 2007, including local, cooperative digital repository *Cultural heritage of Koprivnica*, launched at the end of 2011. Digitization activities are part of the Library’s strategic guidelines. The Library acts as a local community cultural, information, social and communication center that supports education, lifelong learning and creative leisure-time activities under the slogans *Literacy for all* and *Library open to everybody*. Promoting the use of new technologies and supporting digital literacy in local community have been among Library’s priorities in the last two decades [18].

1.1. Library profile. The Public Library “Fran Galović” Koprivnica serves inhabitants of Koprivnica, a medium-sized Croatian city (population 32,000) and Koprivnica-Križevci County (population 122,000). Koprivnica is situated in the northwestern, industrially most developed part of Croatia. The Library has 22 employees in total (16 of them are professional staff). The organizational structure includes departments and services for children and adults, a science department, reading-room, mobile library, acquisition and cataloguing, county development service and administrative/technical department. It has about 9,000 registered members, nearly 140,000 books, 105 subscriptions to periodicals, 6,000 non-book materials and 124,000 visits per year [13].

1.2. Library’s efforts in digitizing local cultural heritage as part of the city’s strategy. In 2007, the Library started with a systematic project approach to digitizing the hometown

printed cultural heritage, after the Ministry of Culture had initiated the National Digitization Program of Archival, Library and Museum Holdings [4]. This replaced *ad hoc*, random initiatives in digitization of cultural heritage in Croatia. In 2008, on the initiative of the Public Library “Fran Galović” Koprivnica, digitization of local cultural heritage became a part of Local Agenda 21 of the City of Koprivnica, a long-term program of sustainable development aiming at improving the quality of life in the local community [15]. It has been an important frame for future heritage digitization projects in the Koprivnica local community. Namely, from the very beginning local authority has supported homeland heritage digitization, being aware of its value in preserving and safekeeping the native identity.

Over time, the Public Library “Fran Galović” Koprivnica has been profiled as a leader in digitization of homeland cultural heritage in the local community. Cooperation has been the key factor in all digitization projects. Today, the partnership approach is a step forward in developing a common information place instead of isolated digitized collections, which enable users to browse and use different sources in one integrated place. The digital repository *Cultural heritage of Koprivnica* [5] is not only a result of successful partnership between three local cultural institutions – the Public Library “Fran Galović” Koprivnica, the State Archives in Varaždin and the City Museum Koprivnica, but also a new quality stage in the organization development and its digitization activities.

1.3. Definition of digital repository. Digital repository is one of the terms that, besides referring to electronic repository, digital library or digital archive, is used also for very similar electronic systems, which are used for electronic data storage. Electronic repository is an equivalent term to digital library. It indicates an organized collection of electronic objects that may or may not meet all the requirements, principles and recommendations for the conservation of objects, their structure and context, as well as all their important characteristics such as authenticity, reliability, integrity and usability for a longer period of time. Such digitized repositories can be, and usually are, stored in an institution, they are related to its context and dependent on its functions [1]. The repository is based on the idea of constant updating of documents and the idea of continuance and it is never a closed database [3]. During the development of the repository, it is important to define well its content and the procedure of document storage, access and terms of use [21].

2. Previous digitization projects of Koprivnica cultural heritage

2.1. Glas Podravine newspaper collection 1950-2007 (2008). Digitization of the local weekly newspaper *Glas Podravine* [10] was the first local digitization project which focused on the cultural heritage, and was conducted as part of the National Digitization Program of Archival, Library and Museum Holdings in 2008. This newspaper has the longest and continuing tradition of publishing in Koprivnica, as well as a huge socio-cultural value for the local community. It is a source of information on local community life primarily for education, science, professional and informational needs. Because it was a part of the Library’s protected collections and was not loaned outside the Library premises, it was chosen for the application of the newest technological potentials to enable wide accessibility of newspaper heritage collections to the public. The result was a searchable database with an electronic copy of this newspaper of 58 annual volumes, 2,643 editions and 40,784 pages. The database provides easy, transparent search with requested information displaying without delay. Programing was done in PHP, JavaScript, while the scanning format was JPG. Unlike digitization projects in Croatian libraries before 2007, this project – for the very first time in Croatia – enabled users to view and search by keywords in addition to other search criteria. Search options include

keywords, years, volumes and issues in two ways – browsing and viewing images in different sizes (zoom, enhancement) and full text with Optical Character Recognition (OCR) tool. Since the OCR view is not fully accurate and errors in OCR-read text are possible, scanned samples are used for an accurate reading.

2.2. *Koprivnica newspapers 1950-2008 (2009)*. The project *Koprivnica newspapers 1950-2008* [6] was a continuation of the local weekly newspaper *Glas Podravine* pilot project. Digital search in the Koprivnica newspapers' database provides access to more than 50,000 newspaper pages from nine dailies and weeklies that were published in Koprivnica from 1950 to 2008. Those digitized newspapers give a rich picture of the social, cultural, political life and circumstances of the local community since the Second World War. A step forward was application of the Microsoft Silverlight high-resolution view of scanned data. It provided a high-speed transfer of large data, a quality view, fast and accurate search, and user-friendly browsing with an image interface. The users could automatically mark the searched keyword from the image, not just in the OCR-text, as before. The biggest challenge was contacting the long-gone publishers to obtain publishing rights. The problem of an unintentional copyright breach was resolved by the Guidelines on digitized material. The Library announced a public call to interested parties to report irregularities or misuse of rights for corrections, since the *Koprivnica Newspapers 1950-2008* web portal follows the principles of open access to knowledge and information.

2.3. *Fran Galović Online (2009)* was the third digitization project of the Public Library "Fran Galović" Koprivnica [8]. It presents Fran Galović, poet and the best known native writer, whose name the Public Library has borne since 1991. The main goal was the promotion of his life and work and making available this important collection for education and science needs. The Library has enabled a virtual search and browsing through the collection of over 2,000 digitized pages of Galović's poetry, plays, short stories, essays and literary criticism. The Portal contains author's detailed biography, bibliography and his photographs from the Library's own local history collection *Caproncensis*.

2.4. *Koprivnica postcards collection (2011)*. A digitized collection of Koprivnica postcards with native motifs [7] is comprised of two separate collections: close to 300 postcards from the Public Library "Fran Galović" Koprivnica history collection *Caproncensis* printed from 1899 all the way to 2006; and another collection containing close to 200 postcards from a private collector Zlatko Ivković, which covers the period from 1898 to 1977. The postcards depict the city of Koprivnica and its vicinity, their growth and changes from the late 19th, through the 20th and the beginning of the 21st century, showing main city squares, houses of the prominent citizens, a music pavilion in the city park, public buildings such as hospital, schools, churches, industry and crafts, etc.

Postcard preview was made in a separate web interface and integrated in OPAC. Every picture has imprinted EXIF data with basic catalogue metadata. All postcards can be searched by metatags and full text. Only postcards' front page can be viewed to protect personal information from the back of postcard. Pictures cannot be downloaded and all have water stamp.

3. Digital repository *Cultural heritage of Koprivnica*

Cultural heritage of Koprivnica was launched in 2011 as a local and cooperative digital repository [5]. It represents a unique and central place which collects the results of all previous local digitization projects, and provides systematic and structured way of

aggregating miscellaneous heritage materials that will be digitized in the future. It functions as an open source to knowledge and information on local community and enables a public access to local cultural heritage.

In comparison to the previous digitization projects conducted by the Public Library “Fran Galović” Koprivnica, the work on the digital repository *Cultural heritage of Koprivnica* has been a step forward in terms of both technology and partnership. It complies with the OAI-PMH protocol, while its metadata model complies with standards of Europeana Semantic Elements Specification Version 3.4. The repository is suitable for easy access, view and browsing by all available browsers and search engines like Internet Explorer, Firefox, Chrome and others. Digital material, which was scanned in high resolution, has either Microsoft Silverlight or JavaScript as an alternative view option.

Although the cooperation with numerous institutions and individuals has been the key factor in all local cultural heritage digitization projects conducted by the Public Library “Fran Galović” Koprivnica, the partnership approach between local heritage institutions - public library, city museum and regional archive, has been a step forward in the current work on the digital repository *Cultural heritage of Koprivnica*. The basic principle of such partnership lies in the modern concept of institutions that collect, process, and preserve cultural heritage artefacts. Specifically, archives, museums and libraries use the cutting-edge technology to provide wide availability and access to their collections and data (protection and searchability). Regarding availability of the information sources, historical documents or artefacts, the users generally do not care which institution they are located in or which institution preserves them. The most important is to find the information they need easily and quickly and use it [20].

4. Development of partnership approach

Organizational development of the partnership approach in digitization of cultural heritage of the local community of Koprivnica can be illustrated by Anne R. Kenney’s and Nancy Y. McGovern’s five stages model, despite the fact it primarily referred to an organizational response to digital preservation [14].

4.1. Acknowledge: Understanding that cultural heritage digitization is a local concern.

The first stage was recognizing the problem. The librarians from the Public Library “Fran Galović” Koprivnica have recognized that their task is to enable the widest public access to preserved local cultural heritage by using the cutting-edge technology. Because of the lack of professional education in digitization process, they learnt at domestic and international conferences, as well as at workshops. Besides in-service education activities, they have permanently promoted the importance of digitization of local cultural heritage in local community. For example, one of the first activities was to organize the round table *Homeland cultural heritage digitization – Local values in the EU context*, held in 2007, with joint participation of the local library, museum and archive experts, the experts from the Ministry of Culture’s National Digitization Program, as well as primary and secondary schools pupils, who presented their digitization attempts with local community significance [19].

4.2. Act: Initiating cultural heritage digitization projects. The second stage in institution’s development was to act and initiate digitization projects. The Public Library “Fran Galović” Koprivnica conducted four digitization projects focusing on the local cultural heritage.

In the first digitization project – *Glas Podravine newspaper collection 1950-2007* the Library cooperated with the newspaper publisher, who assigned the publishing rights to the

Library for this public, non-commercial use. The local museum and the National and University Library in Zagreb, as well as several citizens from Koprivnica helped to create the so-called *ideal copy* of the digital newspaper. Local media regularly informed about the project. The Ministry of Culture and the City Council of Koprivnica financially supported this project as well as the second project *Koprivnica newspapers collection 1950-2008*. Cooperation with long-gone publishers to obtain publishing rights was also established. At the *Fran Galović Online* project, the Library primarily cooperated with local companies to get the specific graphic and web design. The Library and the City Council of Koprivnica financially supported this project. The partnership and networking were very important parts of the *Koprivnica postcards collection* digitization project as well. A private collector of Koprivnica postcards, Zlatko Ivković, allowed digitization of his private postcard collection. In 2012, this private collection was purchased and now the Public Library “Fran Galović” Koprivnica owns it. This project was financially supported by the Library fund and the County Tourism Board.

4.3. Consolidate: Moving from projects to programs. Moving from particular projects to partnership programs could be followed by the example of the digital repository *Cultural heritage of Koprivnica*. Unlike previous separate digital library projects, the repository provides a unique platform and central place which brings together the results of all previous local digitization projects, as well as enables future aggregating of miscellaneous heritage materials in systematic and structured way. Currently it contains five new digital collections: *Glas Podravine newspaper collection 2009-2012*, *Podravski zbornik yearbook collection*, *Koprivnica Postcards collection*, *History recollections – archive* and *Graphics collection*.

4.4. Institutionalize: Incorporating the larger environment. Establishing the digital repository *Cultural heritage of Koprivnica* is an example of including wider surroundings in programs of rationalization in digitization and preservation. A partnership between local cultural heritage institutions – the Public Library “Fran Galović” Koprivnica, the State archive in Varaždin and the City museum Koprivnica has been an important prerequisite. Besides, a local company for scanning and digitization, a local newspaper publisher and the County Tourist Board are involved in the program. The patron is the City Board of Koprivnica, while the Public Library “Fran Galović” Koprivnica is the coordinator. Future plan include developing partnership approach to create a wider network with local institutions and individuals in Koprivnica and its vicinity such as historians and art historians, tourist offices, history and artistic associations, folklore societies, etc.

4.5. Externalize: Embracing inter-institutional collaboration and dependency. The three institutions that accepted inter-institutional cooperation and dependency in working on the digital repository *Cultural heritage of Koprivnica* have defined common goals, activities, tasks and responsibilities. The common goals are the promotion of Koprivnica and the surroundings, information and education about local cultural heritage as a local community value by using cutting-edge technology, preserving originals, and providing wide access and easy retrieval of the digitalized materials. Activities are based on a combination of common professional in-service training and operative meetings twice a year, where all included partners plan the digitization priorities, analyze the realization and evaluate the results. Tasks and responsibilities have been divided among the three partners – public library, archive and museum. Each of them has prepared a list of materials for digitization from their collections. The Public Library “Fran Galović” Koprivnica, the States Archives in Varaždin and the City Museum Koprivnica are the project partners and copyright owners. Their representatives are members of the repository editorial board. Every partner is responsible to provide finances for

digitization of its materials, as well as to supervise the entire realization of digitization. For example, *History recollections – archive* [12] was created by the State archive in Varaždin, while weekly newspaper *Glas Podravine* [9] and *Postcards collections* [17] were created by the Public Library “Fran Galović” Koprivnica. The City Museum Koprivnica and the Public Library “Fran Galović” have conducted together the project aimed at the digitization of the yearbook *Podravski zbornik* (from 1975 onwards), the so-called *Encyclopedia of the Podravina region* [16] and *Graphics collection* [11]. A very important partaker in this partnership is a local company ArhivPro, which specialized in scanning and digitization and testing new technology in all the above mentioned cultural heritage digitization projects in the Koprivnica local community. ArhivPro is becoming one of the leading companies involved in cultural heritage digitization projects of many other Croatian institutions [2].

5. Conclusion

The digital repository *Cultural Heritage of Koprivnica* shows that not only digitized materials but also a wide network of collaborations and the resulting partnerships at the local level are important for creating a local cultural heritage digital repository. The networking between institutions forms a virtual facility which very well complements the organizational infrastructure of each associated institution. In addition, the partnership has resulted in the construction of the repository richer in content. Providing access to the organized material from a unique access point has resulted in joint planning of allocation of all necessary resources such as equipment, technical knowledge, labor, or finance. This kind of cooperation results in a sense of joint ownership over the final product and contribution of digitization to preserving and safekeeping of the native identity.

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