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Enhancing Visibility of Local Cultural Heritage: Analysis of Web Interaction Platforms of Turkish City Archives

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***Abstract:** As an indicator that shows the existence and the structure of a society, cultural heritage is a concept that is fundamentally based on the transmission of cultural values and objects among the generations. This feature of the concept requires effective use of information and communication technologies (ICT). Libraries, archives and museums are cultural institutions that efficiently use ICT in order to provide value added services for their users. As one of these services, digitization practices contain many decision-making processes for libraries, archives and museums. This study aims to analyze the practices of Turkish memory institutions having responsibilities for the issues related to digitization and digital preservation of cultural heritage objects. In this regard, this study conceptually discusses cultural heritage and libraries, archives and museums as cultural memory institutions and their digitization attempts in the context of the developments in Turkey. In the light of description method, 15 city archives were surveyed via a research instrument. Results reflect that there are some insufficiencies related to current situation analysis, planning and decision-making phases and finalizing digitization projects. Results reflect that there is a need not only for sustainable digitization programs but also for institutional digitization and digital preservation policies in analyzed memory institutions.*

***Keywords:** Cultural memory institutions; cultural heritage; digitization; digitization policies; Turkey*

Introduction

Producing their own cultural values and products within the bounds of possibilities and under the given conditions, societies continue their existence through information resources related to their products and values in line with the social, cultural, political and technological development. The management of these products and values (such as identification, preservation, accessibility and sustainability) is becoming an important process since these values and products have symbolic power reflecting not only social memory but also the history of a given society. Accordingly, national and international regulations regarding the preservation of cultural heritage were enacted and from the year 2000 onwards, institutions such as the Council of Europe and the European Union have concentrated their agenda on the issue (Dağıstan Özdemir 2005, p.20).

Libraries, archives and museums have significant functions in the process of managing cultural heritage. In particular, practices for collecting, organizing and reaching information objects make memory institutions responsible for the cultural accumulation of the society. Within this context, interdisciplinary collaborations have been initiated and units such as conservation, digitization and digital collection have been introduced in libraries, archives and museums with the aim of ensuring the permanence of cultural heritage products.

Libraries, archives and museums which can be referred as cultural memory institutions have begun to take steps to enhance their capacity for digitization, digital preservation and technological infrastructure in order to manage the cultural heritage objects in their collections

and respond to the expectations of users, especially after late 1990s (Astle and Muir 2002). However, methodological differences between countries as well as institutions have been observed during this process. In this respect, it is stated that countries adopted either the universalistic approach claiming that cultural heritage has a universal nature or the nationalistic approach arguing that cultural heritage has a nationalistic character (Ünsal, etc., 2012: 35). Within the framework of administrative practices related to the cultural heritage objects in Turkey, it is broadly accepted that due to the richness of cultural heritage objects owned, the nationalistic view/approach is adopted and in this regard, it is stated that the preservation processes have been prioritized (Bilgi 2010, Çakmak and Yilmaz 2012b). In other words, it can be expressed that countries tend to adopt preservation-oriented nationalistic approach in line with the richness of their cultural heritage.

Cultural heritage objects are known as the objects that create awareness and reflect cultural characteristics of the society. Cultural heritage objects are the objects reflect unique culture of city life. Since cultural heritage objects have seen as the competitive advantage providers among the cities, the importance of sustainable protection and management approaches and strategies about these objects are highlighted in studies (Özcan and Koçsan, 2011, p.98). Studies also show that the scope of cultural heritage conceptually widened as a results of the changes in social, economic and technological approaches. According to literature, architecture based studies published in previous years replaced with broader views that describe civil buildings and their reflections as the memory of the society.

Nowadays, it is possible to include intangible heritage assets, natural entities, environmental factors and artworks into the scope of cultural heritage (Ismepe, 2004). City archives, as the representatives of cultural heritage, develop their collections with various cultural objects and develop services for users. They also deliver services with the aim of providing reuse of the objects. City archives create their collections with every kind of cultural heritage objects compiled by the attempts of state organizations and NGOs (Belge, 2004, p.53). Beyond the contributions to cultural memory, these institutions mostly support innovative approaches and urban design because of the geographic settlements and estimations about their region (Gök and Ünlü, 2010, p.98). In contrast to large-scale cultural memory institutions these institutions have limited opportunities about services, visibility and preservation issues. This is also confirmed and explained in strategic plans published by Europeana and some projects supported by EU. It is also possible to describe city archives without their web pages and web interfaces as one of the “deep memory” institutions those collections are not visible via web-based platforms.

As is in every stage of life, services are delivered according to technological solutions in the field of cultural heritage management as well. In this context, city archives use digital environments for dissemination of their services. The study aims to evaluate presentation of cultural heritage objects and web based systems of city archives in Turkey in terms of their web platforms. In order to achieve the study objectives, a checklist is going to be developed via literature review, human computer interaction and user experience measurement models. Recommendations and required improvements related to visibility of Turkish city archives are presented in the results of the study.

Digitization of Cultural Heritage Objects

When the cultural heritage projects of memory institutions are examined, it can be seen that important measures have been taken to ensure the visibility of the cultural products of the society.

Therefore, memory institutions not only offer solutions to present resources in a reusable format produced in the past reusable by the community, but also are developing various services for the use of new sources, both by creating solutions for presenting objects produced in the past in a format that can be used by the community, and by making quick use of technological opportunities. In this context, digitization is one of the outstanding works of cultural memory institutions for the fulfilment of social responsibilities and functions. Digitization, which is seen as a process integrated with memory institutions, has been explained from various perspectives (Çakmak et al., 2012a, p.421-422). Overall, digitization stands for the process of ensuring the continuity of products in memory organizations.

Concept of digitization, which was first used in 1953 as far as is known, is primarily discussed whether it is a preservation strategy for cultural heritage objects or not, and as a result it is understood that there is a balance between expanding access and long-term preservation in the digitization process (Matusiak et al 2012, p.1173; Digitize, 2013). While digitization practices are important in terms of preserving the authenticity of information objects with cultural value for memory institutions, and increasing access to information objects, they can also be seen as a marketing strategy for the presentation and the promotion of services by the memory institutions (Smith 2006, p.3).

Memory institutions' attitude towards digitization requires providing ubiquitous access to social products in their collections, and involves the preservation and distribution of such products as well as the provision of information, which can be described as one of the key components of the information society, within the bounds of possibilities. In this context, memory institutions have begun to increase their investments in digitization practices since the 1990s (Astle et al., 2002; Manžuch 2009). These practices may include categorization of collections according to particular characteristics of institutions, or digitization of the collection as a whole. On the other hand, memory institutions are capable of implementing these practices by themselves (in-house) or by outsourcing (collections, physical spaces, financial facilities, infrastructure and human resources). In addition, national and international projects can provide important opportunities for digitization practices of memory institutions. It is observed that memory institutions usually have information objects such as manuscripts, maps, newspapers, voices; three-dimensional objects as well as book-type materials within the scope of their digitization projects (Liu 2004; Van Garderen 2007). Moreover, it is known that practices such as digitization of intangible cultural heritage objects are also carried out in memory institutions.

The implementation of digitization applications involves a number of decision-making steps, such as standards to be used by memory institutions, identification of technical equipment and hardware. For this reason, it is stated that digitization practices require a good planning and process specification (Kaiku et al. 2012: 434). In line with this, it is known that organizations such as IFLA publish guidelines related to the procedures that memory institutions need to implement during digitization processes (IFLA 2002; 2015). It is noteworthy that these guidelines address issues both in general terms and specific to the type of information object (such as newspapers, manuscripts and rare collections), and present guidelines for the related decision-making steps. This suggests that types of objects representing cultural memory are factors influencing the process of digitization. In addition to object types, financial resources, technical infrastructure, human resource, and user groups whom institutions provide service can be considered as the other factors affecting this process. Furthermore, preparation of instructive guidelines by the authorized bodies for memory institutions points at the necessity to implement a digitization project in accordance with specific standards, plans and workflow. In this respect,

making strategic plans for the objects to be digitized affects not only success but also the quality of output (Granger 2000).

Legal Practices and Policies on the Digitization of Cultural Heritage Objects in Turkey

Legal and technical aspects are also important for digitisation practices regarding cultural heritage objects in Turkey. Thus, at the beginning of the 2000s, it is stated that legal and technical studies related to this subject are disjointed in Turkey and that mechanisms for systematic and joint actions are needed (Küçük and Alır 2003: 354). Within the scope of legal regulations concerning the management of cultural heritage, Article 63 of the Constitution stands out (Tarih, 1982). This article covers the requirements for the preservation of cultural assets. Furthermore, responsibilities related to the management of cultural assets under the Laws 4848 and 2863 are issued in 2003 by Ministry of Culture and Tourism (Ministry of Culture and Tourism 2003a; 2003b). The National Archives Law, which was drafted in 2007, also stands out in terms of defining duties and responsibilities of the General Directorate of State Archives on cultural heritage products (National Archive Law Draft 2007). The inclusion of the National Archives Act, which was previously discussed as a draft, in the 64th Government Action Plan is an important development in terms of digitization implementations in Turkey (TC Prime Ministry, 2015). Apart from these initiatives, documents commenting on legislative initiatives on digitisation implementations in Turkey, as well as legal regulations and policy documents have been evaluated (Çakmak et al., 2012b). It is also possible to update these evaluations with reference to new publications. Accordingly, some indirect clauses regarding digital information and cultural heritage issues in the Information Society Strategy and Information Society Strategy Action Plan, which covers the period between 2006 and 2010, can be found. In the framework of this Strategy, within the scope of social transformation and under the heading of “high motivation and rich content”, the emphasis was placed on the utilisation of information and communication technologies in order to protect the cultural heritage and ensure its transfer to the future generations (Devlet Planlama Teşkilatı, 2006a). The Information Society Strategy Action Plan, another document published within the scope of the Information Society Strategy, includes the establishment of the Turkish Culture Portal on digital information and cultural heritage, as well as the aim of increasing the interaction between cultural products and users (Devlet Planlama Teşkilatı, 2006b). In this context, it is understood that the issues related to cultural heritage management, which is discussed under these documents, are closely related to the infrastructure.

Distinct from the previous action plans and strategy documents, in the 2014-2018 Information Society Strategy and Action Plan (Draft) acts that are directly address digitisation issues are given place. It is envisaged that processes related to digitisation will be conducted in cooperation with the Ministry of Culture and Tourism, Prime Ministry, YÖK, TÜBİTAK, TSE, Universities, Local Administrations and NGOs. The Plan Draft was updated in 2015 and published under the name of the Information Society Strategy and Action Plan 2015-2018. According to this plan, applications listed under the heading of Open Access to Numerical Information in Cultural and Scientific Qualification, which is the Action no.50, are planned to be implemented between 2015-2017 (Kalkınma Bakanlığı, 2015: 133-134). The clauses expressed in the Information Society Strategy and Action Plan, which also refers to the digitisation processes indirectly, appears in the fifth, sixth, seventh, eighth and ninth Development Plans of the Ministry of Development as well. In line with this, clauses implying digitisation refers to the related aspects of cultural asset digitisation such as identification, promotion, organisation of in-service training, and their transfer to the electronic environment.

The transfer of cultural heritage to the future generations and preservation of national values, survival of cultural assets as well as education and research, are given place within the scope of policy documents regarding the digitisation policies of Turkey. On the other hand, it is understood that development plans lead institutions to consider the use of information and communication technologies in the context of cultural development. For the use of information and communication technologies, digitisation practices can be considered as the basic component of the process. Digitisation is a more concrete process in the Information Society Strategy and especially in action plans, while its importance has been increasingly emphasised in academic publications since 2014. As for the standards that can affect the digitisation of cultural products in Turkey, TS13298 Document Management Standard comes forward (TS 13298, 2015). It is possible to say that this standard, which focuses on document management and digital archive applications in institutions and organisations, will affect the digitisation processes of objects with cultural value, at least indirectly.

Visibility of Cultural Heritage Objects in Shared Platforms and Turkey

Progresses throughout the history of humankind, has emerged because of creative human activities. The preservation of cultural heritage products which emerged as a result of these activities are gaining importance day by day. With the evolve of technology the protection of cultural heritage facilities arises however legal basis for the protection of the heritage issues are still on the agenda. Nowadays violation of intellectual property rights accessible via the Internet and digital media works have increasingly become legal issue as a consequences of rapid developments in technology and acceleration of the internet connections. Decreases in the cost of reproduction of digital technologies and providing cheap and fast distribution of multimedia content arise a serious need for the protection of intellectual property rights. In daily life the situation of the users in access to the information - without knowing what is legal or not legal-increase the conditions of copy and modify (Cappellini, 2006).

Inherited from the past and intended to be bequeathed to the future in the light of different reasons, all kinds of works, as the set of values which belong to a community, which have a physical presence and created by human beings are defined as cultural heritage (Ministry of Culture and Tourism, 2009, p.3). It is a concept that is not only consist of tangible cultural assets but also includes intangible cultural heritage materials (İşçi, 2000, p.29). Museum, archives and libraries are the institutions which are responsible for collecting, protecting and transferring of these materials to the future generations. With the emerging technologies, they have increased their efforts to store and retrieve materials in digital media. In parallel cultural heritage products has become a communication tool at a level of international and intercultural and opened to access various digital platforms. Information services on the digital platform contain technologies, rules, standarts and policies enabling processing, storing, transmitting information whose infrastructure is available and accessing this information when necessary (Tonta, 2003).

In this context digital libraries refer to information resource banks with substantive and well-organised information that can efficiently serve large numbers of people in different geographical locations via advanced technologies (Zhang, 2007). The development of digital libraries and repositories, which is a worldwide sense with huge political and ideological importance for humanity is directly influenced by the provisions of intellectual property law and is exposed to innovation through regulations. The aim is to approach cultures to each other and preserve plurality and diversity. Legal issues about software use, database protection, the collection, digitization, archiving and distribution of protected works are vital for digital libraries and repositories in terms of survival and operation. Thus, the evolution of information technology is

frequently seen as a factor that sets at stake the legal rights of creators and right-holders, as a cause for stricter Intellectual Property Law and legal protection for the initial and subsequent right-holders. (Kallinikou, Papadopoulos, Kaponi and Strakantouna, 2009) The digitization process of cultural heritage works is a process that required to be well planned. In this scope, usage conditions that are created for digital resources should be determined. Furthermore, the protection of author rights should be evaluated within the scope of intellectual property rights (Şahin, 2009, p.51).

It is taken as a goal by the copyright legislation and cultural heritage institutions to make sure that the cultural production is available and understood by each part of society. The fact that the broad public can share in the experience of a common culture is enabled by libraries, archives and museums (Hoorn, 2006) If a cultural heritage institution takes part in digitization projects, the intellectual property laws which it has to enforce means that the institution can safely place information online, in order to stimulate interest in its holdings, without the risk that the published material will be re-used without permission. Nevertheless, the institution also has the responsibility to ensure that it has copyright clearance from the right-holders, and to take appropriate measures to protect its intellectual property rights (MinervaEC Working Group, 2008).

Cultural memory institutions have a vital role for the maintenance of the societies' cultures. In this respect, promotion of cultural objects can be carried out via projects and developed platforms.

Of late, cultural memory institutions develop their collections according to communities' cultural assets and organize them for information needs. They also increase their visibility via cultural memory platforms and regional solutions that serve dissemination of cultural heritage among the societies. In this respect, cultural heritage organizations digitize their collections and describe metadata fields of every single objects in their collections. In parallel with these efforts, different and independent usage of metadata fields expressed as one of the biggest problems of cultural industries (Dedeler Bezirci, Bostancı & Gürel, 2012, p.132). As one of the best practices for dissemination of cultural heritage assets of societies, Europeana describes a data model and explains data structures that will be ingested to the library via by a primer published in 2013 (Europeana Data Model Primer, 2013). It is also stated that Europeana Data Model has three functions, harvest, integrate and expose, for the creation of heterogeneous metadata from different European cultures (Eckert, 2012). On the other hand, philosophy of data model and its relationships with ESE structures were also explained by the studies (Gradmann, Hennicke, Isaac, Meghini & Sompel, 2010). EDM with its ontology allows creation of specialized data models by different institutions and creative industries. Hennicke, Boer, Isaac, Olensky, and Wielemaker (2011) explain in their studies that metadata mapping can be carried out and the data can be converted to EDM from Encoded Archival Description (EAD) a metadata standard used for archival description. Moreover, EDM provides a RDF structure ingested in Europeana and makes object descriptions available in semantic web formats with linked open data elements. It is also reflected as a strategy by the Europeana with the aim of developing European digital library as a data transmission platform as well as an internet portal that presents cultural objects (Eckert, 2012).

Europeana, is an important project in terms of circulation of cultural heritage assets. As a digital library which covers different collections of museums, libraries and archives in various countries, Europeana aims to provide a chance to observe several works like books, pictures, cassettes, films, photographs and historic documents online for every part of society (physically

handicapped, those who cannot afford to go libraries, those who make scientific researches etc.) by carrying the historic and cultural heritage of libraries into electronic environment, a project named “European Digital Library” was initiated by EU in 2005 within the frame of information society action plan 2010. In this project, it is taken as a goal to provide the chance to view the copies of books and historical artefacts, which are carried into electronic environment anywhere online without the need to travel. With this project which is planned to cover museums and archives as well, the European cultural and historic heritage will be protected against extinction by multiplying their copies and they will be transferred to next generation in a safer and less expensive way (Europeana, 2013).

In 2011, Turkey accomplished content sharing with Europeana for the first time. The first resource sharing activity with Europeana was carried out with the AccessIT project that was one of the 7th framework project funded by European Union. Totally 50.000 resources consisting of manuscripts and rare books were aggregated to European Digital Library namely known as Europeana. The collection which contains manuscripts and historical documents copyright conditions are not yet fully elucidated. In this study it is aimed to examine the legal and administrative regulations on the usage, sharing and evaluation of cultural heritage creations developed by Europeana in the context of Turkish applications.

Conditions Related to the Intellectual Property Rights of Cultural Heritage in Turkey

Intellectual property rights is a term that refers to on the rights of creative thinking product. It also refers to inventions trademarks and industrial design models as much as scientific and literary works, musical works, works of fine art and much of the rights of cinematographic works as a result of human creative thinking (Yüksel, 2001, p. 90). Within the scope of intellectual property rights Turkey is a part of 14 agreements so far. The most important agreements are WIPO (World Intellectual Property Organization), Berne Union which was founded with the aim of protecting literature and art works, Patent Cooperation Treaty (PCT) and Paris Agreement regarding the protection of industrial rights and TRIPS Agreement (Taş, 2006, p.91). In the field of intellectual property rights, the application of a second legislation is planned following the alterations made in the Works of Art and Intellectual Law numbered 5846 in order to comply with EU legislation. The studies for being party to WIPO Copyright Law Agreement and WIPO Executions and Phonograms Agreement still continue in Turkey. In order to follow and protect the intellectual property rights and to be used in investigations and prosecutions, the Ministry of Culture will create a common data base regarding this issue. The studies related to the reinforcement of the corporate structure in the field of intellectual property rights will be completed (Taş, 2006, p.91).

General intellectual property rights in the nature of cultural heritage work regulations in Turkey are as follows:

- No:5846 Law on Intellectual and Artistic Works 2011
- Law on Intellectual and Artistic Works replicated Compilation 2012
- Relics to Benefit from Public Institutions and Regulation on the Procedures and Principles (16.10.1986-19253-Official Newspaper)
- Relics of public institutions and organizations benefit from the Regulation on Procedures and Principles Relating to the Amendment Regulation (03.03.2006-26097 Official Newspaper)
- Ministry of Culture Working Manuscript Library, Writing and Printing Works Benefiting from Old Letters Regulation (09.04.2003-25074 Official Newspaper)

- Ministry of Culture Working Manuscript Library, Old Letter Writing and Printing Works in Regulation Amending the Regulation Leveraging (26.12.2003-25328 Official Newspaper)
- Scientific Research, Conduct and foreigners or foreigners who want Filming with the foreign members of the Press on behalf of the Applicant shall be subject Principles (29.04.1988-19799- Official Newspaper)
- Scientific Research, Conduct and foreigners or foreigners who want Filming with the foreign members of the Press on behalf of the Applicant shall be subject Amending Principles (2003/6270 Kar Sayılı- 10 Kasım 2003-25285- Official Newspaper)
- Ministry of Culture and Tourism of the General Directorate of Libraries and Publications Scientific Research in the Library, Conduct and foreigners or foreigners who want Filming with the Foreign Press Release Applicant on behalf of its employees shall be subject to the Directive (12 February 2004 date 601/45)
- Directive on Manuscripts and Old Works in Libraries

Methodology

Websites are primary tools for all kind of institutions aiming to provide services based on the information dissemination. Websites are one of the utmost interaction tools for cultural institutions that carry out their aims with their web services according to changing expectations of users in a more digitalized world. Recently, human-computer interaction is mostly provided with websites empowered with digital interactive tools. Websites designed according to user needs and user expectations are leading their institutions to design more efficient and more user-friendly information services. Additionally, it is possible to say today's information systems are not only interaction tools with humans but they are also important for machine-to-machine interaction in terms of information processing. In this context, we can consider machines as users of implemented information systems. Archives, being a presenter of culture, have vital role to provide access to accurate information via web interfaces that are mainly expected by users. In order to meet user expectations archives implement web based information systems that simply describe their collections with descriptive metadata. Furthermore, it is seen that particularly large-scale archives like national archives implement and developed interactive information systems with their adequate funding and grant opportunities. On the other hand, small and medium sized archives such as city archives have more limited opportunities to provide interaction with their users although they have collections consisting of local cultural heritage objects and they are presents local cultural heritage and characteristics of a society. In the light of this information, it is important to analyse web platforms of small and medium sized archives in terms of improving their interaction opportunities.

According to description of the project and in addition to previous project, this study aims to describe current level of Turkish city archives and their cultural heritage data representation interfaces. In this regard, a checklist consisting of 18 questions developed according to literature review and best practices and research data gathered from 15 city archives by conducting semi-structured interviews with experts in city archives and direct observations. In order to obtain deeper and healthy results, cultural characteristics, standards and models also analyzed.

Findings

The codes and geographical distributions of the city archives analyzed by the assessment tool developed in the framework of the study are presented in Table 1.

Table 1. Geographical distribution of participant city archives/museums

| Code | City Archive | City |
|------|--|-----------|
| P1 | Balıkesir Kent Arşivi | Balıkesir |
| P2 | Bursa Kent Müzesi | Bursa |
| P3 | Tire Kent Müzesi | İzmir |
| P4 | Ahmet Piriştine Kent Arşivi ve Müzesi | İzmir |
| P5 | Kayseri Kent Müzesi | Kayseri |
| P6 | Atılım Üniversitesi Ankara Dijital Kent Arşivi | Ankara |
| P7 | Mudurnu Kent Arşivi | Bolu |
| P8 | Erciyes Üniversitesi Kayseri Araştırma ve Uygulama Merkezi | Kayseri |
| P9 | Eskişehir Kent Belleği | Eskişehir |
| P10 | Çorum Belediyesi Kent Arşivi | Çorum |
| P11 | Sakıp Sabancı Mardin Kent Müzesi | Mardin |
| P12 | Uşak Kent Tarihi Müzesi | Uşak |
| P13 | Ödemiş Yıldız Kent Arşivi ve Müzesi | İzmir |
| P14 | Edirne Kent Belleği Müzesi | Edirne |
| P15 | Koç Üniversitesi VEKAM | Ankara |

Firstly, organizational structures of city archives analyzed in the study. According to gathered data, twelve archives are state institutions and three archives are in private archive status. Analysis also show that municipalities and universities are involved in city archive initiatives.

According to the findings, all of the urban archives analyzed have a website. The fourteenth of these websites use the name of the city where the city archive belongs to when the city archives belong to it. Findings reflect that all of the analyzed city archives have a website. Fourteen of these websites have a unique web site address and one website was established as a subdomain of the governing body. Language options provided for user interaction in city archives were also analyzed in the study. In this regard, eight city archives present their content in only Turkish while seven city archives provide multilingual content by using Turkish and English. Besides, only four city archives use social media platforms for interactions with users.

Analysis of city archives' web pages regarding their accessibilities reveal that websites of twelve city archives can be displayed by mobile platforms and three websites is not compatible with mobile platforms. It is also understood that all web sites analyzed in the study inform users about events carried out in the city archives and they also provide information about the location of the city archives.

It is examined in the study that whether the web platforms of city archives allow users to search in the collections. Findings show that seven city archives have search function in their web platforms. These archives allow users to search in the collection of city archive by elements such as keyword and title. Eight of analyzed city archives do not have a search option in their web pages. Information provided in search results of city archives are given Table 2.

Table 2. Provided information in search result pages of city archives

| | Title | Description | Date | Thumbnails | Tags, keywords | Location |
|-----|-------|-------------|------|------------|----------------|----------|
| P1 | | | | | | |
| P2 | | | | | | |
| P3 | | | | | | |
| P4 | ✓ | ✓ | ✓ | | ✓ | ✓ |
| P5 | | | | | | |
| P6 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| P7 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| P8 | ✓ | ✓ | ✓ | | | ✓ |
| P9 | | | | | | |
| P10 | ✓ | ✓ | ✓ | | | ✓ |
| P11 | | | | | | |
| P12 | | | | | | |
| P13 | | | | | | |
| P14 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| P15 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

As is displayed in Table 2, all city archives established search interfaces provides titles, descriptions and dates of cultural heritage objects in their collections. Moreover, only four city archives presents thumbnails for the cultural heritage objects. Five city archives gives tags and keywords in their search results screens. Additionally, all city archives having search interfaces allows users to sort search results by a particular criteria (i.e. date, title, etc.).

Provided information related to collections of city archives by browsing options is also analyzed in the study. Findings show that all analyzed city archives provides descriptive information about which collections they have. It is also seen that some city archives established browsing options in their web platforms although they do not have a search interface. The metadata elements that are provided by city archives in browsing options are displayed in Table 3.

Table 3. Descriptions and metadata elements displayed for browsing cultural heritage objects

| | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 | P13 | P14 | P15 |
|-------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| Creator | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ |
| Title | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ |
| Description | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ |
| Identifier | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ |
| Subject | | | | ✓ | | ✓ | ✓ | | | | | | | ✓ | ✓ |
| Coverage | | | | | | | ✓ | | | | | | | | ✓ |
| Type | | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ |
| Collection name | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | | | | | ✓ | ✓ |
| Links to Digital object | | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ |
| Exhibition notes | | | | | | | ✓ | | | | | | | | ✓ |
| Rights | | | | | | | ✓ | | | | | | | | ✓ |
| Date | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | | | ✓ |
| Citation information | | | | | | | ✓ | | | | | | | | |

According to findings given in Table 3, eight city archives allow users to browse collections. In this regard, it is possible to say that one city archive in the study does not have search interface but it has a browsing options. Analysis reveal that all city archives provided information via web platforms use Creator, Title, Description, Identifier and Date fields. Furthermore, seven city archives provide collection name while six city archives use Type field in their description processes of cultural heritage objects. On the other hand six city archives gives links to digital objects. Analysis also reflect that fields like Coverage, Rights, Exhibition Notes and Citation Information are preferred by a few city archives. Additionally, it is seen in Table 3 that two city archives (P7 and P15) describe their cultural heritage objects in more detail.

Lastly, it is analyzed that whether city archives provide their description information of cultural heritage objects in open data formats. Findings reveal that only one city archive allows users to download bibliographic descriptions of cultural heritage objects as open data. It is also remarkable finding that only five city archives use a metadata standard for their description processes.

Conclusion

The management of cultural heritage objects consists of interrelated decision-making and implementation processes. It is also highlighted that local cultural heritage objects are generally represented at low levels in local heritage institutions. In contrast of large sized cultural institutions, small and medium sized institutions attempt to make cultural heritage objects accessible with very limited opportunities. Furthermore, the report titled Europeana Strategic Plan 2015-2020 highlights that only 10% of whole European cultural heritage objects were digitized and only one-third of this 10% (or approx. 300 million objects) is accessible online. It would not be wrong to say that a significant part of these cultural heritage objects is stored in small and medium sized cultural heritage institutions (i.e. city archives, municipal libraries, house galleries) without presenting them online environment. On the other hand, cloud computing technologies, metadata standards and integrated collection management systems provide many advantages to

make cultural heritage objects accessible. Additionally, describing cultural heritage objects with metadata elements and creation of bibliographic records for them supports cultural heritage institutions in terms of preserving original copy, increasing the use of digital copies and web platforms, and providing reputation. Like other countries in the world, Turkey also enacted legal and administrative regulations regarding the management of cultural heritage objects. However, these regulations are usually made by focusing on the identification, preservation and usage aspect of the cultural heritage objects.

Emergence of technological possibilities and changing user expectations uncover the needs related to improve web-based applications for managing cultural heritage objects. Fifteen city archives are analyzed within the scope of this study in order to describe how they present cultural heritage objects and resources via web based platforms. In this regard, literature on digitization applications, cultural heritage objects and city archives were reviewed as well as legal framework. As a result of these studies, an assessment tool contributing to analyze web services and web based interaction platforms of city archives was developed. The assessment tool includes 18 questions about metadata descriptions, search facilities, and use of web platforms. The results of the analysis reveal the elements that are prioritized by the institutions for presenting their activities and cultural heritage objects in their web based platforms. In addition, the results also reflect the online visibility issues of local cultural heritage objects in the collections of analyzed city archives.

The results of the survey highlight that awareness levels regarding the providing visibility of cultural heritage objects show differences among the city archives. In this context, it is seen that some city archives do not use web platforms for describing cultural heritage objects while some integrate such platforms with international metadata standards. Accordingly, it is possible to say that cultural heritage objects that are not described via international standards and not included in web platforms keep their existence as a hidden treasure. Their visibilities cannot go out of the physical environment as well.

On the other hand, a significant part of the city archives that provide access to cultural heritage products in their collections via web pages do not use international standards. However, they only list their cultural objects according to some attributions that can be easily transform to a metadata field. This situation can also be considered as a negative approach to increase the visibility of cultural heritage products by search engines or interoperability protocols. It is also a remarkable result that license models or right statements are used by only two institutions in description levels. In this regard, it is possible to say that there is a need for improvements in thirteen city archives for providing information about rights and usage conditions.

Results also show that small number of city archives use geographical coordinates, historic place names, and rights in their description processes of cultural heritage objects. It is seen in the results that two city archives describe their cultural heritage objects in detail by international metadata standards, and one of them is accessible through Europeana. In the light of the results, it would not be wrong to recommend that the use of collection management systems supporting open data formats and interoperability will contribute to increase the visibility of cultural heritage objects. They can also be efficient for impact measurements by their reporting capabilities such as usage statistics. On the other hand, in-house solutions, which are implemented with limited opportunities, meet the short-term needs of the inventory information for cultural heritage objects but these objects keep their existence in physical environment without recognized by search engines and crawlers.

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