Overview of the Digitization Policies in Cultural Memory Institutions in Turkey

Tolga Çakmak

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Abstract: The advances in information and communication technologies have permitted societies to produce, store, arrange and effectively benefit from information in different environments. These advances have necessitated both the use of new environments for the production of information and transfer of information produced in other environments into the new ones. Cultural memory institutions fulfill an important function in transmitting information reflecting cultural values of a society to the future generations and in enabling its effective use by transferring already existing information into new environments. Cultural memory institutions realize these functions on the basis of policies in which they define digitization processes. In this framework, this study deals with the policies developed by cultural memory institutions for digitization practices and analytic studies of the issue; and it investigates the situation in Turkey through document analyses within the scope of information and culture policies. The results of the study show that there are considerable differences in digitization practices between Turkey and other countries and that, in spite of the many projects on digitization, there are no policies in Turkey which define digitization processes on an institutional or national scale.

Keywords: Digitization, digitization policies, culture policies, information policy, Turkey

Introduction

Information diversifies continuously due to technological advancements. This diversity and rapid increase have affected societies in many respects. The developments enable the societies that use information effectively to advance and steer scientific developments and innovations. In this development process, information and communication technologies have been an important means for using information multidimensionally: processing, storing, preserving, distributing information; evaluating information for business processes and reusing it when required. As information and communication technologies have such an important function, information has become a factor establishing competition in social and institutional dimensions and even an overwhelming parameter in this competitive environment. In this process, not only possessing information but also using, processing and transferring it with appropriate technologies and formats have proved to be so important that they are incorporated into national information policies.

Since their establishment, cultural memory institutions such as archives, documentation centers, libraries and museums have been conducting studies in order to obtain, organize, preserve and share information resources for public needs. States and institutions have developed and implemented policies for using information resources within the framework of existing infrastructure and technologies. Among these policies, digitization efforts developed and implemented by cultural memory institutions command our attention. Cultural memory institutions take part in digitization efforts for protecting cultural heritage of society and transmitting it to future generations, and they act according to these policies.

This study deals with such digitization efforts carried out by cultural memory institutions in Turkey and the institutional and national policies developed within this framework.

Cultural Memory Institutions and Digitization

Institutions such as libraries, archives and museums have important functions in the protection of cultural heritage and making it available for the benefit of society. These institutions have recently come to the forefront with digitization efforts for the sake of realizing these functions. Among cultural memory institutions, libraries have invested in digitization projects since the 1990s and have increased their investments for these projects in order to facilitate access to the sources (Astle & Muir, 2002). Within this framework they make use of newspaper archives, maps, music collections, works of children literature, coins, historical documents and video recordings that have cultural and

international importance (Liu, 2004). The digitization projects carried out by national libraries, in particular, have led the states to prepare guidelines for digitization and to develop national information policies.

There are various conceptions of the scope of digitization, which is defined as transferring materials (print sources, photographs, slides and 3D objects) in a variety of environments into a format that can be viewed in digital environment (Astle & Muir, 2002). Digitization can also be defined as a "conversion process of physical or analogue materials such as paper documents, photographs or graphical materials into an electronic environment or into images stored in electronic environment, or in general terms, conversion of unconfigured form that cannot be detected by electronic systems into the configured form that can be detected in the electronic environment" (Yılmaz, 2011, p. 118). In another study, digitization is described as a process which is composed of stages of digitization, scanning and capturing, processing, storing and access (Küçük & Soydal, 2003). On the other hand, it is emphasized that digitization practices cover not only the scanning process, but also emulation and migration practices in order for the data to be transferred across digital environments (Smith, 1999). According to another approach, the concept "digital" stands for the language used by computers, but "digitization" can be defined as "computerization" (tcom, 2011). In light of these definitions, digitization practices are also accepted as a process of collecting, preserving and distributing cultural assets by cultural memory institutions (Bašić, Hasenay & Krtalić, 2010; Valm, 2007). With their digitization projects, cultural memory institutions aim to realize the following goals for the sake of both the materials they possess and the information services they offer (IFLA, 2002; Ministry of Culture of the Republic of Croatia, 2006; Bašić, Hasenay & Krtalić, 2010);

- Enabling the users to access the materials directly, to use them, to publish them in line with copyright agreements and to access many collections without paying a visit to the related institution,
- Increasing access to collections composed of rare works and manuscripts,
- Minimizing the physical use of sources that can be ruined in the course of use such as rare works and manuscripts, and taking precautions,
- Preserving the original source by using the digital copies,
- Creating the digital content for research, education and publishing activities, and for the protection of cultural heritage,
- Raising awareness of new user groups about online use of collections,
- Developing additional information services for users,
- Ensuring and developing the unity of collection,
- Improving the technical infrastructure of the institution and ensuring their services with a systematic approach.

The advances that societies have experienced in education, economic and cultural systems in the 21st century have featured information in a digital environment. This prominence is also the result of the speed, accessibility and easy processability of the digital environment (Valm, 2007). In this scope, cultural memory institutions make use of information technologies to carry out digitization projects and offer cultural heritage to their users. The fact that the digitization projects are also of great importance in terms of life-long learning has been indicated in the studies of organizations such as UNESCO. It is particularly emphasized in such studies that cultural memory institutions should provide publicity and access to the collections they possesses (UNESCO, 1998).

Digitization, which has great importance for cultural memory institutions in transmitting life styles and history of societies, is a process that requires time and money (Fabunmi, Paris & Fabunmi, 2006). For this reason, a strategic plan is required before the project proceeds in order to have, successful results and it is necessary to know precisely life-cycles of the materials in the digital environment at the end of the project (Granger, 2000). Besides the strategic plans, in digitization practices, objective and scope, selection and features of the original materials, efficiency level of the existing technology for digital copies, processing level of the digital collection as well as factors such as administration and access should be taken into consideration (Ministry of Culture of the Republic of Croatia, 2006). Moreover, the relation between these factors should be taken into account by project executives. It is known, on the other hand, that institutions consider three fundamental factors within the framework of goals for digitization of collections, and they develop their strategies and plans within the context of these three factors: access, selection and preserving.

Access: One of the main functions of cultural memory institutions is their services in meeting the information needs of individuals. All memory institutions, principally libraries, collect information produced by the society, and offer it to users in need. It is clear that access comes into prominence in digitization practices. With digitization projects, access to materials such as manuscripts that have the risk of disappearance in the future, research projects, photographs, maps, voice records, official records and historical documents have been increased where technological infrastructure and copyrights permit (IFLA, 2002; Astle & Muir, 2002).

Selection: Selection for digitization is the process which a decision is made as to which materials will be digitized. This factor directly affects the dimensions of cost and time in addition to the technical dimensions of a project. It is found that for libraries, increasing access to materials of historical/cultural and research value comes first, followed by preservation, creation of physical space and commercial use (Gould & Ebdon, 1999; IFLA PAC, 1999). In the

policies adopted for selection, it should be decided which materials are to be digitized, through which technological methods (scanning, emulation or migration), and what goals will be taken into consideration in the selection.

Preservation: Digitization is thought to be a new method of preserving sources in fields such as art, culture, science and technology, literature and human sciences, media, cultural heritage and history (Varatharajan & Chandrashekara, 2007). Cultural memory institutions invest in digitization and strive for protection of original collections they possess. These institutions use strategies of hardware and software protection, emulation and migration within the scope of preservation practices (MacKenzie, 2000; Smith, 1999). Furthermore, functions of digitization for long-term protection begin with radical alterations in the information system used in content management, transfer of the content into another system, finalizing the use of original copy in production of content, and deciding what to do in case the capacity required for protection of the content is full (Ministry of Culture of the Republic of Croatia, 2006). Except for the technical applications, digitization may allow institutions to benefit from preserving materials in two ways: original materials are replaced by their digital copies so that the original material does not need to be used, transferred, or damaged during other procedures; digital copies may be kept for security reasons in case the original copy is damaged or lost. It can be said in strategic plans developed by national archives that digitization is not only the transfer of the printed material into the digital environment but rather it is the entire range of activities that result in providing access to digital copies to the end user access via internet and similar tools.

Digitization Policies as a Part of Information Policies

Information policy is a concept that includes the processes of producing, collecting, arranging, storing, accessing, distributing and preserving all kinds of information (*Information Policy,* 2011). There are many other definitions that describe this concept differently, and some studies put forth that information policies differ from state to state and region to region (Keenan & Johnston, 2000). It is also expressed that the concept contains applications such as laws, guidelines, rules and strategies related to producing, managing, processing, accessing and using information (Weingarten, 1989; McClure & Dugan, 1996; Keenan & Johnston, 2000). Besides this, it is stressed that reusing and transferring information have an important role in formation of the information policy (Toplu, 2006). In this framework, since the 1990s, practices that require investment such as digitization have begun to be one of the key elements of information policies.

Digitization practices can be seen as a crucial means for realizing the function of information policies to ensure the socialization of information (Yılmaz, 2010). The outputs obtained from digitization projects contribute, at the same time, to the realization of the objective of laying the groundwork for rational use of existing information, produced or to be produced in a country, in terms of socioeconomic and scientific aspects (Hız, 2005), which is considered to be the core objective of information policies. Digitization practices and strategies support information policies for reusing and transferring information.

In brief, digitization policies in a country must be compulsory and a part of general information policies as they reflect new developments in information and communication technologies used in information policies.

Digitization Policies

Digitization practices are evolving within the scope of information policies as cultural memory institutions carry out digitization projects, especially since the 1990s. Research on cultural memory institutions confirms this piece of information. In this respect, according to research by the Institute of Museum and Library Services (IMLS) in 2001, one-third of research libraries and one-fourth of public libraries in the USA are attempting to digitize the material they possess (IMLS, 2001). In another study, it is indicated that most of the libraries that take part in digitization projects are research libraries, and these libraries carry out their projects in collaboration with financially viable institutions such as national museums and libraries (Liu, 2004).

Digitization projects have several components: selection policy, conversion process, quality control, collecting methods, presentation and long-term access (IFLA, 2002). Digitization projects help cultural memory institutions to go beyond their conventional approaches and enable institutions such as libraries, museums and archives to offer fast, true and reliable information simultaneously to vast numbers of users along with preservation of this information (Valm, 2007; IFLA, 2002). With these features, digitization projects and processes are described as a part of distribution and preservation strategies of cultural memory institutions, national libraries in particular, and today this is considered to be one of the main tasks of libraries (National Library of Norway, 2007). Also, cultural memory institutions develop policies for digitization processes and try to ensure the effectiveness of their collections and services in terms of access, selection and preservation (Beagrie, Rettberg & Williams, 2008; King, 2008; Bülow & Ahmon, 2011). When works on the subject are examined, one can see that there are analyses and studies that feature digitization policies for cultural memory institutions, and put forth the requirement for these policies (Clerason, 2006;

Fabunmi, Paris & Fabunmi, 2006; Iwhiwhu & Eyekpegha, 2009; Astle & Muir, 2002). Digitization policies are described as guidelines for digitization processes and projects. In this framework, it is emphasized (Fabunmi, Paris & Fabunmi, 2006; National Library of Norway, 2007), in a holistic way, that digitization policies should include:

- objectives in detail, collection to be used, the way it is to be used, target audience, issues such as copyrights,
- budget procedures for digitization practices, formalities about equipment supports, sustenance, licenses and communication,
- training and orientation programs for personnel about digitization practices and services to be provided and attitude towards digitization practices,
- all elements concerning the digitization processes.

It is also stressed that in the course of developing digitization policies (Valm, 2007; Fabunmi, Paris & Fabunmi, 2006);

- top management should determine the policy components very carefully,
- one should be aware of the fact that the related policies have a vital role in terms of the functions of cultural memory institutions,
- the policies developed should, at first, necessarily be confirmed by the appropriate authorized institutions and authorities, and cooperation should be developed with these institutions in order to sustain the process.

The Situation of Digitization Efforts in Turkey

Technological developments cause countries to attempt to protect the objects that reflect their culture and to formulate practices for protecting these cultural entities. Digitization projects are one of these practices. As in other countries, in Turkey digitization enterprises are realized by institutions such as the Ministry of Culture and Tourism, the National Library, university and public libraries and the General Directorate of State Archives. Aiming "to protect the original documents", these attempts generally consist of describing and cataloguing print materials and transferring them into a digital environment (Bilgi, 2010).

The first attempt at digitization efforts in Turkey was The Union Catalogue of Turkish Manuscripts (TÜYATOK) Project, started in the 1970s and continued until 2000 by the National Library, which included procedures for describing manuscripts (Odabaş, Odabaş, & Polat, 2008; Milli Kütüphane, 2011a). Similar to the TÜYATOK, another project on cataloguing and digitizing manuscripts in the Library of Ankara University was carried out in 1998 (Örs, Tuzcu, & Hekimoğlu, 2006). Studies for transferring manuscripts in the National Library into a digital environment began in 2004, and by the end of the project, 25,200 volumes of manuscripts out of 26,700 had been transferred into a digital environment (Milli Kütüphane, 2011b). Another project was carried out to digitize the manuscripts collection of the İstanbul University Library of Rare Works (Konya, 2010). Besides these projects, universities that possess manuscripts in their collections are known to be carrying out digitization efforts (Odabaş, Odabaş, & Polat, 2008). In addition to university libraries, digitization efforts have been conducted in 28 public libraries in cities and districts which have manuscripts in their collections. As a result of these attempts, some of which were conducted with the support of sponsors, more than 167,000 works have been digitized (Açıkgöz, 2010; Yılmaz, 2011). There are also some digitization projects at the Hacettepe University Department of Information Management focusing on providing access to master's and PhD dissertations as well as to the local cultural heritage in public libraries (Darçın Şahin, 2010; Tonta, et al, 2006).

It is an interesting fact that archives and institutions related to information management conduct projects about digitization within the scope of cultural memory institutions. It is indicated in these studies that there are more than nine million digital materials in the General Directorate of State Archives (Yılmaz, 2011). It is known that similar studies are beingcarried out by the General Directorate of Land Registry and Cadastre.

As for international digitization activity, there are plans to transfer digitized materials to Europeana, the European Digital Library, and distance education is being used to raise awareness about the issue. Conducted under the EU 7th Framework Programme, AccessIT (Accelerate the Circulation of Culture Through Exchange of Skills in Information Technology) Project whose institutional owner on behalf of Turkey is the Hacettepe University Department of Information Management, it is planned to share the metadata of 50,000 cultural items with Europeana (Yılmaz, 2011). Also, a distance education certificate programme about digitization was carried out within the scope of the project.

Apart from the above-mentioned efforts, workshops were held on digitization and the principles that might guide the digitization practices in Turkey were negotiated. Furthermore, some reports and scholarly papers have been published about digitization procedures, sources for support, cooperation suggestions and digitization projects (Küçük & Soydal, 2003; Odabaş, Odabaş, & Polat, 2008; PULMANWeb, 2003; Açıkgöz, 2010; Atılgan, 2001). Problems in digitization practices in Turkey were determined in the Workshop on Standards and Cooperation in Digitization of Information

Resources held on February 25-27, 2010. Similar to the decisions at the end of that activity, studies dealing with the problems in digitization projects play a supporting role in making up the deficiencies (Yılmaz, 2011; Odabaş, Odabaş, & Polat, 2008). Among the subjects of the studies, digitization policies were touched on for the first time and the fact that Turkey lacks such policies was identified as the real problem (Yılmaz, 2011). Apart from that major problem, the general problems related to digitization efforts in Turkey are as follows (Odabaş, Odabaş, & Polat, 2008; *Bilgi,* 2010; Yılmaz, 2011):

- Conducting projects and institutional studies independently and unaware of each other,
- Qualified personnel and budget problems,
- Lack of national standards,
- Lack of terminological unity in defining sources in projects,
- Ambiguities in copyright for cultural memory institutions and lack of a definition for information sources in the related regulations,
- Lack of an overall catalogue of digitized materials,
- Lack of a supreme board having authority over digitization practices.

Approach on Digitization in Respect to Information Policy in Turkey

If there is no officially approved written policy on a subject, one must refer to various legal documents in order to understand the approach of the national policy on that subject. In Turkey, the principal legal documents that contain the national policies on various social issues are the five-year development plans, laws and guidelines. Since there is no separate and independent information policy in Turkey, the development plans will be taken into account for making evaluations in respect of information policy on digitization. Since 1963, a total of nine five-year development plans have been followed.

Approach to Digitization in Five-year Development Plans

If the five-year development plans are examined, except for the goal of forming a National Cultural Archive, one cannot claim that there is an approach to digitization in the context of national policy in the first four plans. Some interesting principles and approaches that might relate to digitization as a part of information policy are to be found in the 5th, 6th, 7th, 8th and 9th plans, as follows (Devlet Planlama Teşkilatı [DPT], 1984, 1989, 1995, 2000, 2006):

- Considering the works that have cultural value as a part of daily life,
- Needing means for distributing and sharing culture in the context of cultural policies,
- Strengthening national integrity by transmitting cultural heritage to future generations,
- Existence of principles for developing and generalizing culture in development plans,
- Featuring research and development studies that will help enrich and transmit the cultural entities to the future generations,
- Ensuring cooperation between institutions and organizations that render cultural service,
- Establishment of the Manuscript and Rare Works Pathology and Restoration Center for protection of rare works and manuscripts, and manuscript restoration centers wherever needed,
- Protection of manuscripts and rare works in microform environments,
- Accelerating studies on protection and classification of archive documents and making them available for researchers' use,
- Supporting institutions and organizations as well as private enterprises, foundations and associations which introduce cultural works,
- Strengthening education at all levels so as to effectively transmit cultural values to the future generations;
- Establishment of a Turkish Culture Archive and Documentation Center that will bring together information, documents and video records of cultural entities,
- Transfer of information in different environments into an electronic environment,
- Facilitating access to the information about innovations and new technologies in the centers that have a high development potential for protection of cultural entities and transmitting them to future generations,
- Development of technological change and transfer systems, and
- Creating the necessary environment to feature information and communication technologies at all platforms.

Approach to Digitization in Related Laws, Guidelines and Directives

Besides the development plans, there are studies in laws, regulations and directives for realizing the same goals in the development plans. The laws, guidelines and directives that are directly or indirectly associated with the subject matter are as follows (Kamu, 1986; 2006; Türkiye'de, 1988; *Kültür ve Turizm Bakanlığı,* 2003; 2004; Kültür, 2003a; 2003b; Türkiye, 2010; Bilim, 2011):

- Law on Establishment and Duties of a Directorate for Turkish Manuscripts Association,
- Decree Law on Organization and Duties of the Ministry of Science, Industry and Technology,
- Regulation on Amending the Regulation on Principles of Benefitting from Works of Public Institutions and Organizations,
- Guidelines for Benefitting from the Ministry of Culture Manuscript Libraries Having Manuscripts and Old Alphabet Printed Works,
- Guidelines for Amending the Guidelines for Benefitting from Ministry of Culture Manuscript Libraries Having Manuscripts and Old Alphabet Printed Works,
- Principles for Foreigners and Applicants on Behalf of Foreigners who Want to Make Scientific Research and Films in Turkey and Members of Foreign Press,
- Directive of the Principles for Foreigners, Applicants on Behalf of Foreigners and Foreign Press who Want to Make Scientific Research and Films in Turkey and under the Ministry of Culture and Tourism General Directorate of Libraries and Publications,
- Regulation on Benefitting from the Works of Public Institutions and Organizations,
- Directive of Principles for Foreigners who Want to Make Scientific Research and Films or for Members of Foreign Press bound to the Ministry of Culture and Tourism General Directorate of Libraries and Publications.

Laws and guidelines cited above remain restricted to manuscripts and rare works. There are also other points which can be considered as approaches to digitization. These can be listed as follows:

- Regarding digitization practices as a duty of the Directorate for Turkish Manuscripts Association,
- Responsibility of the same directorate to prepare training sessions and to establish an education and research center,
- Regarding digitization as a method for copying manuscripts without damaging the original copy,
- Offering the copies that are transferred into microfilm and electronic environments to users, preserving the original works,
- Forming archives of manuscripts in formats such as slides or microfilm, or digital environments, as well as photographs and similar non-digital environments; and making them available to users,
- Accepting, evaluating and supporting projects related to research and development activities, activities on technology, innovation and entrepreneurship; scientific and technical studies, investment applications for technological products; and determining procedures and principles for the support foreseen in the related regulation.

Conclusion and Evaluation

Digitization is one of the important recent efforts for protection of cultural entities of a society and transmitting them to the future generations. Many institutions, particularly the cultural memory institutions, establish strategies which describe the requirements for digitization efforts; organize digitization projects within the framework of these strategies; attempt to develop cooperation; organize training on the subject, and try to realize their objectives. On the other hand, it is an interesting fact that cultural memory institutions give particular importance to factors of access, selection and preservation. These institutions not only prefer to digitize rare works and manuscripts as a selection criterion, but they also digitize their educational materials within the framework of copyrights in order to increase access. Many studies show that most of the institutions that carry out digitization studies are research libraries or public libraries.

The results of our study with respect to digitization practices show that there are various applications in Turkey. In this framework, it can be said that various legal regulations and plans have been drawn up, and efforts on digitization were first started in the late 1970s with description of works. In other projects, under the auspices of the Ministry of Culture and Tourism, manuscripts in public libraries are being transferred into digital environment. Similarly, in some university libraries, rare works and manuscripts are being transferred into digital environment.

Official Development Plans, beginning with the Second Five-year Development Plan (1968-1972), reflect the development and information policies in Turkey, acknowledging the need for protection of cultural heritage and its transfer to the future generations. They also describe the situation and set forth the tasks that should be carried out. These Plans also evaluate the subject in respect to cultural policies. The necessity of cooperation in the process of transmitting the cultural heritage to the future generations was indicated in the Sixth Five-year Development Plan (1990-1994). It can be seen that the five-year development plans were geared to the situation at the being of the related period of time and nearly all included subjects such as protection and introduction of cultural heritage and transmittal of it to the future generations. The latest plans, in particular, contain articles on digitization of resources for effective use of archive systems.

In documents reflecting information policies such as laws, guidelines and directives, digitization is mentioned in the context of the use of materials and the preservation of the original material. It is an interesting fact that digitization is defined only as the transfer of materials into the digital environment in the guidelines and directives. Digitization and digitization education were included among the duties of the Directorate of Turkish Manuscripts Association with a law laid down in 2010.

Apart from legal regulations about the issue and the five-year development plans, scientific studies and workshops are carried out on digitization in Turkey. These studies deal with issues such as procedures that should be followed in digitization projects. As for the practices, many digitization projects have been carried out by the National Library, various research libraries and public libraries and universities. In connection with these projects, problems encountered in digitization projects have been mentioned in scientific studies, and problems such as lack of an authoritative institution, a national standard and coordination on digitization efforts have been dealt with. In this context, the lack of digitization policies which should have been prepared as the initial document for digitization projects, was first seen as a problem in 2011. Furthermore, the analytic studies in the literature show that access is of top priority compared to other factors; the projects carried out in Turkey, on the other hand, consider preservation more important than access. Last but not least, the first digitization education for the personnel working in cultural memory institutions was given through distance education within the scope of a European Union project (AccessIT) in 2011.

In light of the results of this study, it can be suggested that attempts should be made to raise awareness of institutions about digitization practices and projects; detailed policies on digitization projects and digital collections should be established within the framework of culture policies at institutional and national levels; access should be given primary importance rather than preservation in digitization efforts; and an institution (e.g. the National Library) which can act as the leading authority in all these issues should be determined.

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