Michał Zawada
(Archiwum Państwowe w Lublinie)

Interdisciplinary approach
in preservation, digitization and sharing
of archival materials

ABSTRAKT: National and state archives are important part of nations' cultural heritage. Storage of archival materials serves not only as a means of testaments of the past preservation, but also allows sharing of archival contents to a wide spectrum of users. Considering quantity of archival fonds as well as requests of modern archives users, preservation, digitization and sharing of archival materials require more interdisciplinary approach, where archivists, conservators, digitizators, programmers, IT specialists, officers responsible for information security and personal data protection, popularizers and executive staff cooperate to achieve goal of fulfilling needs of modern and future users of archives. Interdisciplinary approach is likewise essential in process of digitization, digital copies management and during creation of databases based on modular and integrated solutions.

KEYWORDS: archives, information society, heritage, conservation, digitization, sharing, popularization.

National and state archives have existed in material and cultural space of nations for centuries. Present to a various degree in citizens' collective awareness they function in state structures as institutions of faith and public trust, gathering and storing archival resources that form a priceless part of cultural

heritage[1]. This heritage is important not only to a designated nation or state, but also to whole mankind of yesterday, today and tomorrow, as this heritage often contains unique wealth and diversity of human spirit, expressed by historical experience of particular nation. Unfortunately, some of archival documents - especially the oldest ones, are endangered by their irreversible loss because of deterioration of traditional medium of information, like paper, parchment or photographic film. Loss of part of documentary heritage often results in cultural impoverishment of society, which was clearly shown in II World War, when un-countable life and culture testimonies of many nations were destroyed. Remembering these losses all the more urgent is the care about these archival materials, that prevailed to current day. Modern information and communications technologies (ICT) are offering a great aid in achieving this goal, for their potential is able not only to support archival materials preservation, but can also open a broad access to them for archives users[2].

For many citizens archives and their resources are an important source of their identity and national affiliation, and place, where valuable information concerning history of their families is retained. Global and local importance of national and state archives clearly shows, that archives exist for citizens and their needs as well as for state structures and their interests. Because of this importance of archives their primary task, gathering and storing archival materials, serves not only their long-term preservation, but also ensures persistent access to these materials for wide range of users. Ultimate goal of other archival tasks and activities, like recording and describing archival resources, their conservation, and even supervision over growing archival resources on an archival forefield is also set to facilitate access to archival materials for interested groups of users, not only current ones, but future ones as well.

Present-day archives are great treasuries of information, knowledge and wisdom for information society in many areas associated with education and research[3]. New digital forms of popularization of archival resources have become a significant element of usefulness of archives for this kind of society and one of means to meet requirements of its citizens focused around access to archival information. Popularization of historically and culturally valuable archi-

---

[1] Por. J. Chojecka, M. Jabłońska, Przestrzenie w archiwach. Archiwa w przestrzeni. Rzecz o obecności archiwów państwowych w świecie i społeczeństwie, referat wygłoszony podczas XX Powszechnego Zjazdu Historyków Polskich w Lublinie, 18–20 września 2019 r.

[2] Por. tamże, s. 3.

[3] A. Rosa, *Funkcja edukacyjna archiwów*, Warszawa 2012.

val materials is an intrinsic part of tasks that archives undertake in order to co-create new and co-shape existing spaces of culture. Popularization helps in a significant way in inspiring and stimulating historical and archival awareness in citizens of mentioned information society. In this task archives are a part of GLAM (galleries, libraries, archives, museums) – group of public and private institutions collecting cultural heritage materials[4]. By creating spaces of culture archives are also opening wider onto cooperation with social and private archives, especially on the field of preservation, digitization and sharing of this kind of archival materials. Thanks to this role of archives they show themselves as valuable partners in projects carried out by other institutes associated with history and its popularization[5].

Co-creating and co-shaping of cultural spaces undertaken by archives is connected with their more distinct existence in citizens' collective awareness. In the era of Internet and possibilities it offers digitization and publication online of digital copies of archival materials poses a great chance for archives to improve degree of their existence in mentioned citizens' awareness and to encourage curiosity about national and state archives. It is even more possible because of free and unlimited by space or time access to digital copies of archival materials. In many archives digitization is already one of their crucial tasks and interdisciplinary approach to preservation and sharing of archival resources, done by creating their accurate digital copies, had already become a part of long-term thinking and acting of archives' management teams. Digitization, considered to be fast, convenient and accessible method of preservation and sharing of mass quantity of information contained in archival resources, should be understood here as a process[6]. In this process interdisciplinary approach is a basis of well-thought-out selection and prioritization of these archival resources, whom preservation and sharing corresponds in the best way to current and future needs of various groups of archives users and contributes to co-creating and co-shaping of cultural spaces. In this perspective digitization is a keystone in preservation-digitization-sharing (access) triad, although it requires certain approach do its elements.

---

[4] Por. <https://www.en.wikipedia.org/wiki/GLAM_(industry_sector)>, [dostęp: 14.12.2019].
[5] Por. *Archiwa w przestrzeni publicz*nej, <http://www.xxpzhp.umcs.lublin.pl/archiwa-w--przestrzeni-publicznej/>, [dostęp: 14.12.2019].
[6] Por. <http://www.digitalizacja.pl/Digitalizacyjny-workflow>, [dostęp: 14.12.2019].

Preservation of archival materials, understood widely as a prevention and their conservation aims at preservation of physical medium from deterioration and destruction in order to preserve archival information written on it. Taking into consideration physical condition of some of stored archival materials, amount of required work and resources, especially during full and complex conservation is significant. In extreme cases, taking immediate actions is the only chance to preserve information that deteriorates along with its physical medium. In such situation digitization of archival materials in bad condition facilitates much faster preservation of written information that didn't deteriorate yet. However, majority of archival resources stored in archives are well preserved and deterioration processes are inhibited. Considering quantity and current-day physical condition of these archival materials it is reasonable to digitize them to preserve written information. Instead of time consuming complex conservation, digitization requires only basic treatment to enhance readability and access to textual layer of information on physical medium. Preparation for digitization requires interdisciplinary acting of conservators, digitizators and popularizers in order to determine the most effective, in terms of access, means to preparation, digitization and visualization of archival information. It should be stressed that this kind of preparation cannot replace full and complex conservation and does not diminish its importance, but in discussed interdisciplinary approach it is an optimal acting.

Digitization, especially mass digitization, of archival resources aims at achieving two main goals: preservation of archival information and extending access to them[7]. Considering current level of technology used in creating and publishing digital copies on the Internet there are different sets of parameters used for making master copies and their duplicates intended to be published online. On the one hand higher parameters, especially related to optical resolution, bit depth and file format (without image compression) give better details and colour accuracy, but on the other hand lower parameters significantly shorten amount of time required to make a digital copy and are more cost effective in their long-term management. Thus it is crucial to find a golden mean, such level of digitization parameters that will provide sufficient detailedness of information related to particular type of archival materials and which will facilitate mass publication of digital copies simultaneously. This effort is needed to undertake in order to fulfil citizens' requests, who are looking for basic information as well as

---

[7] Por. *Digitalizacja piśmiennictwa*, red. D. Paradowski, Warszawa 2010, s. 26–27.

requests of historians, researchers and people from various branches of science, interested in acquiring more detailed or precise information. Determination of mentioned parameters should take into consideration current needs of information society and archives opportunities in the first place, but without ignoring prediction of future needs and requests that will be formed by archives users. Feedback from various groups of archives users is also a vital one, as it could and should influence prioritization of archival resources intended to be digitized. No less important here is to recognize archival necessities around using modern scanners that allow multispectral imaging. It is worth to mention, that this type of scanners can be used to preserve level of information unreachable for typical book of flatbed scanners. Some of multispectral scanners advantages are: increasing the readability of faded parts of text, aid in identification of ongoing deterioration processes and broadening knowledge of used physical medium[8]. Usage of multispectral scanners opens new areas of cooperation for archivists, conservators and digitizators. Finally, discussed preservation-digitization-sharing triad requires well-thought-out means to preserve master copies in order to secure constant access to them for future generations.

Interdisciplinary approach is the most visible in rules of wide publishing of archival information online in the form of archival description and digital copies of archival materials. Level of availability of archival information online have to respect not only citizens' rights focused around access to this type of information, but their rights to protect personal data and personal goods as well. Violation of person's rights can be caused by unauthorized publishing of archival information containing personal data about that person, her relatives or affiliation to religious groups or political parties[9]. Decision making process, associated with choosing range and level of archival information that can be published online without risk of violating personal data protection rights, should be conducted with interdisciplinary approach, which connects knowledge about archival resources and legal regulation concerning personal data processing, especially in data bases and IT systems. Establishing precise rules of publishing digital copies of archival documents, that contain important and culturally valuable

---

[8] <https://blog.nationalarchives.gov.uk/collection-care-welcomes-a-new-multispectral-imaging-system/>, [dostęp: 14.12.2019].

[9] Por. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), art. 4 pkt 12.

information among personal data and other sensitive information is a vital undertake in order to prevent violation of data protection rights. It is important even more because amount of archival information that can be published online determines to a certain degree work of popularizers working in archives.

Creation of systems of archival information, particularly those dedicated for archives users, require more and more cooperation of IT specialists, archivists and persons responsible for data protection and information security in order to determine mentioned range and level of archival information that can be published online. The Integrated Archival Information System (in polish: ZoSIA) and integrated with this system webpage Search the Archives (in polish: Szukaj w Archiwach), which are functioning in state archives network of Poland, are example of such cooperation and interdisciplinary work of many specialists. ZoSIA is an application designed for recording and maintaining information about archival collections at every level of their hierarchical structure – from whole archive down to a single archival object[10]. Szukajwarchiwach.gov.pl is a webpage developed by National Digital Archive and its purpose is to present digital copies and descriptions of archival collections stored mostly in polish archives[11]. Currently there are 38 million of digital copies and this number is ever-growing. ZoSIA is a modular system, based on roles and sets of authorization levels. In the perspective of discussed topic it should be stressed, that describing archival materials in ZoSIA ends with their publishing online, unless it is impossible due to legal regulations or other important reasons, like mentioned personal data protection, respect for personal goods, copyright or limits set by donators of archival collections. Publishing archival information in form of archival collections description and its inventory is done by entering, edition, redaction and acceptance of descriptive information by consecutive archivists with appropriate level of authority. Afterwards accepted archival collection description and its inventory is sent to a person responsible for publication list, that contains indication of those archival collections and files that are acceptable for publication on Search the Archives webpage and indication of those, that cannot be published online in order to secure personal rights. Publication list also determines range of digital copies that can be published online. From these published copies popularizers in archives are choosing particular ones and from them they create digital collections focused around certain historical or

---

[10] <https://www.nac.gov.pl/archiwum-cyfrowe/systemy-i-infrastruktura-it/zosia/>, [dostęp: 14.12.2019].

[11] <https://www.szukajwarchiwach.gov.pl/en/o-serwisie>, [dostęp: 14.12.2019].

cultural topics or anniversaries. These collections also aim at showing interesting, unknown and unusual archival materials. Search the Archives webpage offers many other functionalities, for instance creating user account, creating personal collections from available digital copies, ordering original archival materials to a reading room of particular archive, or a module that gives an opportunity to every user to help archivists in their job of identifying and describing photography from archival collections. Search the Archives webpage is one of means through which polish archives try to meet informational needs of current and future archives users as well as an significant contribution to promoting cultural heritage through modern information and communications technologies.

In conclusion it should be stressed once again that tasks undertaken by modern archives, associated with informational needs of citizens, should be integrated around digitization and its possibilities to preserve and facilitate mass access to archival materials and information. This integration should also be relevant to interdisciplinary thinking and acting in areas, where combined efforts of specialists from various branches of science creates new means to reach modern users and contributes to creation and shaping of cultural space along with other institutions of faith and public trust.

Streszczenie

Archiwa narodowe i państwowe to ważna część dziedzictwa kulturowego narodów. Przechowywanie materiałów archiwalnych służy nie tylko zabezpieczaniu świadectw przeszłości, ale także umożliwia udostępnianie ich szerokiemu gronu użytkowników. Biorąc pod uwagę zarówno wielkość zasobów archiwalnych, jak i wymagania współczesnego użytkownika, zabezpieczanie, digitalizacja i udostępnianie archiwaliów coraz bardziej wymagają interdyscyplinarnego podejścia, w którym archiwiści, konserwatorzy, digitalizatorzy, informatycy, osoby odpowiedzialne za bezpieczeństwo informacji, popularyzatorzy oraz kadra zarządzająca współpracują ze sobą w celu zaspokojenia potrzeb współczesnych i przyszłych użytkowników archiwów. Podejście interdyscyplinarne jest niezbędne również w dobrze zorganizowanym procesie digitalizacji oraz przy tworzeniu baz danych opartych na rozwiązaniach modułowych i zintegrowanych.

słowa kluczowe: archiwa, społeczeństwo informacyjne, dziedzictwo kulturowe, konserwacja, digitalizacja, udostępnianie, popularyzacja.

Bibliografia

Źródła drukowane

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), art. 4 pkt 12.

Literatura

Archiwa w przestrzeni publicznej, <http://www.xxpzhp.umcs.lublin.pl/archiwa-w-przestrzeni-publicznej/>, [dostęp: 14.12.2019].

Chojecka J., Jabłońska M., Przestrzenie w archiwach. Archiwa w przestrzeni. Rzecz o obecności archiwów państwowych w świecie i społeczeństwie, referat wygłoszony podczas XX Powszechnego Zjazdu Historyków Polskich w Lublinie, 18–20 września 2019 r.

Digitalizacja piśmiennictwa, red. D. Paradowski, Warszawa 2010, s. 26–27.

Rosa A., *Funkcja edukacyjna archiwów*, Warszawa 2012.

<https://blog.nationalarchives.gov.uk/collection-care-welcomes-a-new-multispectral-imaging-system/>, [dostęp: 14.12.2019].

<http://www.digitalizacja.pl/Digitalizacyjny-workflow>, [dostęp: 14.12.2019].

<https://www.en.wikipedia.org/wiki/GLAM_(industry_sector)>, [dostęp: 14.12.2019].

<https://www.nac.gov.pl/archiwum-cyfrowe/systemy-i-infrastruktura-it/zosia/>, [dostęp: 14.12.2019].

<https://www.szukajwarchiwach.gov.pl/en/o-serwisie>, [dostęp: 14.12.2019].