

Digital Challenges Facing the National Archives of Japan: Towards the Application of Digital Technologies and Cultivation of Archival Profession in the New Reiwa Era

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Introduction

This EASTICA General Conference and Seminar hosts several discussions on themes related to how archivists should deal with increasingly enormous and diverse records, as records and information undergo a process of digitization¹. In view of the changes in how records are handled due to the advent of big data and Social Networking Services ("SNS"), changes in terms of tools used to manage records such as cloud services and the Blockchain, and also changes at the level of users as a consequence of the above, several trial-and-error attempts are under way concerning the management, preservation, and use of records in the archives world.

At the National Archives of Japan (hereinafter referred to as the "NAJ"), this trial-and-error process has just begun, and a few actions are under way. For instance, the policy regarding electronic management of administrative documents by the Government has reached a significant turning point between last year and this year. Moreover, some progress has occurred in terms of archivist training. In this report, we describe our current situation and issues faced by the NAJ in dealing with digital records/technologies that continue to change both qualitatively and quantitatively. These include issues related to digitization at the stages of acquisition, preservation, and use of materials, as well as to efforts to design a systematic cultivation of archival profession.

1. The path towards a digital government - preparing for a increase in the acquisition of diverse electronic public records and archives

First, we briefly describe recent developments in Japan related to the transition to a digital government².

According to the "Basic Act on the Advancement of Public and Private Sector Data Utilization³", enacted in 2016, the Government is to implement necessary measures to ensure that the procedure pertaining to an administrative agency (such as applications, notifications, or notice of disposal) is, in principle, conducted by means of information and communication technologies, including the use of internet. The "Digital Government Action Plan⁴" prepared in 2018 sets the goal of achieving 100% digitalization of administrative services (in other words, the ability to complete in digital format an entire process from application to probation, final decision, and notification), and concrete actions to achieve that goal have been disclosed. In addition, in May 2019 the so-called "Digital Procedure Act⁵" was enacted, introducing amendment of related laws and regulations that are necessary to permit executing administrative procedures online in principle. This trend characterizes an effort⁶ for realization of the society where citizens are able to live safely and free from anxiety and to feel truly enriched, by building a

simple and efficient social system that makes full use of information technologies, starting by introducing a digital revolution in administrative services.

On the other hand, a series of issues has surfaced in recent years concerning public records management, such as tampering with records after authorization, the appearance of public records about which the government previously announced that they were not exist or to have been lost. The situation has had a negative impact on trust in the Government. The Government considered this issue seriously and in July 2018 established countermeasures to avoid any recurrence⁷, where improvements in electronic management of administrative documents⁸ are set as an important pillar. Specifically, it was set forth that schemes would be considered to permit locating electronic administrative documents, as well as to manage such documents in fully electronic format, including creation, preservation, and destruction/transfer.

In March 2019, the "Basic Guideline Concerning the Electronic Management of Administrative Documents"⁹ was established as a Prime Minister Decision. Concerning the creation and obtaining of administrative documents, the basic principle is to be able to perform systematic management based on electronic media as the original/master copy and, in order to build a framework for that, the Government as a whole aims at introducing a full-fledged electronic management system alongside the schedule of the opening of a new building for the NAJ¹⁰. It has been decided that from that point onwards the considerations centered on the Cabinet Office would advance further based on the cooperation between related administrative agencies and the NAJ towards the actual implementation of a framework to automatize records management processing, arriving at some kind of conclusion by the end of March 2020. Moreover, a requirement has been identified to take measures to enable the long-term and stable use of historical public records and archives that would be transferred to the NAJ. NAJ, as an Incorporated Administrative Agency under the jurisdiction of the Cabinet Office, provided support through professional advice during the preparation of the basic policies by the Cabinet Office.

Considering these two trends, it is no exaggeration to say that the promotion of a digital government in Japan, in particular the transition to a system of electronic management of administrative documents, is one of the most important issues facing our country. Currently, administrative documents exist predominantly on paper¹¹. As a result of these efforts, it is especially expected that the use of "born-digital" documents will increase dramatically in the future. This means that, in the future, the historical public records that will be transferred to the NAJ will also shift from paper to electronic format.

Since fiscal 2011, the NAJ has acquired, preserved, and used historical public records prepared in electronic format (henceforth referred to as "digital records"). As of March 2019, out of the approximately 1.5 million Special Historical Public Records and Archives preserved by the NAJ, the portion corresponding to digital records is only 0.1%. However, comparing fiscal 2018 to fiscal 2013, the number of digital records received per year increased approximately six times, and the accumulated number of items since fiscal 2011 increased approximately two times¹². Under Japan's current system, within a year after the acceptance of Special Historical Public Records and Archives, the NAJ is obliged to take the necessary measures related to their preservation, assigning them reference numbers, and to publish the catalogues. This brings with it a number of issues, such as the need to review the storage capacity of The

System for Transfer, Preservation, and Use of Electronic Records and Archives of Japan (henceforth referred to as ERAJ), the need to reinforce systems in terms of hardware and software, i.e. enhancing the processing capabilities, and to improve the efficiency of operational procedures. In addition, considering that the current ERAJ is mainly based on insights obtained through surveys conducted by the Cabinet Office and the NAJ between fiscal 2005 and 2009, another issue is the handling of additional formats of digital records, as well as an increase in number, as a consequence of technological improvements and changes in society. In addition to the above, it is necessary to build and operate a system that enables stable preservation for a long period of the received digital records, ensuring high reliability.

The NAJ is expected to undergo a replacement of ERAJ in 2022, and the above issues will be examined during the current fiscal year in preparation for that.

In addition, in order to efficiently cope with the imminent surge of incoming digital records, it is important not only for the NAJ to be prepared in terms of organization, but also for administrative agencies to design systems that provide perfect handling of metadata settings and conversion to formats that allow long-term preservation, starting from the creation and obtaining of records. We at the NAJ consider that it is necessary to be actively and continuously involved in order to ensure the reliable transfer after the expiration of the retention period of historical public records during the upcoming study period related to the electronic management of administrative documents by the Government as a whole.

2 Digitization of existing paper materials - Using digital technologies to improve accessibility of materials

The NAJ regards as an important issue the ability to handle not only "born-digital" documents but also to digitize and permit the use of holdings currently preserved in paper format¹³. The main objective of the digitization of the NAJ holdings is to improve accessibility. Ensuring open access from inside and outside Japan to Japan's historical public records according to the concepts "any time", "anywhere", "to anyone", "freely", and "free of charge" contributes to the promotion of the active use of Japan's intellectual assets, and recent advances in digital technologies make that possible.

NAJ runs two "Digital Archives" (hereinafter referred to as "DA"). The first DA refers to the Japan Center for Asian Historical Records, which was set up as a subsidiary institution of the NAJ in 2001 and provides information through the Internet related to Asian historical materials (important administrative documents and other records related to the relations between Japan and neighboring Asian countries in recent modern history). These materials belong to the NAJ, the Diplomatic Archives of the Ministry of Foreign Affairs of Japan, and the National Institute for Defense Studies of the Ministry of Defense of Japan and were received as digital images. As of March 2019, approximately 31.31 million images are available for use. In the other DA, the National Archives of Japan Digital Archive, all catalogues and some images of Special Historical Public Records and Archives owned by the NAJ have been available since 2005. As of March 2019, approximately 289,000 volumes and 21.62 million images are available online¹⁴, which correspond to approximately 19.3% of all Special Historical Public Records and Archives preserved by the NAJ. From the viewpoint of promoting the use of historical public records and archives, from this point

forward we will continue our efforts to accelerate digitization. For the renewal that took place in 2016, we optimized platforms and functions in a system that integrates the two DA's above¹⁵. Moreover, considering the development of digital technologies for information delivery characterized by the proliferation of smart devices and SNS, we enabled the support of devices such as tablets, improved a viewer for large-sized images, and implemented functions such as image download and SNS sharing. The next system renewal is scheduled for 2021. In fiscal 2019, taking into account technological trends since the last renewal, as well as changes in society related to the recommended use of open data, we intend to define system requirements to further improve accessibility, in particular by reinforcing metadata linkage with Japan Search¹⁶.

In addition, we are also engaged in providing technical support to promote the implementation of digital archive in public archives throughout Japan. In the NAJ, the "Standard Specifications for Digital Archives" were established in 2009 as a policy to be followed by public archives to build digital archive systems. We hold explanatory sessions about the Specifications for different archival institutions and shared know-how and perspectives, and last year we conducted a full revision of the specifications¹⁷ in order to cope with the proliferation of cloud services, enhanced information security and the newest technological trends. Currently, the National Archives of Japan Digital Archive offers cross-file search linkage with 17 archival institutions' systems throughout Japan.

The promotion of digital archive will permit the consulting of the holdings with no restrictions on time and place. The ability to expand and reuse images enhances accessibility for the user and, as a consequence, the frequency of access to original paper-based records will decrease, contributing to better preservation. We will continue promoting the use of historical public records with better DA services making the best use of the merits of digital technologies.

3. Training archivists in the digital era - based on the preparation of the Standard of Tasks and Competencies for Archivists

As outlined above, the process of digitizing materials is proceeding rapidly in Japan. In view of this, it is clear that it is becoming increasingly important to provide a comprehensive system of training professions at archival institutions to take full advantage of the knowledge and technologies related to digitization as these are applied to acquisition, preservation, and utilization of materials.

For instance, as a result of a full-fledged transition to a digitized system in managing administrative documents, it is anticipated that it will be necessary to handle large quantities of materials in diverse formats during this stage of evaluation and selection. In order to perform efficient, effective, and appropriate appraisal and selection, it will become necessary to review the relevant methods. Furthermore, another likely requirement will be to create and provide know-how for the operation of records management systems that meet the technical demands of such needs. Professions who can keep up with the constantly advancing technological trends in the formats of electronic media will be also required to ensure the effective preservation of, and long-term access to, the digitized materials.

On the other hand, it is worth noting that these insights and technologies may constitute necessary conditions for future archivists, but such conditions may not be sufficient. These insights and technologies

have been newly added to conventional requirements for the mission as archivists to "ensure that archival materials continue to be reliable proofs of the past", and "striving to protect the truth embedded by such materials"¹⁸." In order to take full advantage of such conditions, it is essential to recognize the missions and roles played by archival institutions and archivists, as well as the difficulties to be overcome. In other words, upon facing the current era of "Diversity of Records Dramatically Increase" (the digital era), reconsidering the mission and the tasks to be accomplished by archivists has an important meaning for the future of archives and archivists. In the face of such issues, Japan is now reflecting again on the fundamental question, "what does an archivist do?", and engaged in an effort to study and implement reforms to reconsider the very concept of an archivist as a profession, and to develop the training system. In the following, we clarify the duties to be performed by archivists, a recurring discussion in the digital era. We also describe the aspects of training and efforts to improve their social status.

At the NAJ, we devised a plan concerning how to secure and train archivists¹⁹; this is an important and urgent issue faced by archival institutions all over Japan. We decided to put it into practice with the cooperation of related organizations. The plan is based on three points:

- (1) To prepare the "Standard of Tasks and Competencies for Archivists" (hereinafter referred to as "the Standard") specifying the tasks to be performed by an archivist, as well as the necessary competencies and requirements for the execution of the tasks.
- (2) To consider the Standard as a base to cultivate the profession, making universities and other educational institutions reflect its contents in their education and training programs.
- (3) Creating a certification system for the competencies and requirements of an archivist to be established in the Standard, securing a social position for archivists as a professional activity.

In 2014, the NAJ started considering the first out of the three points above, i.e., issuing the Standard. In 2016, a preliminary draft was proposed and the study continued, collecting feedback from related organizations throughout Japan. In December 2017, the first draft was published. After that, another study was prepared based on further feedback on the provisional study provided by related organizations and archival institutions from all over Japan. The final version of the Standard was published in December 2018.

The main contents of the Standard are as follows²⁰:

(1) The archivist's mission

The mission states that Archivists are professionals supporting the appropriate management of public records and archives, which are publicly shared intellectual resources, and ensuring their perpetual preservation and availability. Archivists' missions are to provide support for improving the quality and efficiency of organizational activities and ensuring accountability to the public, and to contribute widely to society via the preservation and provision of personal, organizational and social records.

(2) Archivist's ethics and basic stance

In order to fulfill the assigned mission, an archivist must perform his or her job in line with the "Archives Code of Ethics" adopted by the General Assembly of the International Council on Archives held in Beijing in 1996; in addition, standard describes that "Archivists should also ensure fairness

and neutrality at all times, sincerely pursue their missions without bowing to pressure to hide or bend the truth by manipulating evidence, and maintain a high level of ethics concerning their tasks as well as a firm attitude toward ongoing self-improvement.”

(3) The archivist's tasks and necessary knowledge and skills

First, tasks performed by an archivist are divided into four categories: (i) appraisal and selection/collection development, (ii) collection management, (iii) public access, and (iv) outreach and communication services. Then, we defined and explained 22 subcategories, along with the knowledge and skills required to perform them (implementation requirements), organizing the relations between tasks and corresponding task descriptions. There are also topics devoted to understanding basic laws related to public records and archives, which are required as a basic condition common to different tasks, topics describing the understanding of basic laws and regulations related to public records and archives, the understanding of basic theory and methodology concerning archives, as also topics referring to knowledge of digitalization, electronic documents and information systems, as well as management skills concerning the tasks as a whole.

(4) Others

The Standard specifies that revisions may occur according to changes in social norms related to the public records management or the progress of information technology. They also recommend introducing additions and changes when the Standard is applied by different archival institutions, depending on the nature of the holdings and the scale of each organization. Another point included in the text is that despite the fact that the Standard was designed for archivists of public institutions, we hope that it serves as a point of reference and will be applied by other institutions and organizations as well.

Following the precepts of the Standard, we are currently reviewing the issue of training, and working on the creation of a certification system to ensure the reliability and professional expertise of archivists as a profession, which constitutes the next steps in the plan concerning how to secure and train archivists. Regarding the creation of certification system, we established the "Archivist Certification Preparatory Committee" formed by groups and specialists involved in training and fostering archivists within the NAJ, and are now completing a detailed system design²¹. We intend to establish the Archivist Certification Committee (tentative name) and start certification activities in fiscal 2020.

Conclusion

This year, Japan has entered a new era called 'Reiwa'. We consider that we are facing two important challenges in the new era, one; the application of digital technologies through the acquisition, utilization, and preservation of "born-digital" records and digitization of paper records, the other analogue media; the efforts to develop archivists in the digital era.

In the current context, where the rapidly advancing implementation of electronic public records management constitutes a large national project in Japan, the NAJ considers the need to be actively

involved in providing expertise as specialists. At the same time, in addition to collecting diverse materials and ensuring their appropriate preservation, we are required to properly respond to changes in social demands, such as user needs concerning what is expected from an archival institution; our response to the expectations expressed by users, as well as the general public, is to continuously improve our provision of long-term and stable access to records. On the other hand, what remains unchanged by the development of digital technologies behind the management of records and information are the people who use them and the archivists who manage them. Henceforth, in order to consider how to make full use of the huge and diversified records created by digital technologies, we archivists, as human beings, must review and reconsider one by one the very concepts of the tasks themselves. In that sense, it can be said that the Standard described above represents a milestone when it comes to considering the role played by archivists in the digital era. The Standard establishes the following as requirements to be fulfilled by archivists in terms of knowledge and skills: "communication skills, ability to work in an organization or team, being proactive to take the initiative, ability to solve problems, self-control, willingness to engage in continuous learning, adaptability to the newest technologies". The idea behind these requirements is not only to be able to adapt to digital technologies, but also to effectively apply them to several problems faced by archives as a whole, and also to cooperate with specialists and related people from various other areas. The fostering of professional archivists endowed with such convictions and pride is what is expected from the NAJ in this new era, and we intend to establish a solid framework to achieve that goal.

We are also promoting plans to construct a new building for the NAJ, scheduled to be completed in 2026. The NAJ will embark on a substantial functional improvement and increase in personnel to cope with that event. By carrying out the projects presented in this report, we will continue in our efforts to devise the best form of archives to cope with the ever-changing times.

We intend to continue introducing the above trends from time to time, and also to learn from the expertise and experience of various countries and stakeholders, including EASTICA members, applying them to initiatives in Japan whenever possible.

¹ In the following, if not stated otherwise, the term is used in its broad sense, i.e., to introduce digital technologies in part or as a whole in an action or object (including immaterial ones).

² The Digital Government Strategy (Approved by the Strategic Conference for the Advancement of Utilizing Public and Private Sector Data, Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society on May 30, 2017) states that it is "crucial to transform the approach to public administration itself by breaking down the barriers between administrative bodies that impede total optimization and rethinking administrative services in a way that transcends the boundaries between national and local government, and between the public and private sectors, with a central focus on making full use of digital technology and leveraging public-private partnerships."

³ Act No. 103 of 2016.

⁴ Digital Government Ministerial Meeting Decision as of July 20, 2018.

⁵ Act No. 16 of 2019.

⁶ "Declaration to be the World's Most Advanced IT Nation and Basic Plan on the Advancement of Utilizing Public and Private Sector Data (Cabinet Decision of June 15, 2018)."

⁷ "Regarding initiatives to ensure the correctness of the management of public records" (Ministerial Meeting Decision Regarding the Management of Administrative Records, July 20, 2018), https://www8.cao.go.jp/chosei/koubun/koubun_kansatsu/honbun.pdf (last reference date: October 7, 2019).

⁸ The use of digital technologies was considered to be effective as a remedy to avoid tampering through registration of change history, to reduce storage space, to improve efficiency in finding the location of items, and to ensure transparency to the public.

⁹ <https://www8.cao.go.jp/chosei/koubun/hourei/kihonnstekihousin.pdf> (last reference date: October 7, 2019)

¹⁰ A new building for the NAJ will start construction works in fiscal 2021, and completion/opening is scheduled for fiscal 2026.

¹¹ As of March 2018, approximately 93% of files related to administrative records owned by the Government constitute paper media ("Situation regarding the management of public records and archives in fiscal 2017", Cabinet Office Public Records Management Division, February 2019).

¹² NAJ, Activity Overview Report for FY2017 (2018) and Activity Overview Report for FY2018 (2019).

¹³ In this Section, "digitization" refers to the process of making electronic copies of materials that exist as paper media for their preservation.

¹⁴ NAJ, Activity Overview Report (published in June 2019). The number of images does not include items available at the Japan Center for Asian Historical Records. (Document 6, "Current situation of Special Historical Public Records and Archives" (*Refer to 2)

<http://www.archives.go.jp/information/pdf/h30/shiryoku06.pdf> (last reference date: October 7, 2019)

At the National Archives of Japan we are currently engaged in digitization work with the target of achieving at least 2.1 million frames.

¹⁵ We are integrating shareable equipment including hardware, software, Internet connection, and network equipment, while providing services as each separate DA.

¹⁶ "Japan cross-field integrated portal", which enables the integrated search of metadata related to the diverse contents held in Japan by connecting digital archive from different fields such as publications, cultural heritage, media and arts.

As of October 2019, the NAJ is running an experimental version resulting from the alignment and collaboration of organizations in several fields, including the NAJ.

¹⁷ http://www.archives.go.jp/about/report/pdf/da_180330.pdf (last reference date: October 7, 2019)

¹⁸ From the ICA Code of Ethics for Archivists (approved at the 13th ICA Congress on September 6, 1996)

¹⁹ This plan was explained at the "Review meeting regarding functions and facilities of the National Archives of Japan (17th meeting)" by the Cabinet Office on November 30, 2016.

<http://www.archives.go.jp/about/report/pdf/syokumukijunsyo.pdf> (last reference date: October 7, 2019)

²⁰ Regarding the background for the preparation of the Job Standards, refer to the documents provided at the "Review meeting regarding job standards for archivists" and the meeting minutes

(<http://www.archives.go.jp/about/report/syokumukijun.html>).

(Last reference date for both sites: October 7, 2019)

²¹ For details about the event, refer to <http://www.archives.go.jp/about/report/ninsyou.html> (last reference date: October 7, 2019)