The 16th General Conference of EASTICA & Seminar
28 November – 1 December 2023, Shenzhen, China

Theme: The Roles of Archivists and Archives in the Digital Age

Report from the Government Records Service, the Government of the Hong Kong Special Administrative Region of the People's Republic of China

Embracing the Future, Preserving the Past: Highlights of the Work of Government Records Service

(by Miss Jessica LAU, Archivist, Government Records Service)

Introduction

The Government Records Service ("GRS") of the Government of the Hong Kong Special Administrative Region of the People's Republic of China ("the Government") is tasked to oversee the government records management policy and requirements, and to ensure the government records are properly managed and those with archival value are preserved for public access. As we celebrated our 50th anniversary in 2022[1], it was not just an opportunity to recount the significant milestones of GRS, but also to appreciate the relentless efforts of our multidisciplinary team in preserving invaluable archives.

2. In the digital era, the role of archives and archivists has evolved and expanded, becoming increasingly vital in the curation, preservation, and accessibility of our documentary heritage. Even as we navigate the transition to the digital age and adapt to the demands of the information age, GRS' aspiration and unwavering commitment to preserving our local documentary heritage remain unchanged.

3. In the ensuing sections of this report, we will highlight GRS' major work in digital preservation over the recent years, exploring how we have embraced the

[1] A thematic website to showcase the development of GRS over the past five decades and our valuable holdings, as well as to share some interesting behind-the-scene stories of our daily work was developed to celebrate the 50th anniversary at https://www.grs.gov.hk/ws/online/50years/en/home/index.html.

challenges and opportunities of the digital age. Moreover, we are thrilled to present our new Archives Centre ("AC") project. With a targeted completion date set for 2028, we have a unique and pivotal opportunity to shape our archival landscape, embracing innovative technologies while honoring our commitment to the preservation and accessibility of our documentary heritage.

Major Initiatives in Digital Preservation

Consultancy Study on Long-term Preservation of Electronic Records

4. To address the challenges of preserving electronic records within the Government, a comprehensive consultancy study on the long-term preservation of electronic records was completed in 2021. This study set the stage for the development of government-wide policies, strategies and techniques for managing and preserving electronic records. It utilised the expertise of leading international counterparts and sought insights from a diverse group of stakeholders, including records managers, information technology staff, and business system owners across selected bureaux and departments ("B/Ds") in the Government, as well as management staff in GRS. These interactions allowed the consultant to design and formulate a holistic set of policies, strategies and guidelines to help both GRS and B/Ds navigate the challenges of preserving electronic records in a rapidly evolving digital landscape.

5. The study also proposed various technical solutions to the preservation of electronic records generated in business systems to facilitate B/Ds in managing electronic records. With the paradigm shift in recordkeeping practices from paper records to electronic ones, the study underscored the need for profound changes in staff mindset, approaches and methodologies. It proposed comprehensive training and change management initiatives for GRS and B/Ds, ensuring a smooth transition to these new practices and technologies.

Formation of a Task Force to Oversee the Implementation

6. Building on the groundwork laid by the consultancy study, it becomes clear that a dedicated team is needed to ensure the successful implementation of the study's recommendations. Therefore, a Task Force on the Long-term Preservation of Electronic Records ("the Task Force") has been established to oversee the implementation of various initiatives, which include pilot projects to

study the feasibilities of the proposed technical solutions, in August 2023. The Task Force operates within the established Electronic Information Management ("EIM") Framework of the Government, providing a strategic approach to drive service-wide development of EIM. Several Focus Groups will also be formed to support the Task Force, each tasked with the role of monitoring and/or participating in various aspects of the initiatives, such as technology enhancement, change management, and training for GRS and B/Ds.

7. With the gradual implementation of the government-wide long-term preservation of electronic records in the coming years, our success will depend on several crucial elements. Raising awareness about the initiative, ensuring effective communication with, and providing comprehensive guidance to various B/Ds are critical. Moreover, the roles of training and change management cannot be overstated, as they will facilitate a broad understanding of the distinct roles and responsibilities that different staff levels will assume in this process.

Setting up a Digital Repository to Pave Way for a Digital Archive

8. A digital repository with the six functionalities based on the international standard ISO 14721:2012 "Space Data and Information Transfer Systems — Open Archival Information System (OAIS) — Reference Model" was set up in 2020. Various formats, such as digitised paper, photographic and audio visual records, as well as born digital records have been ingested into the digital repository. The digital repository is hosted on the Government Cloud Infrastructure Services platform with round-the-clock technical support services. The high scalability of the cloud service enables flexible upgrade and reconfiguration of the system to cater for expansion in the future. The system is backed up in quadruplicate copies including off-site backup guaranteeing full recovery after unexpected disasters. Furthermore, risk assessments on the file formats of electronic records to identify the obsoletes for migration and regular fixity checking to detect any unexpected file changes or corruption are carried out to ensure all archival electronic records are securely preserved with authenticity, integrity, reliability and usability upheld over time.

New Archives Centre

Joint Cavern Development Project

9. Since its commissioning in 1997, the Hong Kong Public Records Building has been the first purpose-built archival facility in Hong Kong for preserving archival records of the Government. Over time, our storage capacity has reached its limit. To deal with this challenge, GRS has explored potential sites for expansion as a long-term solution. Concurrently, we have reconfigured our storage racks as an immediate solution to increase capacity. We have also converted part of the inactive records storage spaces in Tuen Mun Government Storage Centre since 2014 as temporary archives repositories. However, these temporary repositories don't fully meet international standards for permanent archival storage, highlighting the need for a new AC to ensure the long-term preservation of our invaluable archives.

10. To support the sustainable development of Hong Kong, it is the established policy of the Government to adopt a multi-pronged approach to enhance land supply. One strategy is the relocation of suitable government facilities into caverns. Government studies conducted in 2011 and 2015[2] identified the potential of using caverns for archives facility, underscoring their suitability for archival storage. This contributed to the initiation of a joint cavern development project at the Anderson Road Quarry Development site in 2018, which includes, inter alia, the construction of a new AC for GRS. A consultant was commissioned in 2021 to formulate a comprehensive plan for the project's implementation and delivery. Finally, the project received funding approval and commenced in July 2023. This manifests our commitment to finding innovative, sustainable solutions for our growing archival needs.

11. As we plan for the new AC, we recognise that this is a prime opportunity to re-envision GRS' role and to reimagine how we can elevate our visibility, transform our services, and connect with a wider audience in the digital age. In embarking on this journey, there are three key themes that we consider pivotal - sustainability, innovation and a user-centric approach.

Sustainability

12. The core mission of any archives is to safeguard archival records for future generations. Embracing sustainable practices in the development and operation

[2] "Enhanced Use of Underground Space in Hong Kong" commissioned by the Civil Engineering and Development Department ("CEDD") in 2011. In 2015, CEDD completed an Engineering Feasibility Study under "Long-term strategy for Cavern Development-Feasibility Study".

of archives is an essential part of fulfilling this mission. Our commitment to sustainability is embodied in the design and construction of our new AC where sustainable construction principles are being integrated, enhancing the overall sustainability of our archival operations. The new AC project involves the construction of a cavern complex and connecting adits, covering an area of approximately 6,500 square meters and a total volume of roughly 190,000 cubic meters inside the mountain body of Tai Sheung Tok at the Anderson Road Quarry Development site, and a four-storey AC at the portal site area with three-storey archival repositories within the caverns.

13. Caverns offer a stable, secure and inherently energy-efficient environment, providing significant advantages for climate control in the storage areas. They also provide ample flexibility for potential future expansion, ensuring our ability to adapt to evolving archival needs. The inherent characteristics of caverns, including strong cavern walls that serve as a natural barrier against potential disasters, consistent temperature and humidity levels, and protection from sunlight and weather variations, contribute to the reduction in energy consumption and carbon emissions. By situating our AC within caverns, we are not only reducing operational costs in the long run, but also aligning with Hong Kong's commitment to environmental sustainability.

14. The new AC will feature six archival repositories housed within the caverns. In the portal building, we will establish a processing area for conservation, preservation, appraisal, and accessioning of records, along with office spaces and public service areas. These public service areas will encompass an archival records search room and a multi-purpose room. Additional features include a public piazza, a rooftop garden and vertical greening on the building's facade. These green spaces not only enhance the local environment but also contribute to the sustainability of the building. Moreover, the building will incorporate various energy-efficient features, renewable energy technologies and rainwater recycling systems, underscoring our commitment to energy conservation and water preservation.

15. Sustainability is not only in terms of the construction of the new AC but also in our broader operational practices. As we strive to align our work with the Government's commitment to sustainable development, we seek to implement strategies that ensure the preservation of our archival records while minimising our environmental footprint. This commitment to sustainability is a driving

force in the design of our new AC, influencing not just the structure and storage solutions, but also the way we manage our resources and serve our community.

Innovation

16. Innovation is another significant pillar in our planning. The digital age has revolutionised the way archival institutions operate and serve their communities. In designing our new AC, we are embracing innovative technologies and practices that will enable us to enhance our services, improve accessibility to our collections and expand our reach.

17. We are considering the implementation of Automated Storage and Retrieval System ("ASRS"), which can significantly increase storage efficiency while ensuring the safe and precise retrieval of archival materials. It also minimises the risk of damage from handling and environmental exposure. We are also exploring the use of Warehouse Management System ("WMS") to streamline our inventory management and improve the traceability and accessibility of our archival records. This integration of ASRS and WMS with our online catalogue is a key focus in our innovation strategy. By doing so, we aim to transform user's experience in discovering archives, making it more intuitive, efficient and user-friendly.

18. Furthermore, the use of digital twin technology, a virtual model of the physical building and its operations, will allow us to simulate and optimise our archival processes and manage our resources more effectively. These innovative approaches, and others under consideration, could significantly contribute to transforming the way we operate and deliver our services in the new AC.

User-Centric Approach

19. The ultimate purpose of an archives is to make archival records accessible to the community and invite the users for exploration and discovery. Over the years, GRS has undertaken various initiatives which aimed at making our collections more accessible and meaningful to the public. We have developed interactive exhibitions, educational programs and online resources that cater for a diverse range of users, from students and teachers to researchers and the general public.

20. We will engage our users, seeking their inputs and feedbacks at different stages of the new AC project. We aim to create a user-centric design by enhancing the online catalogue, integrating it with new storage and retrieval systems, and developing online and on-site resources that could cater for the diverse needs of our users. Through public engagement initiatives, we also aim to foster a closer connection with our community, making the archives a vibrant and interactive space for learning and discovery.

Conclusion

21. The digital age brings both challenges and opportunities for the archives and archivists. As GRS works towards preserving digital records and developing the new AC, we recognise the complexity of these tasks. Yet, we also see the immense possibilities that this digital revolution presents. We have unique opportunity and responsibility to embrace the future while preserving the past. Through the integration of advanced technologies and a user-centric approach, we aim to create an archives centre that is a vibrant, accessible, and sustainable hub for learning, discovery and connection. This is our vision for the future of archives in the digital age.