



# Digital Preservation in Disruptive Times

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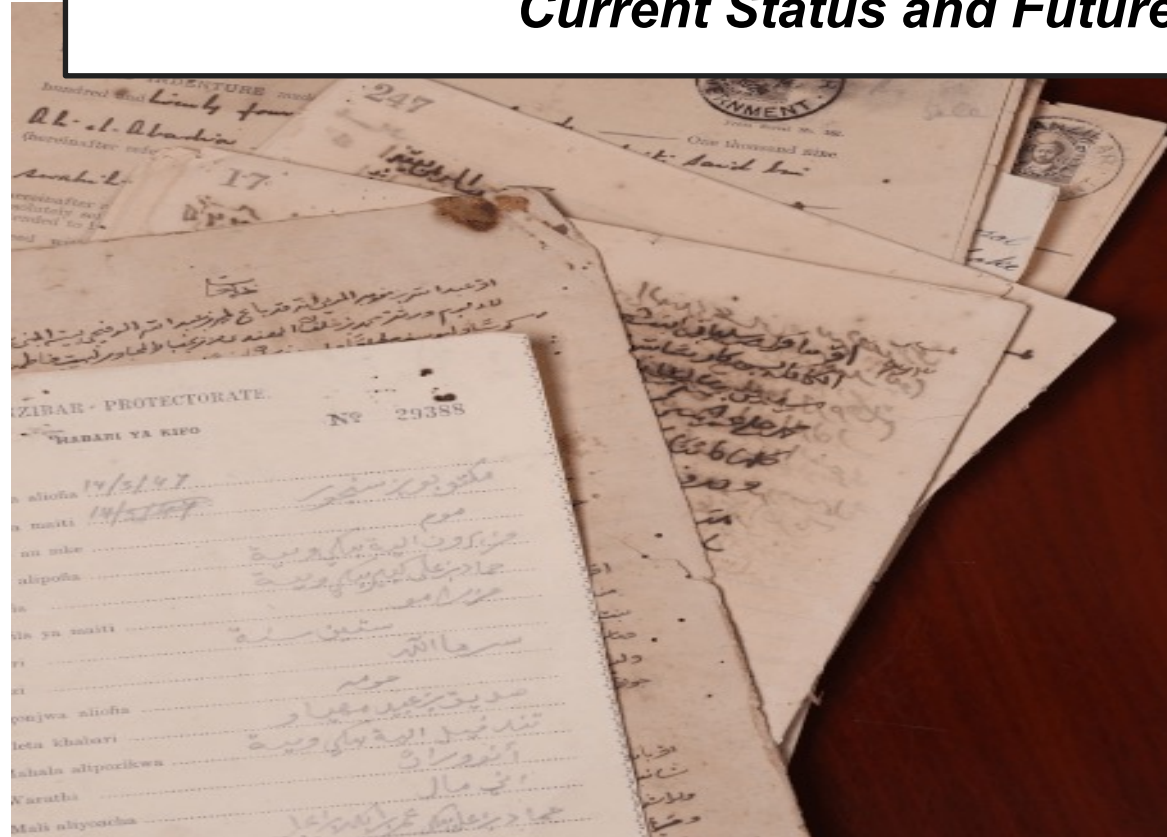
## Digital Accessibility

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# DIGITAL PRESERVATION AND ACCESSIBILITY OF ARCHIVES IN OMAN: *Current Status and Future Directions*

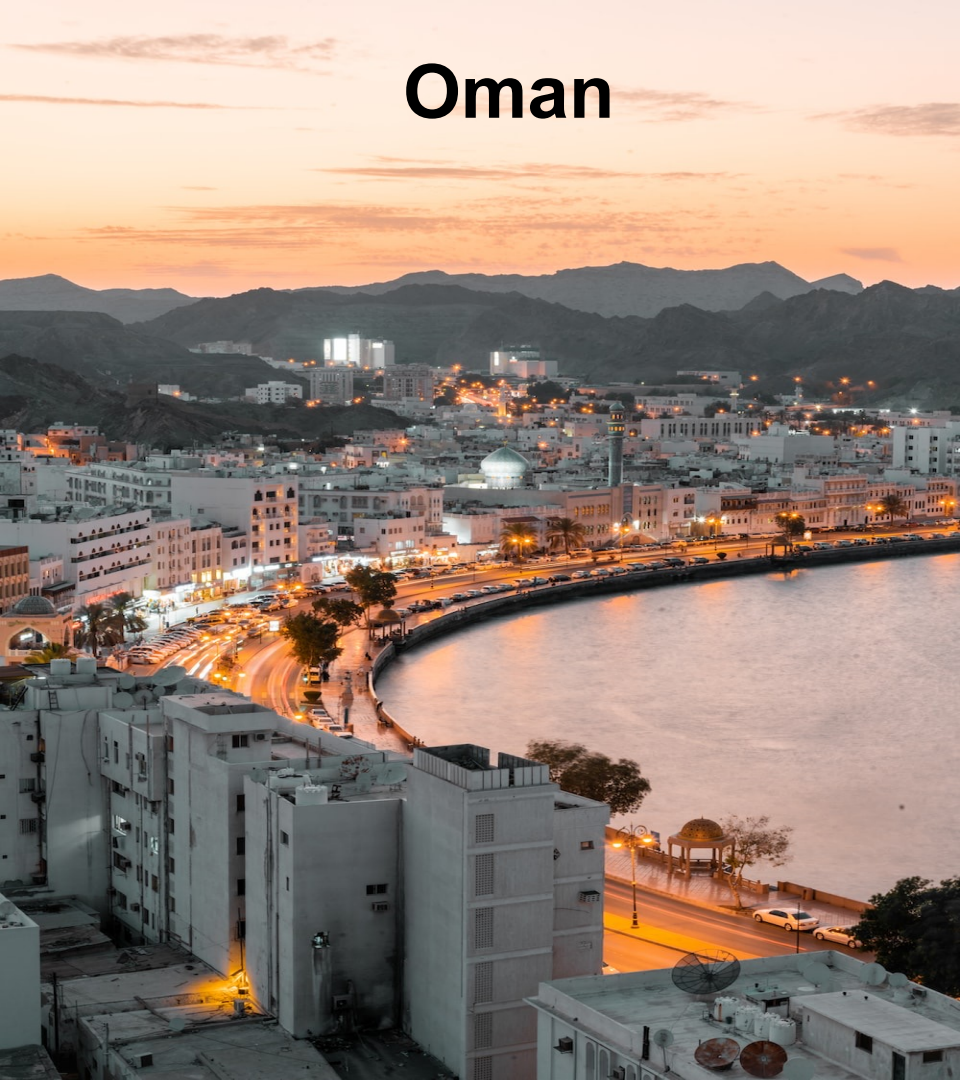


# Presentation outline

- The study context (Oman)
- The Digital Age and Preservation in Oman
- Related literature (Summary)
- The significance of the study
- Aims of the Study
- Methodology
- Limitations of the study
- Analysis and discussion
- Conclusion



# Oman



1. Oman is located in the Middle East, on the southeastern coast of the Arabian Peninsula.
2. The main Language is Arabic
3. Oman has a population of over 4 million people (Mix of cultures)
4. Oman is a country with a rich history and culture.

# The Digital Age and Preservation in Oman

- **Digital Revolution:** The 21st century has witnessed an exceptional digital revolution, reshaping how we create, store, and access information.
- **Oman's Digital Landscape:** Oman, like many other nations, has embraced digital technologies across diverse sectors - from education to business and cultural heritage.
- **Importance of Digital Preservation:** As Oman's digital content volume surges, the preservation of this digital heritage becomes paramount.
- **Challenges:** However, this surge brings forth significant challenges to the long-term accessibility and usability of digital information.
- **The Paradox:** While digital technologies offer immense opportunities, the lack of technical infrastructure, standardization, and interoperability pose obstacles.

# The literature

## Digital Preservation Challenges in Oman

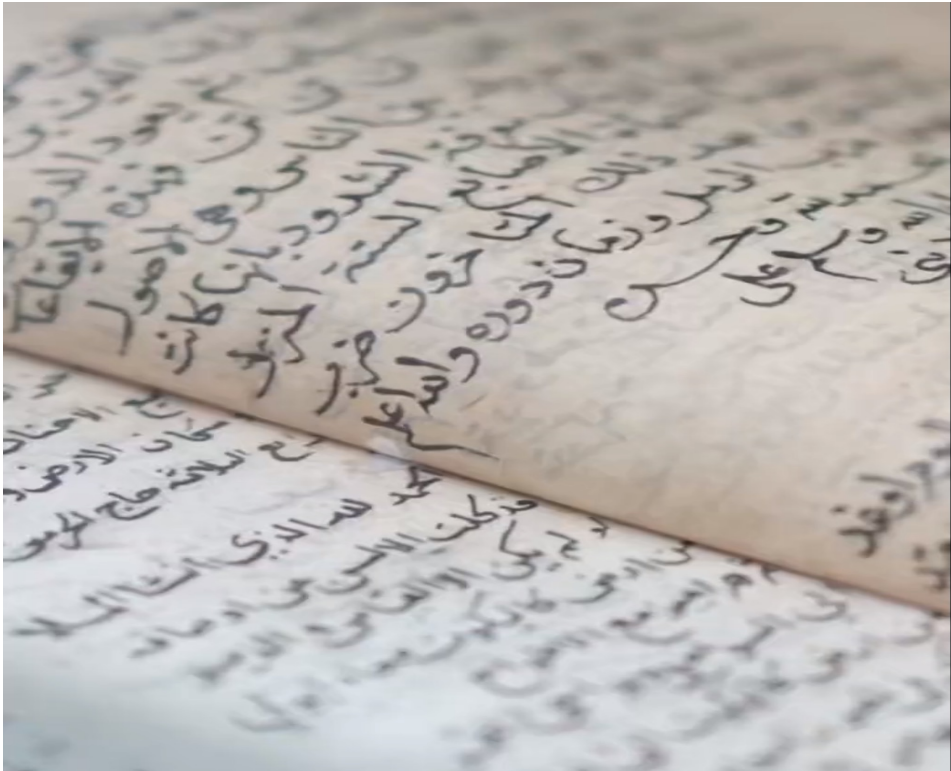
- Limited technical infrastructure and expertise
- Lack of standardization and interoperability among digital systems
- Impediments to long-term preservation and access (Al Hinai, 2016; Al Mughairi; Mehta & Hemmy, 2021)
- The need for stronger policies, regulations, and investment (Aboraya et al., 2021)

## Digital Preservation Opportunities in Oman

- Potential to support digitization of cultural and heritage collections
- Enhancing efficiency in government and business operations
- Importance of policy support and technical investment (Al Hinai, 2016; Aboraya et al., 2021)



# The significance of the study



Understanding the challenges and opportunities of digital accessibility and preservation can help identify effective strategies for promoting access to information. Additionally, more research is needed on how digital technologies can promote cultural inclusivity and diversity in Oman.

## Aims of the Study

- **Emphasize Importance:** Highlight the significance of digital preservation and accessibility within Omani institutions.
- **Identify Challenges and Opportunities:** Explore the difficulties faced in preserving and accessing digital documents in Omani institutions.
- **Future Directions:** Examine potential strategies for improving digital preservation, including emerging technologies and best practices.
- **Promote Inclusivity and Diversity:** Investigate how digital technologies can promote cultural inclusivity and diversity in Oman.



# Methodology

## Research Approach

- Conducted semi-structured interviews with ten experts from diverse Omani organizations.
- Focused on professionals from government sectors.

## Sample Selection

- Used purposive sampling to ensure expertise and experience in the field.
- We selected a variety of government organizations to represent different sectors.

## Data Collection and Analysis

- The interviews were conducted in person by a research assistant specializing in digital Archives and lasted approximately 45 minutes each.
- We used thematic analysis to analyze the data from interviews, in which themes and patterns were identified and coded across the interview transcripts and grouped

| Participant | Organization                                 | Sector     | Gender |
|-------------|--|------------|--------|
| 1           | Oman Airports                                | Government | Male   |
| 2           | Oman Air                                     | Government | Male   |
| 3           | The General Secretariat of Tender Board      | Government | Male   |
| 4           | Ministry of Social Development               | Government | Female |
| 5           | Anonymized                                   | Government | Male   |
| 6           | Environment Agency                           | Government | Female |
| 7           | Ministry of Justice and Legal Affairs        | Government | Male   |
| 8           | Omani Board of Medical Specialties           | Government | Male   |
| 9           | Ministry of Endowments and Religious Affairs | Government | Male   |
| 10          | Namaa Holding                                | Government | Male   |

## ***Limitations***

- **Small Sample Size:** The sample size, consisting of ten experts, may not fully capture the diverse range of perspectives and experiences in digital preservation in Oman.
- **Sector-Specific Focus:** Our interviews were restricted to professionals from specific sectors and organizations, limiting the generalizability of our findings to other sectors.

### **However, the Study offers:**

- **Valuable Insights:** Despite the limitations, our study offers valuable insights into current digital preservation and accessibility practices in Oman.
- **Starting Point:** It serves as a valuable starting point for future research to delve deeper into this critical area

# Analysis and Discussion



# Importance of Digital Preservation in Omani institutions :

- Respondents demonstrated a strong awareness of digital preservation's significance.
- Seen as crucial for business management, document control, and efficient retrieval.
- Often considered a core part of participants' job responsibilities.
- Benefits mentioned include rapid information retrieval, space-saving (replacing paper documents), enhanced information sharing, and increased confidentiality.
- Digital preservation helps bypass spatial and temporal limitations, making documents accessible from anywhere, anytime.
- Reduces operational costs by minimizing file copying.



# Digital Preservation Process:

- Preservation activities take place both internally within institutions and externally.
- Mixed approaches: internal servers, cloud computing, or external servers, depending on the organization.
- Mention of the "Wosool" system by the National Records and Archives Authority (NRAA) for national cloud computing.
- Some organizations striving to find systems that align with NRAA standards.
- Future focus on electronic document management programs and compatibility with NRAA standards.
- Emphasis on the need for a system that rationalizes document organization and retrieval processes.



ووسول  
WOSOOL

# Wosool (Accessibility)



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## Vision For The Future

Wosool is one of the bold strokes of Oman 2040 vision , of which technology is one of its main pillars. Wosool will enhance the digital transformation efforts in government agencies to achieve the vision.



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# Digital Preservation Strategy and Standards:

- Diverse approaches to strategy implementation among different organizations.
- Some participants mentioned the absence of a clear strategy or policy for data preservation.
- Mention of policies, standards, and regulations from relevant governmental bodies.
- Focus on compliance with the National Records and Archives Authority (NRAA) guidelines.
- Use of various technological tools for digital preservation, including computers, databases, scanners, electronic file sharing, photocopiers, and servers.

The screenshot shows the website for the National Test Center. The header includes the logo of the Sultanate of Oman National Records & Archives Authority and navigation links: HOME, ABOUT US, ARCHIVES, MEDIA CENTER, SERVICES, and RECORD MANAGEMENT. A secondary navigation bar contains icons and labels for: Services in management of documents, National Test Center (highlighted), Procedures Guide, Technical Specifications, list of Certified Systems, Workshops EDRMS, and Newsletter. The main content area is titled "National Test Center" and features four sections:

- WHAT IS THE NATIONAL TESTING CENTER**: It is a center for testing and certifying Electronic Records and Document Management Systems (EDRMS) based on NRAA's National Standards and Guidelines and the Functional Specifications (ISO 16175). This includes systems used by government agencies, or those systems being marketed by companies in Oman to government agencies. Moreover, this center is operated by the National Records & Archives Authority.
- OBJECTIVES OF THE CENTER**: The National Test Center seek to achieve the following objectives:
  1. Ensure that all EDRMS in use by government agencies in the Sultanate of Oman are compliant with the national standards & guidelines for the management of electronic documents and records.
  2. Provide a useful reference for government agencies, which includes details of compliant EDRMS systems, to facilitate their procurement of such systems.
- SCOPE OF WORK OF THE NATIONAL TESTING CENTER**:
  1. Formal testing of EDRMS solutions where the testing criteria are based on NRAA's national standards & guidelines and the functional specifications (ISO 16175).
- WHO CAN APPLY FOR CERTIFICATION TESTING?**:
  1. All government agencies and government-owned corporations
  2. All companies with EDRMS-related products that they wish to market in the Sultanate of Oman



# Challenges of Digital Preservation:

- Noted challenges include technological obsolescence, leading to difficulties in using outdated electronic systems.
- Security risks, including hacking, data theft, and erasure, necessitating adherence to current security policies.
- High data volume and information flow requiring expertise in information technology, substantial storage capacity, and risk management.
- Complex document management systems and changing file formats pose difficulties.
- Financial documents often not managed in digital form, leading to challenges in understanding document context.
- Mention of the importance of protecting media and containers, beyond data loss prevention

# Opportunities of Digital Preservation:

- Digital preservation offers opportunities for improved administrative memory, streamlined document sharing, and collaboration.
- The participants referred to the benefits of monitoring and auditing by multiple users.
- Potential to leverage digital technologies in data processing, organization, and description.
- Important for linking administrative institutions, facilitating service provision, and developing electronic and smart governments.
- Benefits include cost savings in storage and ease of data updates.
- Easy and quick access to documents supports government efforts in service improvement.
- Emphasis on the accuracy, ease, and speed of files retrieval.

## Future Directions for Digital Preservation:

- Variability in the presence of a clear strategy for digital preservation among organizations.
- Explicit mention was made of certain instances wherein specific plans are in motion to acquire systems that align with the standards set forth by the National Records and Archives Authority (NRAA).
- Mention of the "Wossool" program licensed by the Omani government as a common direction.
- Anticipation of a strong future in digital preservation due to government initiatives like the government document management system (Wossool).
- Focus on technological alignment and special strategies to keep up with advancements.

# Digital Preservation Specialists:

- Differing approaches to the designation of responsibilities for digital preservation.
- Some organizations have designated individuals or departments responsible for digital preservation.
- The inclusion of digital units, experts in document management, and roles specifically dedicated to electronic preservation.
- In contrast, some organizations do not have specific individuals responsible for digital preservation.
- Highlight of the importance of dedicated individuals or departments to ensure efficient preservation.

# Adoption of New Technologies:

- Usage of cloud computing varies among organizations.
- In June 2021, the Ministry of Transport, Communications, and Information Technology launched a policy for cloud computing to regulate government usage, focusing on classification, security, and administration.
- Some organizations use cloud computing, while others save data on internal company servers.
- Importance of renewing contracts critical for the maintenance of digital preservation.
- Some organizations are interested in adopting modern technologies related to big data and blockchain.

# Data Protection and Rights:

- Varied knowledge and opinions on data protection and the right to be forgotten.
- Reference to the existence of a Personal Data Protection Law in Oman is evident, yet the level of awareness regarding this legal framework exhibits visible differences among the participants.
- Some rely on directives and policies from relevant authorities, while others view additional guides as unnecessary.
- The acknowledgment of the necessity for legislative measures aimed at restricting potential vulnerabilities and gaps in access to personal data is evident.
- The participants' recognition of the Royal Decree outlining the establishment of the National Records and Archives Authority (NRAA), and its concurrent role in defining the parameters governing document access was noted during the study

## In conclusion

The significance of digital preservation is readily apparent within the purview of the surveyed institutions, presenting a compelling imperative for professionals specialized in archival sciences. A comprehensive national initiative geared towards preservation is presently in progress, with a specific emphasis on mitigating obstacles such as technological obsolescence, security vulnerabilities, and the substantial demands for data storage. The formulation and implementation of robust digital preservation strategies in the context of Oman assume paramount importance, poised to yield multifaceted advantages, enhance operational efficacy, and safeguard sensitive personal information.



# References

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Please feel free to contact me if you have  
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