



*UNIVERSITY OF OXFORD*  
*GARDENS, LIBRARIES AND MUSEUMS*

**DIGITAL PRESERVATION STRATEGY**  
**2018–2021**

VERSION 1.0

# GLAM DIGITAL PRESERVATION STRATEGY

## MISSION

Oxford University's collections, based in its Gardens, Libraries and Museums (GLAM), are of universal significance, representing the history, science, culture, and knowledge of all major global civilizations and the natural world. GLAM's digital collections are essential resources of cultural, intellectual and scientific importance.

GLAM's Digital Strategy (published in 2017) articulates its commitment to preserving digital collections for current and future generations. By ensuring preservation of its digital collections, GLAM enables research and scholarship based on primary and unique sources. The preservation of digital collections is also essential for many of GLAM's public engagement activities.

## AIM

The purpose of the GLAM Digital Preservation Strategy is to guide preservation efforts across GLAM during a three year period (2018-2021). The Digital Preservation Strategy will prepare institutions to achieve the goals which were first set out in the GLAM Digital Strategy (see appendix A). The overarching aim of the Digital Preservation Strategy is therefore to:

*“Build the foundation required to preserve digital collections across GLAM, for the benefit of current and future generations”*

By enhancing its capacity in the areas of:

- Governance and policy
- Staff skills and training
- Workflow development, and
- Digital infrastructure

GLAM will build the foundation required to undertake digital preservation. Each area is recognized as being of equal importance to ensure that future digital preservation activities are successful and sustainable.

## STRUCTURE OF STRATEGY

The GLAM Digital Preservation Strategy articulates six objectives, which GLAM will work towards during 2018-2021. For each of the six objectives GLAM has identified a number of enabling changes which will aid in practically implementing the strategy.

### RELATED DOCUMENTS

The digital preservation strategy should be read in conjunction with:

- The GLAM Digital Strategy
- Local institutional strategies and policies

### GOVERNANCE

Responsibility for governance of the Digital Preservation Strategy lies with the GLAM group, who will also oversee the strategy implementation plan.

### DEFINITIONS:

<i>GLAM institutions</i>	Refers to individual members of Gardens, Libraries and Museums
<i>GLAM group</i>	Refers to cross-institutional initiatives that pool the knowledge and expertise of multiple GLAM members
<i>Digital Collection</i>	In the context of the Digital Preservation Strategy, a “digital collection” refers to the digital files and metadata which have enduring value and require active long-term digital preservation to ensure future access
<i>Long-term preservation</i>	<b>Long-term is:</b> a period long enough to raise concern about the effect of changing technologies, including support for new media and data formats, and of changing user needs  <b>Long-term preservation is:</b> the act of maintaining correct and independently understandable information over the long-term

### **Objective 1: GLAM will establish the governance required to ensure that digital preservation activities are sustainable**

#### *Enabling changes:*

- 1.a. The GLAM group will identify how the Digital Preservation Strategy is managed and overseen within the wider GLAM context
- 1.b. GLAM institutions will ensure that responsibility for overseeing digital preservation activities is assigned to relevant members of staff
- 1.c. GLAM institutions will put in place digital preservation policies which outline their approach and commitment to digital preservation
- 1.d. The GLAM group and GLAM institutions will negotiate Service Level Agreements with third-party service providers<sup>1</sup>, to ensure that digital preservation requirements are implemented and regularly communicated to those staff responsible for digital preservation

#### *Benefits:*

- *GLAM can attract funding and new digital collections by demonstrating an ongoing commitment to digital preservation*
- *GLAM has governance in place for monitoring and reacting to risks to digital collection content*

### **Objective 2: GLAM will identify digital collection content which requires long-term preservation**

#### *Enabling changes:*

- 2.a. GLAM institutions will develop records retention schedules which specifies digital collection content that requires long-term preservation efforts
- 2.b. GLAM institutions will identify the location of digital collection content *which requires long-term preservation efforts*
- 2.c. GLAM institutions will, on an ongoing basis, identify what file formats it manages and uses for its digital collections

#### *Benefits:*

- *GLAM knows what digital content it holds that requires digital preservation intervention, and can develop plans for their management accordingly*
- *GLAM reduces the risk of permanent loss of unmanaged digital collection*

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<sup>1</sup> Such services may include, but are not limited to, providers of third-party storage infrastructure or digitization services

## *STAFF SKILLS AND TRAINING*

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### **Objective 3: GLAM will embed knowledge about digital preservation amongst staff**

#### *Enabling changes:*

- 3.a. GLAM institutions and the GLAM group will ensure that staff supporting GLAM's collection management and storage systems have a working understanding of digital preservation concepts and practices as pertaining to their role and responsibilities
- 3.b. GLAM institutions and the GLAM group will support staff who create digital collection content to acquire a basic understanding of digital preservation principles
- 3.c. GLAM institutions will provide training and ongoing support to ensure uptake and use of workflow process documentation among staff (see *objective 4*)

#### *Benefits:*

- *GLAM has staff in place to enact digital preservation principles and workflows*
- *GLAM's staff appreciate the value of conforming to digital workflows and standards*

## *WORKFLOW DEVELOPMENT*

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### **Objective 4: *GLAM will put standardised processes in place for the creation and management of digital collections***

#### *Enabling changes:*

- 4.a. GLAM institutions will create and regularly maintain process documentation which describes their digital collection management systems and “end-to-end” workflows
- 4.b. GLAM institutions will create data management plans which specify the location of digital copies of collection content, storage monitoring, metadata, and file naming standards
- 4.c. The GLAM group will research and recommend standards for creating and managing born-digital and digitized collection content

#### *Benefits:*

- *GLAM will reduce the complexity of workflows and likelihood of human error*
- *GLAM will reduce the cost and potential damage to physical artefacts due to re-digitization*

**Objective 5: GLAM will ensure that digital collections are actively managed within secure and robust environments**

*Enabling changes:*

- 5.a. GLAM institutions will manage their collections within systems which retain robust links between metadata and digital files
- 5.b. GLAM institutions will implement appropriate restrictions for read, write, move, and deletion of collection content for different user types, as well as monitoring access audit trails
- 5.c. GLAM institutions will document exit strategies for extracting metadata and digital files out of systems used for managing collections

*Benefits:*

- *GLAM reduces the risk of permanent loss of unmanaged digital collections*
- *GLAM reduces the likelihood of human error and unauthorized access to collection content*

**Objective 6: GLAM will manage the location of all copies of collection content, and ensure that copies have not been deleted or corrupted**

*Enabling changes:*

- 6.a. GLAM institutions and the GLAM group will aim to consolidate digital collection content, ensuring that multiple distinct copies exist on different storage technologies in geographically diverse locations
- 6.b. GLAM institutions will capture checksums<sup>2</sup> for digital files which form part of its digital collections
- 6.c. GLAM institutions will ensure that they monitor for any unauthorized deletion or corruption of collection content at the file level

*Benefits:*

- *GLAM can demonstrate that it has not lost any digital collections over time*
- *GLAM protects itself against reputational damage caused by permanent loss of digital collection content*

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<sup>2</sup> An algorithmically-computed numeric value which can be used to monitor that digital files remain unchanged

### **Digital Preservation**

*The GLAM institutions collectively hold data and digitized material at petabyte scale, and the rate of growth will inevitably increase. This includes data held on behalf of researchers and institutions in other parts of the University, often in support of compliance with funding requirements and for legal and evidential reasons. The cost of replicating this digital material if it were to be lost would be enormous, and the risk of reputational damage, as well as the damage to the University's activities in research, education and public engagement, would be catastrophic. In recognition of the significant risks associated with digital loss, digital preservation is an essential component of the GLAM digital strategy.*

*GLAM will:*

- *Develop preservation plans for all its digital collections, taking a life-cycle management approach. Build and maintain key infrastructure to ensure the secure and safe storage and management of its digital assets, ensuring the integrity, authenticity and validation of stored digital content*
- *Identify and implement essential preservation tools to avoid technological obsolescence and ensure digital content can be reliably accessed long into the future*
- *Manage risks to preserved content throughout the digital content lifecycle*
- *Ensure that data and systems are securely protected*
- *Embed digital sustainability as an organisational principle for GLAM*
- *Audit its systems, processes, approaches and infrastructure to ensure that its approaches are sound*