A Guide to Making the Business Case for Digital Preservation

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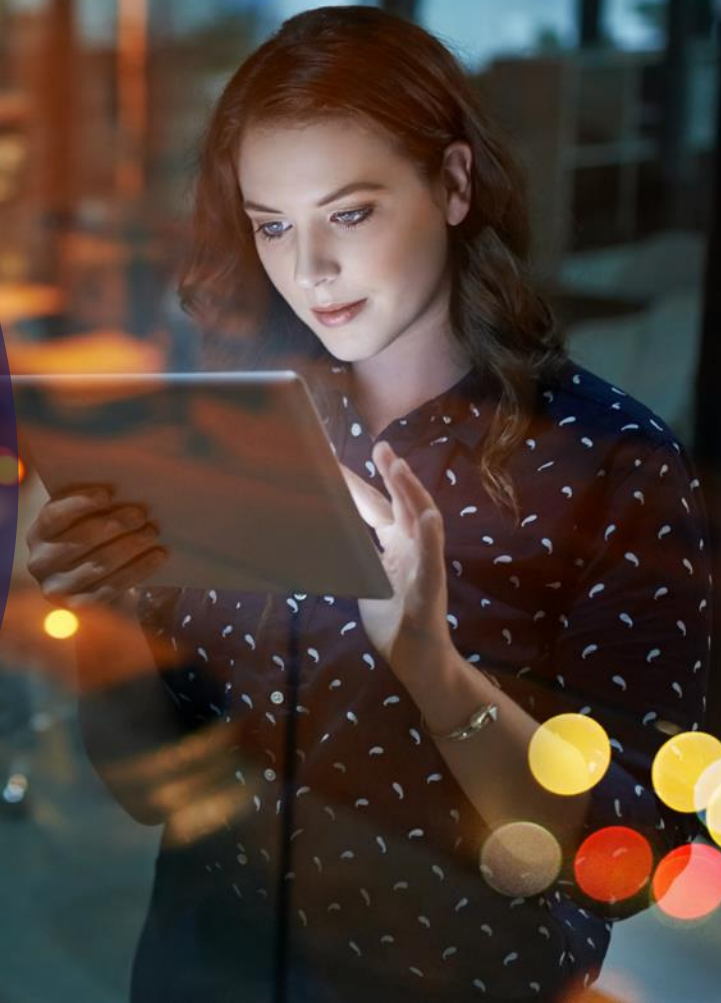
Objective of this Guide

- To help practitioners and other stakeholders make a compelling business case for digital preservation capabilities in their organization:

  - A **business case template** with example headings and content

  - A **contents guide** to some of the best practice rationale and statements for Digital Preservation

  - A **Digital Value at Risk (DVAR) Calculator** that can be used to demonstrate the degree of risk and potential impact of digital information loss

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How to use this Guide

- **Business Case Template**
  - A boilerplate guide for business case document (10-20 pages)
  - Select the headings and content that are relevant to your organization

- **Contents Guide**
  - Examples of business drivers, types of information that require digital preservation, expected benefits, etc.
  - Select the content that is relevant to your organization

- **Digital Value at Risk Calculator**
  - Identify types of digital information that are particular to your organization
  - Complete the Risk Factors and Consequences from drop down menus
  - Generate a profile of the degree of risk and potential impact of digital information loss

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Business Case Template

Section	Content	Typical Length
Executive Summary	• Position Statement • Background • Recommendation	1-2 Pages
Introduction	• Objectives • Business Drivers & Long-Term Information • Expected Benefits	2-4 Pages
Program	• Solution Description • Resources & Investment Plan • Success Measurement	2-4 Pages
Appendices	• A: DVAR Calculator • B: Risks Assessment • C: Options Assessment • D: Stakeholder Analysis • E: Training Plan	5-10 Pages

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Executive Summary

Position Statement
- Your organization's strategic priorities and operational policies
- How digital preservation specifically supports your organization's Strategy, Risk Management Policy, Information Security Policy, Records Management Rules, Data Protection Policy, Research & Development
- Your objectives and business drivers for digital preservation capabilities
- Expected benefits (aligned to strategic and operational priorities) and ROI

Background
- A definition of digital preservation (see next slide)
- Information assets that need to be preserved and their value
- Key stakeholders and their priorities
- Options for ensuring integrity, authenticity, usability and searchability of long-term assets

Recommendation
- Business options, risks, costs and investments
- Timelines, deliverables, roles & responsibilities
- Your key recommendation

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Definition of Long-Term Digital Preservation

- Digital Preservation is concerned with providing long-term access to digital objects, preserving continuity in form as well as functionality

- The ISO 14721:2012 Standard defines long-term as "long enough to be concerned with the impacts of changing technologies, including support for new media and data formats, or with a changing user community. Long term may extend indefinitely."

- Longevity of digital information is not simply a back-up of data, because long-term digital preservation must consider format, software and hardware obsolescence, among other issues

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Objectives

Select objectives that best describe why your organization requires digital preservation capabilities:

- Take urgent action to safeguard our most valuable digital information
- Meet our legal and regulatory responsibilities (e.g., for data protection and freedom of information)
- Ensure that access to our digital resources is maintained, preserving both business information and records of permanent historical value for future users
- Ensure that processes are implemented across our organization to ensure that newly created information adheres to digital preservation standards
- Safeguard our investment in the creation and maintenance of digital resources, enabling full benefits realization and avoiding waste expenditure in the future (e.g. on expensive digital archaeology)
- Provide input to other information-related projects to ensure that digital preservation issues are considered in their planning, thus avoiding or reducing further costs
- Support and underpin all our operations which create or receive material in digital form by ensuring that access to it can be guaranteed for as long as it is needed
- Contribute to the reduction of data storage costs by using the most efficient archival storage technologies

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Business Drivers

Select the most appropriate business drivers for your organization:

Business Driver	Benefit
Collection development	Organize digital content as an organizational asset
Corporate memory	Maintain accumulated knowledge of the organization
User access	Ensure retrievability and access for specific users over long periods of time
Information re-use	Enable re-purposing and value-added use of digital data
Reputational protection	Safeguard organization's standing in the community
Legal & regulatory compliance	Comply with information access, privacy, financial, health & safety requirements
Business continuity	Eliminate data loss leading to catastrophic business disruption
Efficiencies & savings	Support a streamlined information governance strategy
Protects investment	Safeguard against commercial loss of digital content and intellectual property
Support digital ways of working	Future-proof and enable on-line ways of working between staff, customers and partners

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Information Requiring Digital Preservation

Select the types of information that require long term digital preservation:

Function	Examples
Democratic Processes	Council & Committee Meetings
Management & Administration	Corporate Planning, Enquiries & Complaints
Client Services	Child Protection, Special Education, Adult Care, Housing
Statutory Services	Births, Deaths & Marriage, Coroners
Legal & Contracts	Tenders, Agreements, Litigation and Claims
Public Services	Health & Safety, Emergency Planning, Major Incidents
Planning Infrastructure & Transport	Planning, Development, Waste Management, Infrastructure Management
Human Resources	Personnel & Administration, Occupational Health & Safety, Benefits Administration
Financial Management	Accounts & Audit, Property History, Summary Assets Management
History & Heritage	Oral Histories, Maps, Census Results, Heritage Collections, Photographs

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Categories of Digital Content

Describe the categories of digital content important to your organization:

– Electronic text documents (correspondence, reports, plans, regulatory submissions, transcripts, essays, theses, press releases, books, journals, learning resources, meeting minutes)

– Digitized images of analogue manuscripts, paintings, archival documents, newspaper clippings, printed ephemera

– Photographs (including born-digital and digitized copies of prints and film negatives), historical and contemporary, created in research, business processes, or to document installations and other artworks

– Webpages, e-mails, social media, podcasts

– Moving images (including material produced for broadcast, advertisements, training, born-digital and digitised copies of film and VHS, some including subtitles) as well as interview and focus group audio files, public hearings, broker/dealer recordings

– Broadcasts (born-digital and digitized copies of analogue radio, cassette tapes, records and cylinders)

– Geospatial surveys, 3D documentation of objects, maps, architectural plans, as-built drawings

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Expected Benefits of Digital Preservation

Select the most appropriate benefits for your organization:

Generic Benefit	Examples
Financial savings	• Efficiency gains by moving from paper to digital storage • Defence from future legal challenge (Statute of Limitations)
Increased operational efficiency	• Reduction in effort in accessing & disseminating information • Elimination of expensive information retrieval & reconstitution
Ability to meet stakeholders need for access to information	• Promotion of collection/policies/records to wider audience • Supports online archive strategy for digital world
Meeting statutory & legal requirements	• Regulatory compliance for general and industry requirements • Conformance with Public Records and Freedom of Information Acts
Better decision making	• Access to digital records supports future policy formation • Analysis of archived R&D data with new emerging tools & techniques
Source of evidence and reliable data	• Evidential value of key records (e.g. contract awards, policy & planning decisions)
Potential for income generation and new service models	• Developing on-line revenue streams, digitisation services • Supporting R&D and new product development
Efficient management of archival & physical space	• Enabling custodians to appraise collections as received • Control access in managed digital environment
Enhanced reputation	• Systematic digital preservation supports organizational excellence • Recognition as innovative, at forefront of digital transformation

Expected Benefits: Alignment

Align the benefits to specific priorities and policies within your organization:

Benefit	Organizational Priorities
Financial savings	• Your Goal/Objective
Increased operational efficiency	• Your Goal/Metric
Ability to meet stakeholders need for access to information	• Your Goal/Metric
Meeting statutory & legal requirements	• Your Policy
Better decision making	• Your Policy
Source of evidence and reliable data	• Your Policy/Standards
Potential for income generation and new service models	• Your Goal/Objective
Efficient management of archival & physical space	• Your Target/Metric
Enhanced reputation	• Your Goal/Metric

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Technology Solution Description

Preservica conforms to the OAIS digital archiving standard (ISO 14721:2012) and provides all the tools required to establish and sustain a long-term living archive:

Core Digital Archiving Functions	Preservica Capability
Ingest	Upload digital content and metadata from a variety of content sources using a fully quality-assured process
Content Storage	Protects and stores digital objects in a safe, backed-up location, and continually check they are safe and accessible
Flexible Metadata and Security	Choose the way content is arranged, described, and protected
Access	Full search, browse, and download facilities via browser interface
Preservation Tools	Ensure content is protected against future obsolescence through active preservation

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Resources & Investment Plan

- **Resources Plan**
  - Staff availability for training
  - Assigned staff (e.g. Digital Archivist, Electronic Records Analyst, System Administrator)
  - Identified content ready to ingest
  - Identified backlog content at risk
  - Preservation policy and documented processes
  - Governance model
  - Third party support (as needed)
  - Defined roles and responsibilities

- **Investment Plan**
  - Annual license fees
  - Training costs
  - Advanced support (as needed)
  - Digital preservation training for staff
  - Staff costs for developing policy and procedures
  - Staff costs for stakeholder engagement as well as repository management and administration
  - Bandwidth capacity for transfer to the cloud (Infrastructure)
  - Workstation for staging & appraising content (optional)

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Success Management

Select the measurements of success from the examples below which are appropriate to your organization:

Success Criteria
An affordable, flexible and scalable digital preservation solution is implemented to enable persistent access to the organization's current digital resources and those that will be created in future years*
Content owners can easily deposit historically significant data for preservation, and users can access archived data effectively*
Users trust the organization's preserved digital assets as being authentic and reliable*
Organizational change is managed and staff are supported as they develop new skills in creating, managing and accessing digital resources*
Public access to digital records concerning issues of concern to them, and rights protection under Freedom of Information and Data Privacy provisions
Local communities, businesses, individuals, not-for-profits, schools and public bodies willingly transferring their digital records to (name of organization's archive) safe in the knowledge the resources will be preserved and made available for legal, business and historical enquiries

Source: Practical Digital Preservation, Adrian Brown

Appendices

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Digital Value at Risk (DVAR) Calculator

Step 1: Complete the Risk Matrix

- Enter the types of digital information that are particular to your organization
- Complete the Risk Factors and Consequences from drop down menus

Step 2: Generate a Profile

- Shows for each type of digital information the degree of risk of digital loss and impact
- Determine your level of acceptable vs. unacceptable risk
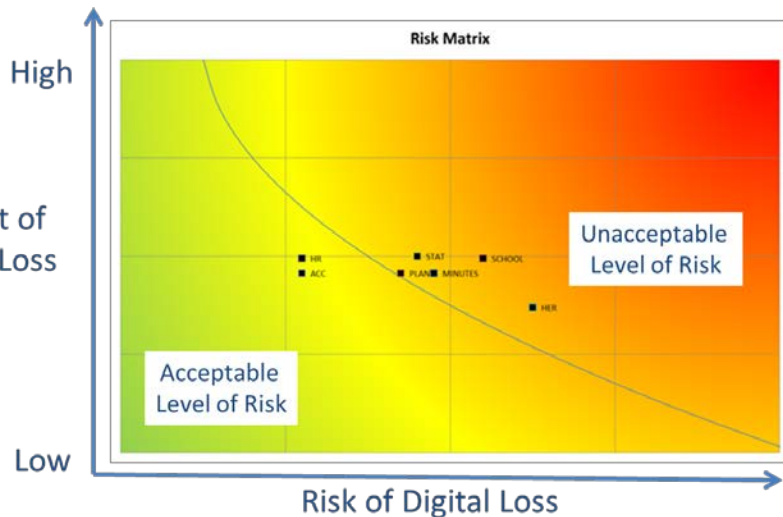
Risks Assessment

- Consider these factors as you assess risk to digital information:
    - Are record transfers planned or ad hoc?
    - Which file formats are in use across the organization for long-term and permanent records? (include some of the most complex)
    - What are the organization's current format preservation and migration strategies? Who is responsible for executing on the strategies?
    - Where is content stored? What back-up and business source systems are currently supported?
    - Which upstream content systems are scheduled for decommissioning that contain long-term content and metadata?

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Options Assessment – Do vs. Don't

The following statements can be used for positioning strategic options:

Options	Risks
Do nothing (i.e. business as usual)	• Loss of organization's digital assets • Financial penalties for failure to comply with legal/regulatory requirements • Costs arising from claims which lack legally-admissible evidence
Do the minimum (e.g. use existing internal data management and storage systems)	• No guarantee of active, digital preservation • Requirement to develop in-house expertise with uncertain cost/benefit, single point of failure
Postpone action (e.g. by a few years)	• Jeopardize the move towards digital-only business processes • Increase in digital-only records will make transition significantly more difficult and expensive
Do what is proposed (e.g. implement a digital preservation solution)	• (Refer to Expected Benefits)

Options Assessment – Do vs. Don't

Assessment Criteria	Open Source/Build Your Own	Preservica
Technology	• Digital storage systems are not robust, degrade or become unusable as technology evolves • Digital field changes rapidly, creating difficulties in maintaining technical infrastructures over time	• Specifically designed to the OAIS digital archiving standard (ISO 14721:2003) • Selected and proven by 150+ leading archives and libraries
People	• Requires specialized technical resources and systems skills (either in house or contracted) for long term	• No need for specialist system skills • Professional software as a service built on the latest research from worldwide experts in digital preservation
Processes	• Digital formats change and become inaccessible • Digital objects are harder to preserve than physical objects	• Information is protected within a highly-secure data centers • Active digital preservation manages the risks of format obsolescence
Change Management	• Absence of clear guidelines leads to ad hoc and erratic preservation decisions	• Full back-up program • Digital preservation specialists ensure that the collection is protected from the risks of digital decay
Investment	• Projects often based on short-term funding	• No need for up-front purchase of expensive storage and processing systems • Only pay for the storage you consume • Increase computer resources as and when required

Stakeholder Analysis - Roles

The following are typical stakeholders in sustainable digital preservation capabilities:

- Executive Leadership
- Council, Commission and Board Members
- Head of Section or Department
- Process Owner
- Agency Director
- CIO/IT Director
- Chief Marketing Officer/Communications
- Library Services
- Archives & Heritage Services
- Depositors & Donors
- Clients & Customers
- Friends & Community Groups
- Members of the Public
- Citizens
- Researchers

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Stakeholder – Interests & Strategic Business Needs

Stakeholder	Interests and Strategic Business Needs
Organizational Leadership & Directors	• Budget holder and decision makers • Responsibility for compliance and information disclosure • Duty of care and accountability • Meet expectations of shareholders, employees, customers, citizens and other stakeholders • Issue and enforce organizational policies • Ensure continuity of organizational culture and mission
Information Technology	• Information security and privacy • Infrastructure management and storage services • Back-up and business continuity/recovery
Heritage, Archives and Library Services	• Appraise, preserve and provide access to assets • Support research and use • Manage and sustain collections over time • Require training and tools
Users / Communities of Interest	• Assurance that assets and collections are available and accessible • Search and retrieval support • Authenticity of resources
Non-Users	• Opportunity to become aware of collections • Be represented in the collections in a non-discriminatory way that protects privacy

SAMPLE Digital Preservation Training Plan

Introduction & Overview
- Description of main functions and overview of system dashboard

Pre-Ingest
- SIP Creator tool
- Structure of a SIP
- Explanation of XIP
- Adding custom metadata
- How to create and submit a SIP
- Exercise

Ingest
- Description of workflow management dashboard
- Description of available workflows
- Creating instances of workflows
- Executing workflows
- Exercise

Access
- Searching and browsing
- Viewing and editing metadata
- Amend hiearchical structure
- Invoke data management workflows

Preservation
- Develop preservation plan
- Execute preservation actions
- Audit and report

Data Management
- Description of available workflows

Administration
- Overview of administration functions
- Description of schema and transformation management framework
- Security model – roles and access permissions

Storage
- Overview of integrity checking workflows

User Management
- Creating/removing users
- Modifying user roles and access rights

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