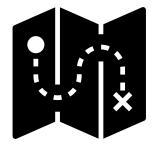
# Digital Preservation at York University Libraries

Nick Ruest November 16, 2022

# Introduction & Overview

- 2012-2017
- 2017-2021
- 2021-Present
- History and Background
- What didn't work
- What changed
- Where we're at now
- Questions



2012-2017

# Early days.

2012-2017

- Systematic Review
  - Inventory
  - What we have available
  - What we need
- TDR reviews
  - Scholars Portal
  - University of North Texas
  - University of Florida
- Write documentation
- Digital Preservation and Islandora

### Systematic Assessment:

# How York University Libraries provide access to digitized and born-digital content

```
Executive Summary
Environmental scan update
   Digital Initiatives
   Clara Thomas Archives and Special Collections
   Data
   Maps
   Library Accessibility Services
   Resource Sharing
System Analysis
Storage Analysis
Gaps Analysis
   DSpace
   Digital Initiatives Digitization Workflow
   Omeka exhibits development using digitized content
   Open Journal Systems
   Asset Management & Digital Preservation
Recommendations
   Departmental
   Overall Recommendations
Appendix 1: Platform analysis
   Access Control
   Adoption
   Authentication
   Database Support
   Developer Ecosystem
   Globalization
   Installation
   Interoperability
   M aturity
   Metadata Standards
```

```
Migration
   Object Format Support
   Performance
   Platform Support
   Scalability
    Search
   Search Engine Optimization
   Storage Abstraction
   Support Model
   Sustainability
   System Requirements
   Upgrade
   Versioning
Appendix 2: Environmental Scan (April 14, 2011)
Appendix 3: Server Inventory
Appendix 4: SMIL Media Collections for Preservation
Appendix 5: York University Airphoto Project - Yorkspace & Storage Space
Requirements
Appendix 6: SSHRC Report
Appendix 7: Archives & Special Collections Future Projects - Storage Space
Requirements
Appendix 8: Inventory
```

# Go big!

ISO 16363

#### Scholars Portal TDR Documentation

Search

Audit Criteria

Access Policy

Acronyms and Glossary

Available by Request

Backup Plan

Collections Policy

Critical Processes and OAIS Mandatory Responsibilities

Definition of AIP

Definition of DIP

Definition of SIP

Description of System Architecture

Designated Community Definition

Disaster Recovery Plan

Environmental Monitoring of Preservation Formats

Fixity Check Procedures

License Management Workflow

Metadata Specifications

Mission Statement

OCUL Constitution

Organizational Chart

Preservation Action Plan

Preservation Implementation Plan

Preservation Strategic Plan

Provider Agreements and Licenses

**Quality Control Specifications** 

Registry of File Formats

Relevant Legislation

Review Cycle for Documentation

Policy

Rights Policy

Risk Analysis and Management

Strategies

Roles and Responsibilities

Security Plan

Succession Plan

URI and File Naming Policy

Workflow Charts

### Scholars Portal Trustworthy Digital Repository Documentation

Welcome to the documentation library for the Scholars Portal Trustworthy Digital Repository (TDR)!

We make this documentation available as part of our commitment to the long-term stewardship of the millions of commercial and open access scholarly publications under our care. Please visit the TDR website for a quick introduction to the TDR and its scope and operations.

The documentation is divided into two key sections:

- · Audit Criteria: expand the menu option at the top left to see individual responses to the each of the requirements in Audit and Certification of Trustworthy Digital Repositories CCSDS 652.0-M-1, 2011
- · Policy, procedure and planning documents and diagrams that document our operations are listed in alphabetical order on the left-side menu

Please note that the previous documentation site hosted on SpotDocs is no longer being maintained but will be retained for archival purposes.

Questions? Reach out to us via the TDR website contact form.

Scholars Portal Trustworthy Digital Repository Documentation

About This Presentation

Overview

HOME COLLECTIONS PARTNERS TITLES LOCATIONS TYPES DATES

ABOUT ▼ TOUR CONTACT US

University Libraries / UNT Digital Library / UNT Libraries / This Presentation Piloting a Peer-Review Process for Trusted Digital Repositories





Showing 1-4 of 22 slides in this presentation.



Presentation for the 2015 Texas Conference on Digital Libraries (TCDL). This presentation discusses a collaborative peer-review process for the Trusted Repository Audit Checklist (TRAC).

#### **Physical Description**

22 p.

#### **Creation Information**

Waugh, Laura April 28, 2015.

#### Context

This **presentation** is part of the collection entitled: UNT Scholarly Works and was provided by the UNT Libraries to the UNT Digital Library, a digital repository hosted by the UNT Libraries. It has been viewed 167 times, with 7 in the last month. More information about this presentation can be viewed below.





People and organizations associated with either the creation of this presentation or its content.

#### Author

• Waugh, Laura University of North Texas

#### Organizer of meeting

Texas Digital Library

#### **Provided By**

#### **UNT Libraries**

The UNT Libraries serve the university and community by providing access to physical and online collections, fostering information literacy, supporting academic research, and much, much

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University Libraries / Digital-libraries / Trusted Digital Repository...

PAGE CONTENTS

3 MIN READ.

## **Trusted Digital Repository**



During the 2015 year, the Digital Libraries Division of the UNT Libraries completed a self-audit using the criteria of the Trusted Repositories Audit & Certification: Criteria and Checklist (TRAC). The goal of this audit was to formalize processes and create documentation necessary for the operation of a trusted digital library.

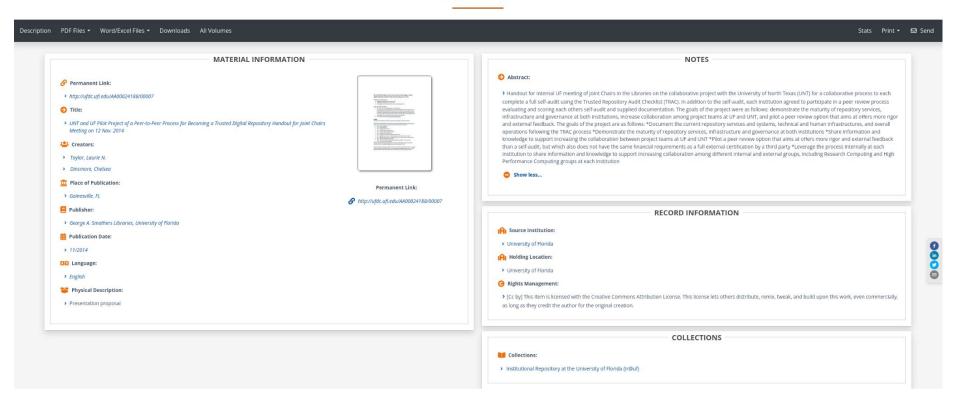
The team involved with this

The team involved with this audit included the following participants:

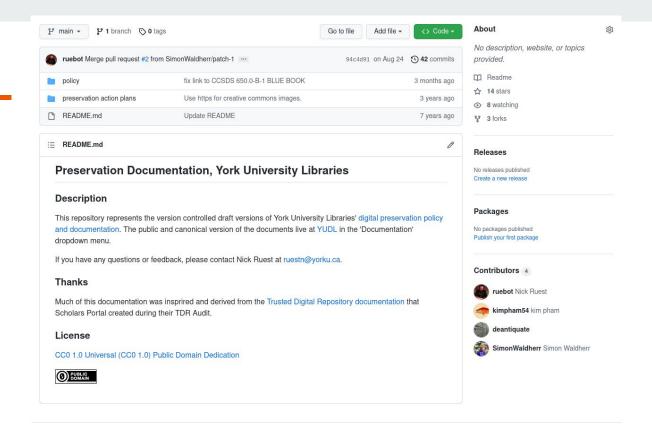
- Mark Phillips, Assistant Dean for Digital Libraries
- Hannah Tarver,
   Department Head,
   Digital Projects Unit
- Ana Krahmer, Head, Digital Newspaper Unit
- Daniel Alemneh, Head, Digital Curation Unit
- Laura Waugh, Repository Librarian for Scholarly Works

In addition, numerous individuals throughout the UNT Libraries contributed to the documentation effort.

# UNT AND UF PILOT PROJECT OF A PEER-TO-PEER PROCESS FOR BECOMING A TRUSTED DIGITAL REPOSITORY HANDOUT FOR JOINT CHAIRS MEETING ON 12 NOV. 2014



# Fake it until you make it?



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# Digital Preservation Tools and Islandora

Jan 15, 2014 · 3 min read









Incorporating a suite of digital preservation tools into various Islandora workflows has been a long-term goal of mine and a few other members in the community, and I'm really happy to see that it is now becoming more and more of a priority in the community.

A couple years ago, I cut my teeth on contributing to Islandora by creating a FITS plugin for the Drupal 6 version of Islandora. Later this tool was expanded to a stand alone module with restructuring of the Drupal 7 code base of Islandora. The Drupal 7 version of Islandora, along with Tuque, has really opened up the door for community contributions over the last year or so. Below is a list and description of Islandora modules with a particular focus to the preservation side of the repository platform.

## Islandora Checksum

Islandora Checksum is a module that I developed with Adam Vessey (with special thanks to help from Jonathan Green and Jordan Dukart who helped me grok Tuque), that allows repository managers to enable the creation of a checksums for all datastreams on objects. If enabled, the repository administrator can choose from default Fedora Commons checksum algorithms: MD5, SHA-1, SHA-256, SHA-384, SHA-512.

Search

Q

# **Policies**

- Backup Plan
- Content Types
- Collection Policy
- Critical Processes and OAIS
   Mandatory Responsibilities
- · Definition of AIP
- Definition of DIP
- · Definition of SIP
- Designated Community
   Definition
- Digital Preservation
   Implementation Plan
- Monitoring of Preservation
   Formats
- Fixity procedures
- · Metadata Specificiations
- · Registry of file formats
- Review Cycle for Documentation
- · Transformation Rights Policy
- URI Policy

# Action Plans

- Audio
- Image
- Video

# **Digital Preservation Policy**

# Critical Processes and OAIS Mandatory Responsibilities

Submitted by nruest on Thu, 09/18/2014 - 08:33

# Critical Processes and OAIS Mandatory Responsibilities

- 1. Introduction
  - This document traces critical processes employed by York University Libraries (YUL) to meet the "mandatory responsibilities" of a
    digital repository as described in OAIS. This document identifies which processes are necessary for the repository to fulfill its
    mandatory responsibilities.
- 2. OAIS 3.1: "Negotiate for and accept appropriate information from information Producers."
  - YUL has a clearly defined process for negotiating with producers and ensuring that it acquires appropriate information. See the Rights Policy for more information.
- 3. OAIS 3.1: "Obtain sufficient control of the information provided to the level needed to ensure Long-Term Preservation."
  - YUL obtains rights from individual producers that give the repository control over all of the information deposited by the producer. The nature and scope of these rights varies by submitter. In cases where the repository takes responsibility for the preservation of information, the rights include provisions for YUL to receive a local copy of the information and host it in perpetuity. In some cases, the repository obtains the right to modify information in order to ensure long-term preservation and accessibility. See the Rights Policy for more information.
- 4. OAIS 3.1: "Determine, either by itself or in conjunction with other parties, which communities should become the Designated Community and, therefore, should be able to understand the information provided."
  - YUL developed a Designated Community Definition that describes the repository's primary, and secondary user communities.
- 5. OAIS 3.1: "Ensure that the information to be preserved is Independently Understandable to the Designated Community. In other words, the community should be able to understand the information without needing the assistance of the experts who produced the information."
  - o. YUL ensure that information is Independently Understandable by using file formats that are well understood and widely accepted by

Batch ingest a million+ objects, and a couple sabbatical and research leaves later...

2017-2021

# The wilderness

2017-2021



Does anybody here even care about this work? Should we stick a fork it?

# What went wrong?

- Institutional Support
- Institutional Buy-in
- Institutional Structure
- Staffing
- Resourcing
- Burnout
- Prescriptive/ridgid
- TDR Certification
- Data Seal of Approval
- Naiveté

# How did we get out of the wilderness?

1. The never ending migration.

# 2. Meetings. Lots of meetings.

# 2021-Present

# What went right?

- Islandora Migration Leadership Group
- Digital Preservation Policy Working Group
- Documentation review
- Documentation updates
- Creation of new documentation
- RASCI Exercise
- Publishing updated documentation
- Digital Preservation Leadership Group
- Digital Preservation
   Working Group

# Digital Preservation Policy Working Group

- Terms of Reference
  - Purpose
  - Responsibilities
  - Timeline
    - Not ongoing!
  - Outcomes & Deliverables
  - Cross-divisional membership
- Scope
  - What we're gonna do!
- Review
  - What we're gonna review!
- Update
  - o What we're gonna update
- RASCI
  - Side quest!
- New documentation
  - Definition of done!
- Save for later
  - Preservation Action Plans

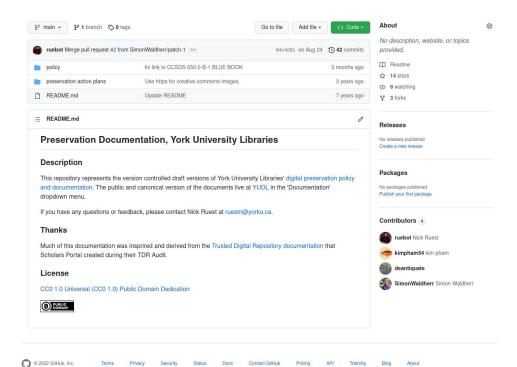
What does the digital preservation program cover at York?

# What platforms does the documentation cover?

- Legacy
  - York University Digital Library
    - (Islandora)
  - YorkSpace
    - (DSpace)

- Current
  - York University Digital Library
  - YorkSpace
  - York Digital Journals
  - Archivematica
  - Web archives

# Rewriting policy and documentation.



#### Documents > Policies and Documentation > Public audience

	Name ∨	Modified $\vee$	Modified By $\vee$
	01 - YUL Digital Preservation Policy.docx	March 26	Sarah J. Coysh
	02 - Designated Community.docx	February 28	Nick Ruest
	03 - Collection Policy.docx	March 7	Nick Ruest
	04 - Implementation Plan.docx	March 26	Sarah J. Coysh
	05 - Transformation Rights Policy.docx	March 26	Sarah J. Coysh
	06 - Monitoring of Preservation Formats.do	March 21	Nick Ruest
W	07 - Metadata Specifications.docx	March 21	Nick Ruest
Wil	08 - Review Cycle for Documentation Policy	March 28	Nick Ruest
	09 - Glossary of Terms.docx	July 11	Nick Ruest

#### Documents > Policies and Documentation > YUL audience

	Name ∨	Modified $\vee$	Modified By $\vee$
	TO REVIST	August 15	Nick Ruest
	00 - Human Resource Plan.docx	August 29	Nick Ruest
	01 - Critical Processes and OAIS Mandatory	August 3	Nick Ruest
<b>W</b>	02 - Submission Information Packages.docx	August 15	Nick Ruest
	03 - Archival Information Packages.docx	August 15	Nick Ruest
	04 - Dissemination Information Packages.d	August 29	Nick Ruest
•	05 - Backup Plan.docx	August 15	Nick Ruest
	06 - Fixity Procedures.docx	August 15	Nick Ruest
	07 - File Format Identification.docx	August 15	Nick Ruest

# **Public vs Internal Audience**

# **Digital Preservation Policy**

- · Public audience
  - Digital Preservation
  - Collection Policy
  - Designated Community
  - Glossary of Terms
  - Implementation Plan
  - Metadata Specifications
  - Monitoring of Preservation Formats
  - Review Cycle for Documentation Policy
  - o Transformation rights policy
- · YUL audience
  - · Human Resource Plan
  - o Critical Processes and OAIS Mandatory Responsibilities
  - Submission Information Packages
  - o Archival Information Packages
  - o Dissemination Information Packages
  - Backup Plan
  - Fixity Procedures
  - o File Format Identification

# **Human Resource Plan -> RASCI**

# **Responsibility Assignment Matrix**

- Responsible: Those who do the work to complete the task. There is at least one role with a participation type of Responsible, although others can be delegated to assist in the work required.
- Accountable: The one ultimately answerable for the correct and thorough completion of the deliverable or task, the one who ensures the prerequisites of the task are met and who delegates the work to those responsible. In other words, an Accountable must sign off (approve) work that responsible provides. There must be only one Accountable specified for each task or deliverable.

- **Supports**: People that play a Supporting role in implementation; resources for Responsible.
- Consulted: Those whose opinions are sought, typically subject-matter experts; and with whom there is two-way communication.
- Informed: Those who are kept up-to-date on progress, often only on completion of the task or deliverable, and with whom there is just one-way communication.

# **Catharsis**

# **Human Resource Plan**

## Governance

- Mission and Vision
- Funding
- Decision Making
- Policy
- Risk Management
- Resource Planning

## Administration

- Strategy and Assessment
- Statistics

## **Systems**

- Backup
- Security
- Hardware configuration/Maintenance
- Software configuration/Maintenance
- Logging
- Disaster Recovery

# **Human Resource Plan**

## **Collections and Donors**

- Collection Development
- Donor/Depositor relations
- Deposit Agreements

# **Object Submission Preparation**

- Digitization
- Object Metadata Specifications
- Descriptive Metadata Creation
- Quality Control (Objects)
- Quality Control (Metadata)
- Copyright Management
- Property rights/Restrictions

# **Human Resource Plan**

## **Object Ingest and Monitoring**

- Permissions
- Workflow Development
- Ingest
- Object Identification/Characterization
- Object Integrity
- Records of actions taken on object
- Deaccession/purging

## **Object Dissemination**

- Access Control
- User Support

## Onboarding/Training

- Policies
- Application support
- Application use
- Departmental roles
- Training documentation

# **DPPWG ToR timeline**

#### York University Libraries

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CONTACT

Home » About Us » Library Policies

# **Library Policies**

### General

- · Rules of the House
- · Copyright at York
- · York University Libraries Food and Drink Policy
- · York University Libraries Exhibit Guidelines
- · Code of Student Rights & Responsibilities

## Borrowing

- Lending Code
- · Direct Borrowing from other university libraries
- External Borrowers

## **Library Collections**

- · Collection Development Policy
- Collection Areas and Liaison Librarians
- · Donations to the Library
- · Acceptable Use Guidelines for Electronic Resources
- · Digital Preservation Policy

## **Technology**

- · Senate Policy on Computing and Information Technology Facilities
- Access to Library Computers
- Library Guest Accounts

### Other

Branch Specific Policies



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Careers





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### **Digital Preservation Policy**

#### Introduction

Digital information relies on a combination of data, software and hardware that together allow users access to a complete information object. Digital preservation planning recognizes the vulnerability of these digital information objects and the need for proactive stewardship of these materials to mitigate loss of access to content due to software obsolescence and loss or alteration of digital objects due to hardware or transfer failure. The purpose of this digital preservation policy is to outline the strategy used by York University Libraries (YUL) to ensure the continued preservation of and access to its digital holdings for its Designated Community

#### Mandate

The management of YUL digital holdings builds on the expertise that YUL brings to collections development, metadata creation and reference services, YUL librarians, archivists and IT specialists together are responsible for the curation, management and preservation of the library's digital assets.

- . "The mission of York University is the pursuit, preservation, and dissemination of knowledge," (York University Mission and Vision)
- "York's research librarians and archivists are active stewards of the University's research assets...This work includes curating and digitizing existing archival holdings to better raise the visibility and profile of these materials as well as supporting exhibits, communications and digitization with a variety of cultural community partners." (p. 11, York University Strategic Research Plan: 2018-2023)
- "YUL increases research impact and knowledge application, builds and curates rich and diverse collections, advocates open research practices, and supports our users in the creation and preservation of scholarly and creative works." (p. 2, York University Libraries 2021-2026 Strategic Plan)
- . "Record and preserve cultural heritage: Deliver projects to record and preserve intangible cultural heritage such as local folklore, traditions, language, and knowledge. This can include the heritage of displaced communities." UN Sustainable Development Goal, Indicator 11.2.6

### Principles

The primary purpose of this digital preservation policy and other related documentation is to facilitate the long-term preservation of digital information resources selected and managed by YUL. This work is informed by YUL's commitment to the following underlying principles:

- - Use the Open Archival Information System (OAIS) reference model standard (ISO 14721:2003)
- Comply with ISO Standard 16363 for Trusted Digital Repositories.
- Robust metadata
  - Capture, create and maintain high-quality metadata (descriptive, technical, preservation).
- · Authenticity
- · Adopt procedures to document provenance, chain of custody, authenticity, integrity of content and fixity.
- Identify intellectual and privacy rights and control access accordingly.
- Sustained technical canacity
  - Invest in the procurement and maintenance of relevant software, hardware and storage over time with secure backup, recovery, and quality
- Transparency
  - Document, regularly update and make available digital preservation policies, procedures and practices,

### Scope

YUL is responsible for preserving the intellectual content of digital materials acquired and/or created by the library, including archival records (digitized and born digital), materials deposited in YorkSpace and York University Digital Library, multimedia objects associated with York University Digital Journals, and web archives.

## Roles and responsibilities

Digital preservation at YUL requires collaboration and partnership between library workers, external vendors and content creators, Currently, YUL departments with digital preservation responsibilities include Digital Scholarship Infrastructure (DSI), Archives and Special Collections (ASC), and Library Digital Systems & Initiatives (LDSI).

#### Financial commitment

The provisions of this policy and related digital preservation policies are predicated on an ongoing financial commitment by York University Libraries to provide sustainable and scalable resources to support current and future digital preservation requirements. Digital preservation cannot be done without investment in human resources (people to do the work) and technical infrastructure (hardware, software, storage, and backup).

## Skills and training

The ever-changing nature of digital technologies requires that YUL workers responsible for the ongoing preservation of digital objects have access to adequate support and training to maintain and develop their knowledge and professional competencies. Due to the organizational structure of YUL, some staff working in this area have multiple responsibilities outside of digital preservation. Therefore, providing skill development opportunities and training for all who work with digital records at YUL is a priority when allocating resources to digital preservation maintenance activities and other related initiatives.

#### Review and revision

YUL commits to the review and revision of its preservation practices and the corresponding documentation, as outlined in the Review Cycle for Documentation Policy.

#### Related documents

- · Collection policy
- · Designated community
- · Glossary of terms
- Implementation plan
- · Metadata specifications
- · Monitoring of preservation formats
- · Review cycle for documentation policy
- · Transformation rights policy

Reviewed: February 28, 2022

# Life after DPPWG

"...digital infrastructure is not robust like a brick. It is not inherently hard. It is robust like a tree: it lasts because it grows, adapts, and repairs. It may also die. We have to keep it alive. It demands care."

# Digital Preservation Leadership Group

"... it's primary purpose is to resource and prioritize projects to ensure sustainability of YUL's Digital Preservation Program through collaboration in the preparation of work plans, budget submissions, staffing planning, and annual report."

# Digital Preservation Working Group

"... it's primary purpose is to bring together individuals from the division of Digital Engagement and Strategy and the division of Research and Open Scholarship who are responsible for aspects of YUL's Digital Preservation Program to collaborate on planning, issues, workflows, projects, and policy."

# Big thank you to my colleagues!

- Katrina Cohen-Palacios
- Sarah Coysh
- Jennifer Grant
- Genny Jon
- Andrea Kosavic

- Michael Moir
- Tomasz Mrozewski
- Tuan Nguyen
- Harriet South

# Conclusion

Identify what you can do.

Write down what you can do.

Do what you say you can do.

Don't over do it.

Figure out where you want to go next.

Figure out how to get there.

Don't be afraid to stop and figure out a new way if things change.

# **Questions!**