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Preservation Policies of the Purdue University Research Repository (PURR)

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PRESERVATION POLICIES OF THE PURDUE UNIVERSITY RESEARCH REPOSITORY (PURR)

[PANEL] TRANSFORMING THE DATA LANDSCAPE: CONNECTING DATA, POLICIES, AND COMMUNITIES

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Data Specialist, Assistant Professor of Library Science, Purdue University

November 3, 2014
A SERVICE MODEL OF COLLABORATION

Purdue e-Pubs and the Purdue University Research Repository (PURR)
TRADITIONAL SCHOLARLY PUBLICATIONS

PURDUE UNIVERSITY PRESS/PURDUE E-PUBS/JTRP

a) PI drafts proposal

b) Data Management Plan Created
c) PI submits proposal to funding agency
d) Proposal accepted by funding agency
e) PI submits draft report

f) SAC review of report
g) PI revises draft report

h) PA/PI & SAC confer

i) Final report production process

PI = principal investigator
SAC = study advisory committee
PA = project administrator

q) Post Production:
- Data/Tech Report Link
- Tech Summary
- DOIs
- Persistent URL
- Indexing
- Archiving
- Print on Demand

r) Measurements of Impact:
- Altmetrics
- Citations
- Downloads
- Access
a) PI drafts proposal

b) Data Management Plan Created

j) PI creates project in PURR

k) Project group collaborates in PURR

l) PI submits data set

m) SSL verifies data set

n) Data set published / archived with DOI

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   - Citations
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PI = principal investigator
PURR = Purdue University Research Repository
SSL = Subject Specialist Liaison
COHESIVE PUBLICATION WORKFLOW

1. DMP
2. DOI
3. Metadata

Pl = principal investigator
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1) PI drafts proposal
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11) Project group collaborates in PURR
12) PI submits data set
13) SSL verifies data set
14) Data set published / archived with DOI
15) Data DOI submitted to publishing
16) PURR and e-Pubs links established (metadata)

q) Post Production:
   - Data/Tech Report Link
   - Tech Summary
   - DOIs
   - Persistent URL
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   - Print on Demand

r) Measurements of impact:
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   - Citations
   - Downloads
   - Access
JTRP LINKED PUBLICATIONS

TECHNICAL REPORT


DATA

Effects of Realistic Heat Straightening Repair on the Properties and Serviceability of Damaged Steel Beam Bridges

By Amit H. Varma, Purdue University
Youngmoo Sohn, Purdue University

Recommended Citation

DOI
10.5703/1288284315184

Comments
Supplementary videos for SPR-3105:
PURR Digital Preservation Policy

Purdue University Research Repository (PURR) Digital Preservation Policy

Purpose
The Purdue University Research Repository (PURR) serves as Purdue’s institutional data repository through providing resources and services to promote the management, dissemination and preservation of research data generated by researchers affiliated with Purdue or in association with Purdue researchers. The Purdue University Libraries is responsible for preserving content in PURR. The Libraries is committed to preserving and maintaining all PURR content for a period of ten years after it is published in PURR. Long-term preservation of PURR content beyond the ten year retention period is subject to the Libraries' selection criteria for long-term retention, pending budget approval for staffing and related resources needed to accomplish this goal.

The following PURR Digital Preservation Policy describes how Purdue University will support sustainable access to digital data sets and related content deposited into PURR. Detailed strategies for preservation activities will be developed in conjunction with this policy. This policy is subject to change as capabilities, standards, best practices and available technologies impact the University’s ability to preserve this content. The intended audience for this policy includes faculty, administrators, and students of Purdue University, researchers external to Purdue who are collaborating with Purdue personnel and who want to make use of PURR’s services, funders, and users.

The objectives of PURR are:

- to collect, publish and preserve the digital data sets and associated documentation generated by researchers affiliated with Purdue or associated with Purdue’s research projects.
- to enable researchers at Purdue to satisfy the requirements of funding agencies in managing, sharing and preserving research data.
- to provide the means for researchers, policy makers, and others to discover and access data sets generated through research done at or in conjunction with Purdue for the long term.
- to provide a sustainable preservation environment where deposited research data are available to support the historical record of research, and accessible for use for contemporary scholarship.

https://purr.purdue.edu/legal/digitalpreservation
Preservation Strategies

1. Preservation Strategies

The following preservation acts adhere to the PURR Preservation Strategic Plan’s goal of preserving access to digital content so that it remains readable, meaningful, and understandable. Each object that enters the repository will undergo some type of preservation strategy, defined here:

**Bit-level Preservation:** This is the most basic level of preservation in PURR. Datasets designated for bit-level preservation will undergo file backup, fixity checking, and recognition of file format preservation activities. Datasets will be maintained in a state that provides potential for long-term care and accessibility. Datasets will undergo Bit-level Preservation if the file format is unrecognized or unsustainable, or if Full or Limited Preservation is not possible at the time of ingest. When possible, representation information will be included within object metadata.

**Limited Preservation:** Datasets at this level will receive Bit-level Preservation activities with representation information, and migration actions when appropriate during the life cycle. Migration will be made with the priority of preserving content and when possible, the format and style. Functionality of the dataset may not be preserved at this level, due to proprietary formats which may fall into this level.

**Full Preservation:** This is the highest preservation level in PURR. Datasets at this level receive Bit-level Preservation activities, with representation information, as well as transformation/normalization and migration actions when appropriate during the life cycle. Full Preservation includes continual monitoring by PURR managers for obsolescence and changes in file formats and/or technology.

PURR reserves the right not to accept or preserve objects found to be corrupted or dangerous to the repository.

As stated in the **PURR Digital Preservation Policy**, Purdue Libraries is committed to preserving and maintaining all PURR content for a period of ten years after it is published in PURR. Long-term preservation of PURR content beyond the ten year retention period is subject to the Libraries’ selection criteria for long-term retention, pending budget approval for staffing and related resources needed to accomplish this goal.

https://purr.purdue.edu/legal/preservation-strategies
## File Format Recommendations

**Purdue University Research Repository (PURR)**

### Table: File Format Recommendations

<table>
<thead>
<tr>
<th>File Type</th>
<th>Sustainable</th>
<th>Supported</th>
<th>Unsustainable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plain Text</strong></td>
<td>Plain Text, Comma-separated file, Tab-delimited file</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Structural markup</strong></td>
<td>SGML w/DTD, XML w/DTD</td>
<td></td>
<td>SGML w/o DTD, XML w/o DTD</td>
</tr>
<tr>
<td><strong>Spreadsheets</strong></td>
<td>OpenDocument Spreadsheet, Comma-separated file, Tab-delimited file, PDF/A</td>
<td>Microsoft Excel, Microsoft Excel Open XML</td>
<td></td>
</tr>
<tr>
<td><strong>Databases</strong></td>
<td>Delimited Flat File w/DL</td>
<td>Microsoft Access, dBase Format</td>
<td>Audio CD, DVD-Audio, RealAudio, Shorten, RIFF-RMID, Extended MIDI, Module Music Formats</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>WAVE</td>
<td>AIFF (uncompressed), Standard MIDI, Windows Media Audio, MPEG, MP2AAC</td>
<td></td>
</tr>
<tr>
<td><strong>Video</strong></td>
<td>Archival format not currently established</td>
<td>AVI, MPEG-1, MPEG-2, MPEG-4, Quicktime</td>
<td>Windows Media Video</td>
</tr>
<tr>
<td><strong>Images</strong></td>
<td>TIFF, JPG 2000</td>
<td>JPEG, PNG, PDF/A, GIF</td>
<td>RAW, Adobe Photoshop, Kodak PhotoCD, Encapsulated PostScript, FlashPix, PDF</td>
</tr>
</tbody>
</table>

[https://purr.purdue.edu/legal/file-format-recommendations](https://purr.purdue.edu/legal/file-format-recommendations)
## Preservation Support Policy

**Purdue University Research Repository**

### Preservation Strategy

<table>
<thead>
<tr>
<th>Preservation Strategy</th>
<th>Preservation Action</th>
<th>Sustainable</th>
<th>Supported</th>
<th>Unsustainable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bit-level Preservation</td>
<td>DOI identifier for object</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Preservation metadata</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Secure storage and backup</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Regular virus checks</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Regular fixity checks</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td></td>
<td>Bitstream maintenance</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Transformation/Normalization</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Limited Preservation</td>
<td>Strategically monitor format for changes</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Migrate to more preservable format</td>
<td>NA</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Full Preservation</td>
<td>Migrate to successor format</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[https://purr.purdue.edu/legal/preservation-support-policy](https://purr.purdue.edu/legal/preservation-support-policy)
Thank You

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@l_zilinski