

DOIs for Research Data

Digital and Data Services Workshop

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University of Idaho Library

Beth Hendrix, Reference/Instruction Librarian

What is a DOI?

- Unique alphanumeric string of characters used to persistently identify a digital object
 - Available for individual items -- and/or datasets
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The DOI System

- International DOI Foundation governs DOI Registration Agencies worldwide
 - DataCite provides DOIs for research data
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How does a DOI work?

- Provides persistent link to digital item using a resolver service
 - Redirects browser to landing page that describes the digital item
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What do the characters mean?

EXAMPLE:

[doi:10.7923/G42Z13FR](https://doi.org/10.7923/G42Z13FR)

- Consists of prefix & suffix separated by forward slash
 - Prefix begins with “10,” followed by code for institution or publisher
 - Suffix (Item ID) is assigned by publisher to identify the work
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Why do I need a DOI for my dataset?

- Improve discoverability
 - Increase citations
 - Track impact
 - Funding requirements
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DOIs and collaborative research

CONSIDER:

- Who is the primary researcher? lead institution?
 - Who provides access to the material?
 - Who will maintain long-term access?
 - Which institution has capacity to issue a DOI?
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Can the library issue a DOI?

- The UI library provides data management expertise and repository services through Northwest Knowledge Network
 - If dataset is hosted by NKN, they can issue DOI through EZID service
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Organizational structure of the DOI system



International DOI Foundation (IDF)

IDF Registration Agencies

A grid of logos for various IDF Registration Agencies. The agencies include: airiti DOI (Airiti, Inc.), Crossref (Crossref), Onki (China National Knowledge Infrastructure (CNKI)), DataCite (DataCite), EIDR (Entertainment Identifier Registry), 中文DOI (JSTIC: The Institute of Scientific and Technical Information of China), Japan Link Center (JaLC (Japan Link Center)), KISTI (Korea Institute of Science and Technology Information (KISTI)), mEDRA (Multilingual European DOI Registration Agency), and Publications Office (OP (Publications Office of the European Union)). The DataCite logo is circled in red.

DataCite Members

A grid of logos for various DataCite Members. The members include: ands (ands), 华大基因 (BIBSYS), CDL (CDL), CRUI (CRUI), ZBW (ZBW), DICI (DICI), DTU (DTU), ETH zürich (ETH zürich), figshare (figshare), TIB (TIB), GWDG (GWDG), HARVARD (HARVARD), CNIS (CNIS), IEEEE (IEEEE), ICPSR (ICPSR), GESIS (GESIS), KISTI (KISTI), MIA (MIA), NRC-CARC (NRC-CARC), OSTI.GOV (OSTI.GOV), SUB (SUB), POLYTECH (POLYTECH), PURDUE (PURDUE), ResearchGate (ResearchGate), SAEON (SAEON), CSIC (CSIC), SNO (SNO), and TIND (TIND). The CDL logo is circled in red.

Registration Service

The logo for EZID, featuring a stylized orange and purple flower-like symbol next to the text 'EZID'. Below the logo is the text 'Long-term identifiers made easy' and 'A SERVICE OF THE UNIVERSITY OF CALIFORNIA CURATION CENTER — UC3'.

Repository Host

The logo for NNN (Northwest Knowledge Network) at the University of Idaho, featuring a gear icon and the text 'NNN Northwest Knowledge Network University of Idaho'.

What are the requirements for a DOI?

GUIDELINES:

- Public availability
 - Managed for long term persistent access
 - Quality metadata
 - Up-to-date landing page
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What do I need to provide?

- Location URL
 - Creator(s)
 - Title
 - Publisher
 - Publication year
 - Resource type
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Lifecycle of a DOI

1. Researcher (you) deposits dataset in repository (NKN)
 2. Repository host (NKN) registers metadata and landing page with DOI registration service (CDL's EZ ID)
 3. DOI registration service (EZ ID) registers the info with resolver service (DataCite)
 4. Repository host (NKN) updates the location URL as needed
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Dataset Information

Total residue (suspended and dissolved solids) load calculations for two inflow locations and the outflow location at Fernan Lake, Idaho (April 2014-April 2015)

Abstract:

The following description is the calculation of daily total residue loads using the non-parametric smearing method, see references below. 15 minute interval stages were converted to discharge values using the rating curve equation developed by T. LaCroix. (1) Daily loads were calculated by multiplying measured total residue (TR) concentrations by the corresponding discharge values (both occurring [\[More\]](#))

Online Resource(s):

<https://www.northwestknowledge.net/data/download.php?uuid=0dadab3b-dc03-4294-a383-25e6e052e95a>

[View Full Metadata Record](#)

EXAMPLE

Depositing your dataset with NKN

rthwestknowledge.net/metadata-editor#/iso

My Records ▾

New Metadata Record:

SETUP > BASIC INFO > DETAILED INFO > TEMPORAL > SPATIAL > CONTACTS > **UPLOAD** > RESOURCES > DISCLAIMER > REVIEW

Set-up Metadata Template

I would like to upload a collection of:

- data file (document, table, GIS file, georeferenced photo)
- Non-data file (poster, report, model, tool, script, code, or visualization)

My file has:

- A spatial location (i.e., data collected at your study site)
- A reference system (i.e., a coordinate system and datum: used in geographic or GIS data)

This file was produced with support from:

- The Idaho EPSCOR-MILES project
- Northwest Knowledge Network

[Back](#) [Save and Continue](#)

Use of the NKN metadata editor requires a login and implies acceptance of our [terms of service](#).

Questions?

International DOI Foundation (Governing Body) www.doi.org

DataCite (IDF Registration Agency) www.datacite.org

EZ ID (Registration Service) <http://ezid.cdlib.org/>

NKN (Repository Host) www.NorthwestKnowledge.net

- UI Library/DOI Service
<http://www.lib.uidaho.edu/services/data/dois.html>
- Data Citation
www2.usgs.gov/datamanagement/describe/citation.php
- Implementing DOIs for Research
<http://www.dlib.org/dlib/may12/simons/05simons.html>