

# Let Them Have DOIs: Persistent Identifiers for Digital Assets in the University of British Columbia

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# To cover:

- Overview of Persistent Identifiers (DOIs, Handles, ARKs, PURLs)
- Focus on DOIs
- UBC approach to DOIs



Image - <https://www.flickr.com/photos/cayusa/>

# What are Persistent Identifiers?

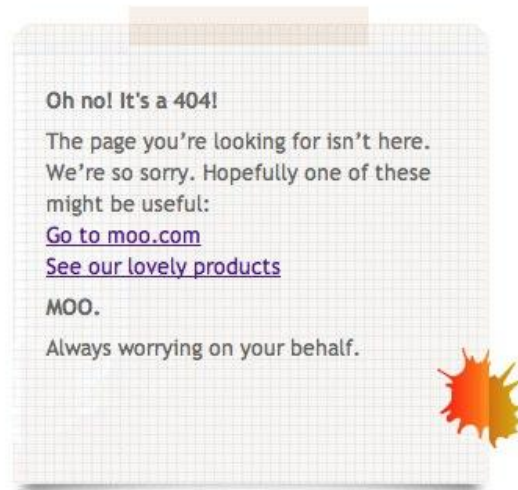
- A persistent identifier is a long-lasting reference to a digital resource
- Usually has two parts:
  - A unique identifier (ensures the provenance of a digital resource)
  - Location for the resource over time (ensures that the identifier resolves to the correct location)

**Share link (DOI):** <https://dx.doi.org/10.14288/1.0056616>



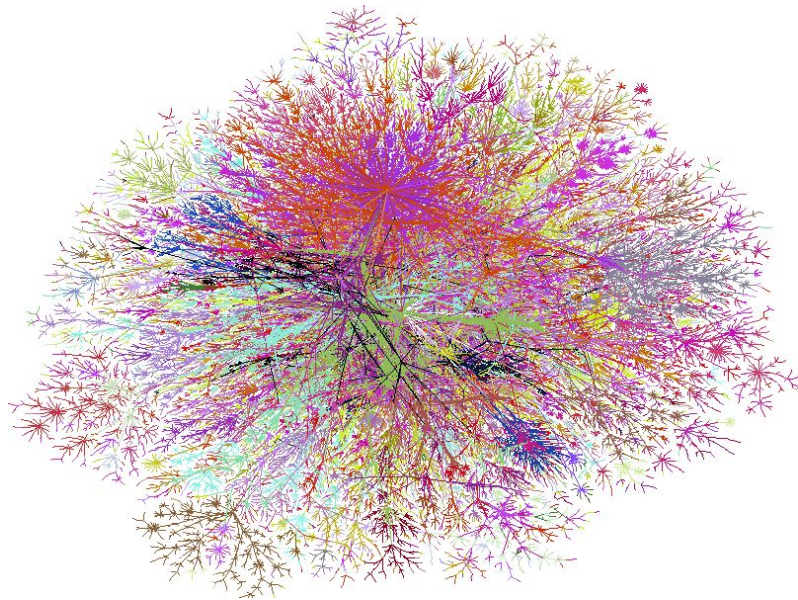
# Why use Persistent Identifiers?

- Persistent identifiers solve the problem of the persistence of cited resource, particularly in the scholarly literature
- Persistent identifiers can also be used 'behind-the-scenes' to manage cataloguing and describing, or providing intellectual control and access to born-digital materials (e.g. [private DOIs](#) in Dataverse)
- Some persistent identifiers (e.g. DOIs), have an added value in discoverability, making digital items findable and reusable in multiple scholarly resources



# Handles

- **Handles** are unique and persistent identifiers for Web resources, with a central registry to resolve URLs to a location. Each Handle identifies a single resource, and the organisation which minted them maintains the resource
- The Handle system also underpins the technical infrastructure of DOIs
- UBC Library use of Handles - ciRcle (DSpace) and Abacus Dataverse



# Archival Resource Key (ARK)

- **ARK** is an identifier scheme by California Digital Library (CDL), aiming to identify objects in a persistent way.
- With ARK, hosting arrangement does not affect identity.
  - <http://gallica.bnf.fr/ark:/12148/bpt6k5834013m>
  - <http://bnf.example.org/ark:/12148/bpt6k5834013m>
- Can be used via CDL's EZID - <http://ezid.cdlib.org/>
- Used heavily in Bibliothèque nationale de France (BnF) and other heritage institutions...



# Persistent Uniform Resource Locator (PURL)

- **PURL** is a permanent web address which redirects to the location of the requested web resource using standard HTTP
- Used a lot in online Course Reserves (such as [UBC LOCR](#))
- Difference between PURLs and Handles - read more here - [https://www.doi.org/factsheets/DOI\\_PURL.html](https://www.doi.org/factsheets/DOI_PURL.html)





# Digital Object Identifiers (DOIs)

- DOIs are digital identifiers of a digital or physical object
  - Persistent URL
  - Metadata package (Datacite metadata)

<i>ID</i>	<i>Property</i>	<i>Obligation</i>
1	Identifier (with type sub-property)	M
2	Creator (with name identifier and affiliation sub-properties)	M
3	Title (with optional type sub-properties)	M
4	Publisher	M
5	PublicationYear	M



Image - <https://www.flickr.com/photos/wakingtiger/>



# What is a DOI?

- ISO standard
- Overseen by the International DOI Foundation (IDF)
- Datacite Canada is Canadian Registration Agent (RA)

## ISO 26324:2012

Information and documentation -- Digital object identifier system

### Abstract

[Preview ISO 26324:2012](#)

ISO 26324:2012 specifies the syntax, description and resolution functional components of the digital object identifier system, and the general principles for the creation, registration and administration of DOI names (where DOI is an acronym for "digital object identifier").



Image - <https://www.flickr.com/photos/pamillne/>

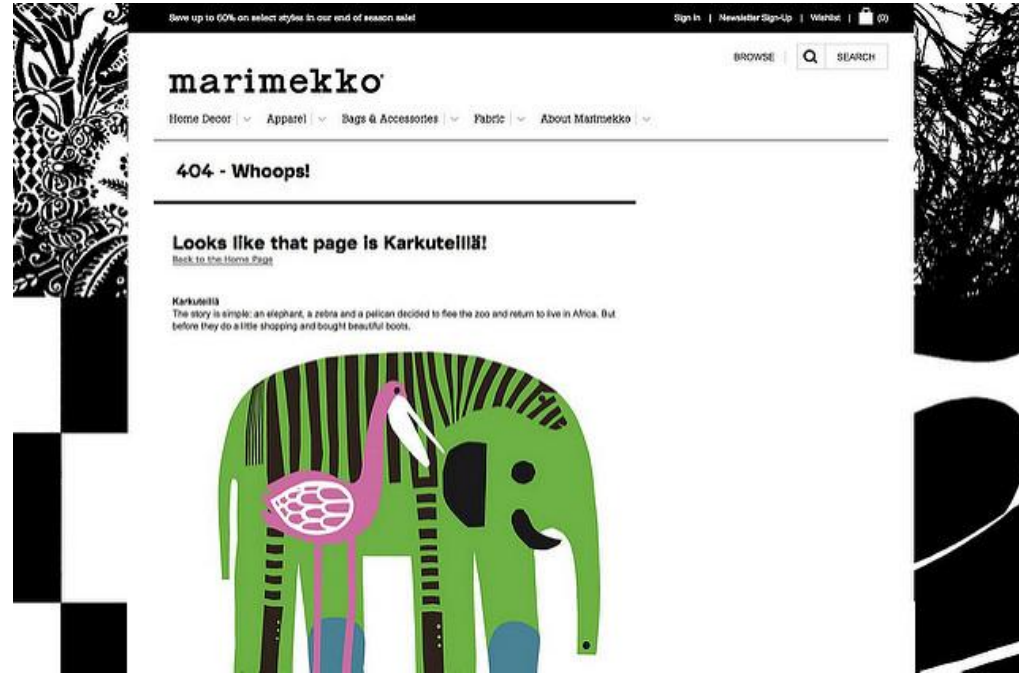
# What is a DOI?

- Could be issued for:
  - Articles
  - Books
  - Book chapters
  - Datasets
  - Images
  - Code
  - Almost anything on the Web



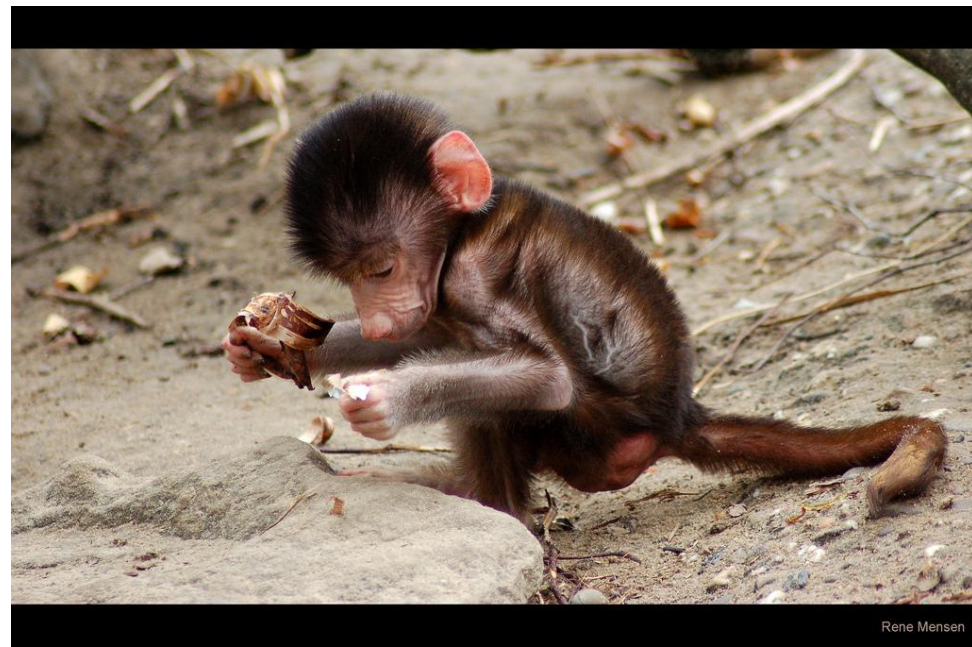
# Why useful?

- Persistent URL
- Your links don't break!
- For that... you actually need a resolver (e.g. handle, PURL, etc)... talk to your library!



# Why useful?

- Discoverability!
- DOIs are lingua franca - metadata speaks to Google, Crossref, VIVO, [ORCID](#), [Datacite](#), DataOne, and many more...

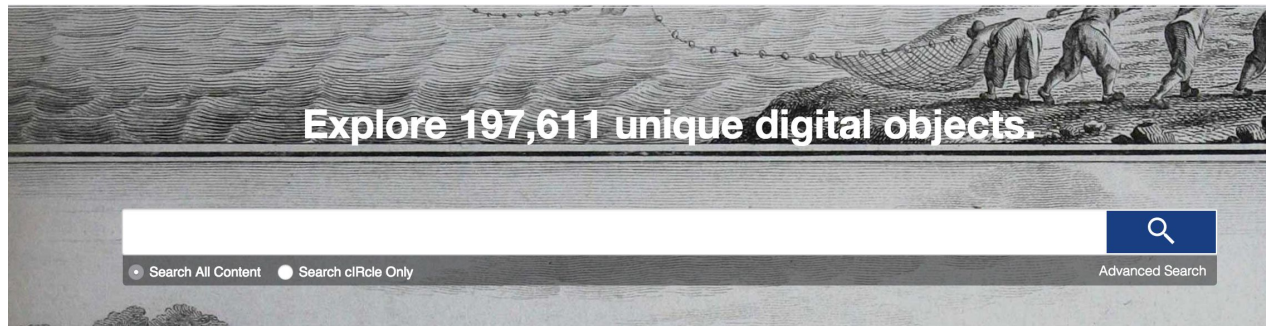


Rene Mensen

# Here @ UBC

- We issue DOIs for Library digital assets in Open Collections - <https://open.library.ubc.ca/>

## Open Collections



DOI

10.14288/1.0304648

# Here @ UBC

- We also developed a GUI to mint DOIs as a Library service
- More info here - <http://researchdata.library.ubc.ca/plan/get-dois/>

Image - <https://www.flickr.com/photos/lestropie/>



# UBC DOIs GUI

@ <https://doi.library.ubc.ca/>

## XML Workflow | ~1 - 10 Items

### Prepare Metadata Online


Use our Online XML Editor

launch editor 

## CSV Workflow | ~10 - 100 Items

### Prepare Metadata Offline

Download a CSV Template

Template	Description	
Mandatory Fields - Default English	No option to set language attribute, system defaults all instances to 'en-us'. Reduces data entry.	

## Metadata Guide(s)

### UBC Library: 'DOI in 5'

A short guide on the mandatory fields needed to get your DOI, using this tool, in less than 5 minutes :)



### DataCite: Metadata v3.1

A Comprehensive guide on the structure, along with examples and lists of controlled vocabularies for fields can be referenced from the





# Here @ UBC

- We sign the license with Datacite Canada (NRC/CISTI)
- Flexible DOIs -- One-offs vs. CSV vs. programmatically
- Happy to collaborate with others on campus and beyond...



# Questions?

