The Dataverse Network and OJS Project to Encourage Data Sharing & Citation in Academic Journals

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IASSIST 2013 - Cologne, Germany

Motivation

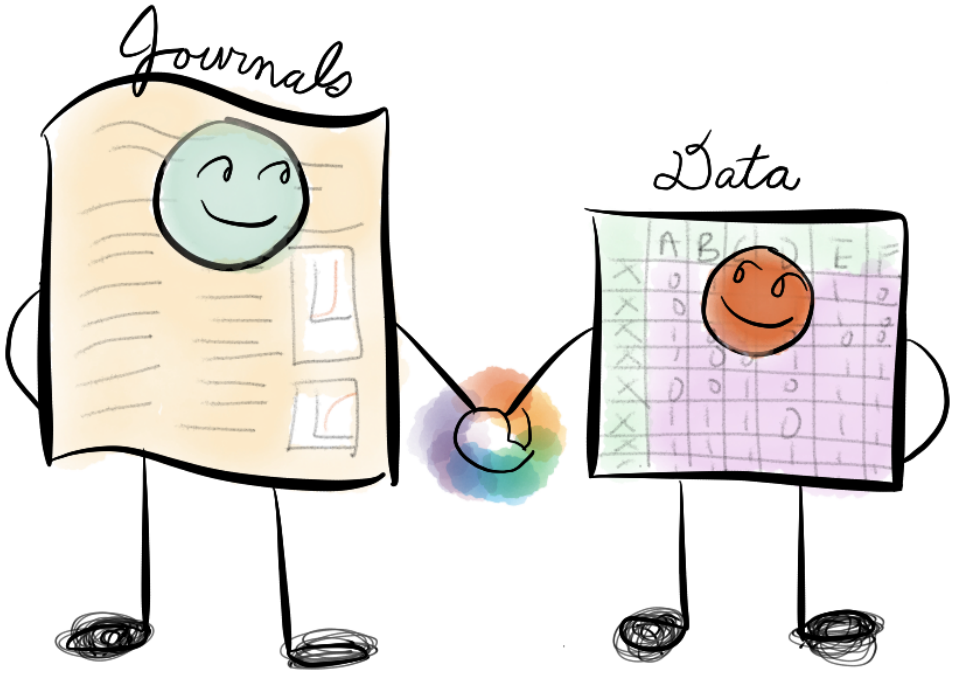

Photo: Jean Liu

Why Connect Published Work to Data

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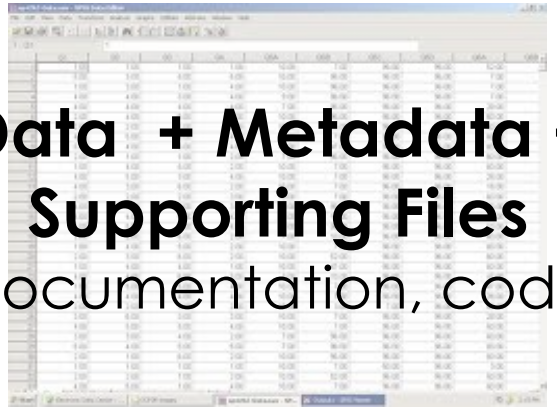

Data + Metadata + Supporting Files
(documentation, code)

=

A third party can replicate or reuse,
thus validate and advance science

Quotes for “Why?”

"The most immediate of these obstacles is the lack of a consolidated infrastructure for the easy sharing of data" - JORD Project results via Edawax blog

"Any moves towards data sharing are dependent upon the cooperation of journals.”* – Sergiu Ghergina and Dr. Alexia Katsanidou

*from European Political Science 2013: Data Availability In Political Science Journals

A team was assembled…

2 year Sloan Foundation grant (05/12-05/14):

- Public Knowledge Project (PKP)
  - Simon Fraser University
  - Stanford University (John Willinsky)

- Dataverse Network Project
  - Harvard University's Institute for Quantitative Social Science (IQSS) (Gary King & Merce Crosas)
  - Micah Altman – Director of Research at MIT

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The Dataverse Network™ Project

Project Proposal

Who?: Address the needs of **journal publishers** and editors in addition to researchers and data managers.

What?: We propose to enable journals to:
Seamlessly manage the submission, review, and publication of data associated with published articles.

How?: We will help build the needed **technology** and create **awareness** among journal editors and publishers regarding the importance of data sharing and preservation.

The End Result?

Help **increase** the replicability and reusability of published work in social science (and other disciplines) by improving the infrastructure for, practice of, and incentives related to **data publication and citation**.

Photo: Flickr Commons

Integrating Open Source Systems

We plan to do this by integrating two well-established open-source systems:

1. Open Journal Systems (OJS)
   [Willinsky 2005]

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2. Dataverse Network
   [King 2007; Crosas 2011]

The Dataverse Network™ Project

Open Journal Systems (OJS)

journal of the circle for lacanian ideology critique

S publishes peer-reviewed essays on Lacanian and related topics from the fields of art, film and literary criticism, political, philosophical and ideological critique. With permission, S also re-publishes hard to obtain essays and translations from seminal thinkers in Lacanian studies whose work deserves the worldwide dissemination open access publishing affords.

Vol 5 (2012): Topology

Special topic on topology edited by Benjamin Bishop

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Editorial

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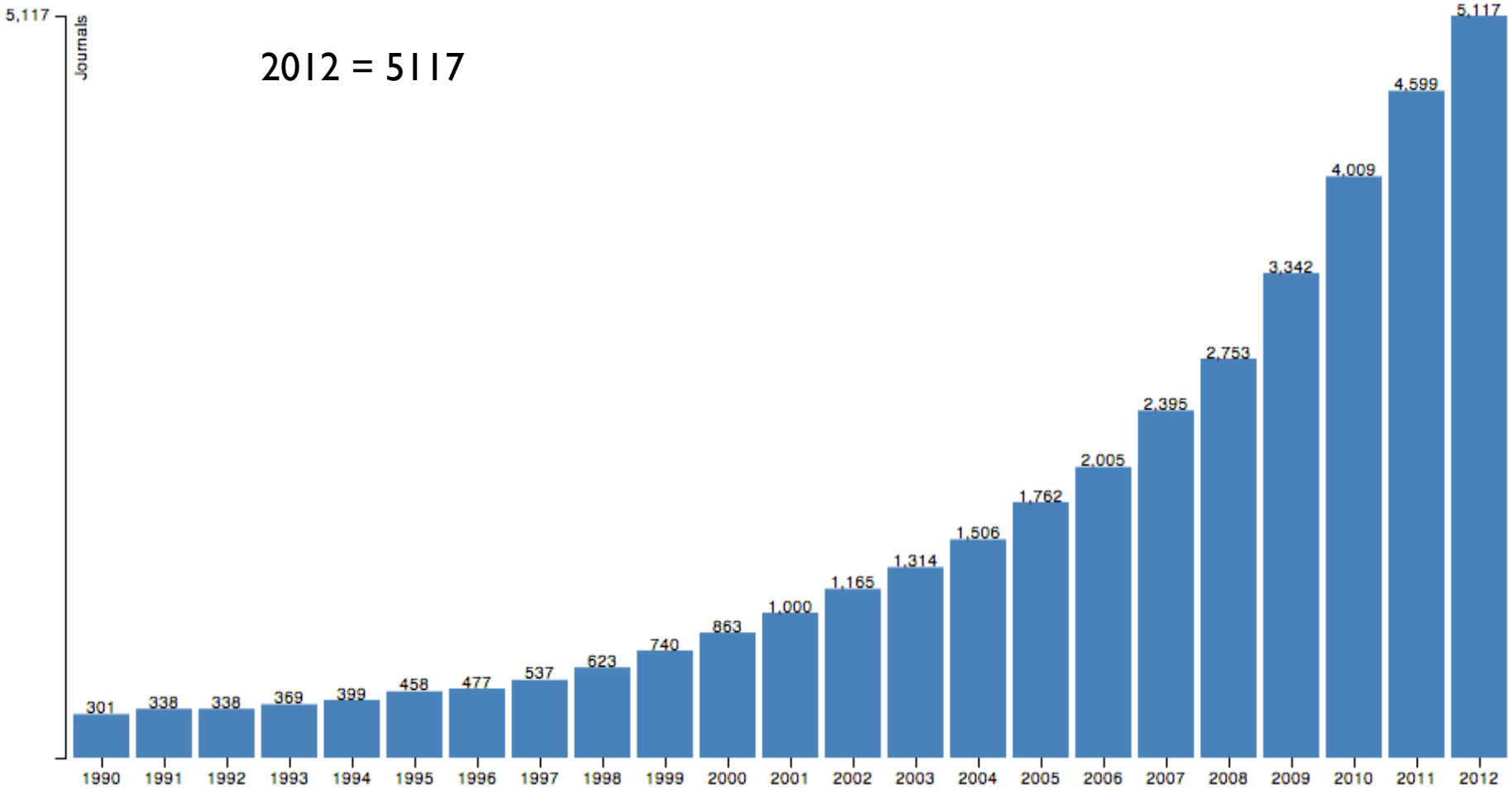
OJS Journals w/ at least 10 articles per year



Credit: Juan Alperin, PKP

OJS provides…

- ✓ Technical infrastructure for an entire editorial management workflow (submission, peer review, indexing).
- ✓ 'Plugin' architecture (a la WordPress, Drupal, etc) to easily add new features without the need to change the entire core code base.
- ✓ Universal Metadata standards (expandable Dublin Core).
- ✓ Inter-operability with other systems through standard protocols (such as OAI-PMH, APIs).
- ✓ Option for backups and replication of journals in different locations (LOCKSS) so access is never lost.

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Dataverse Network

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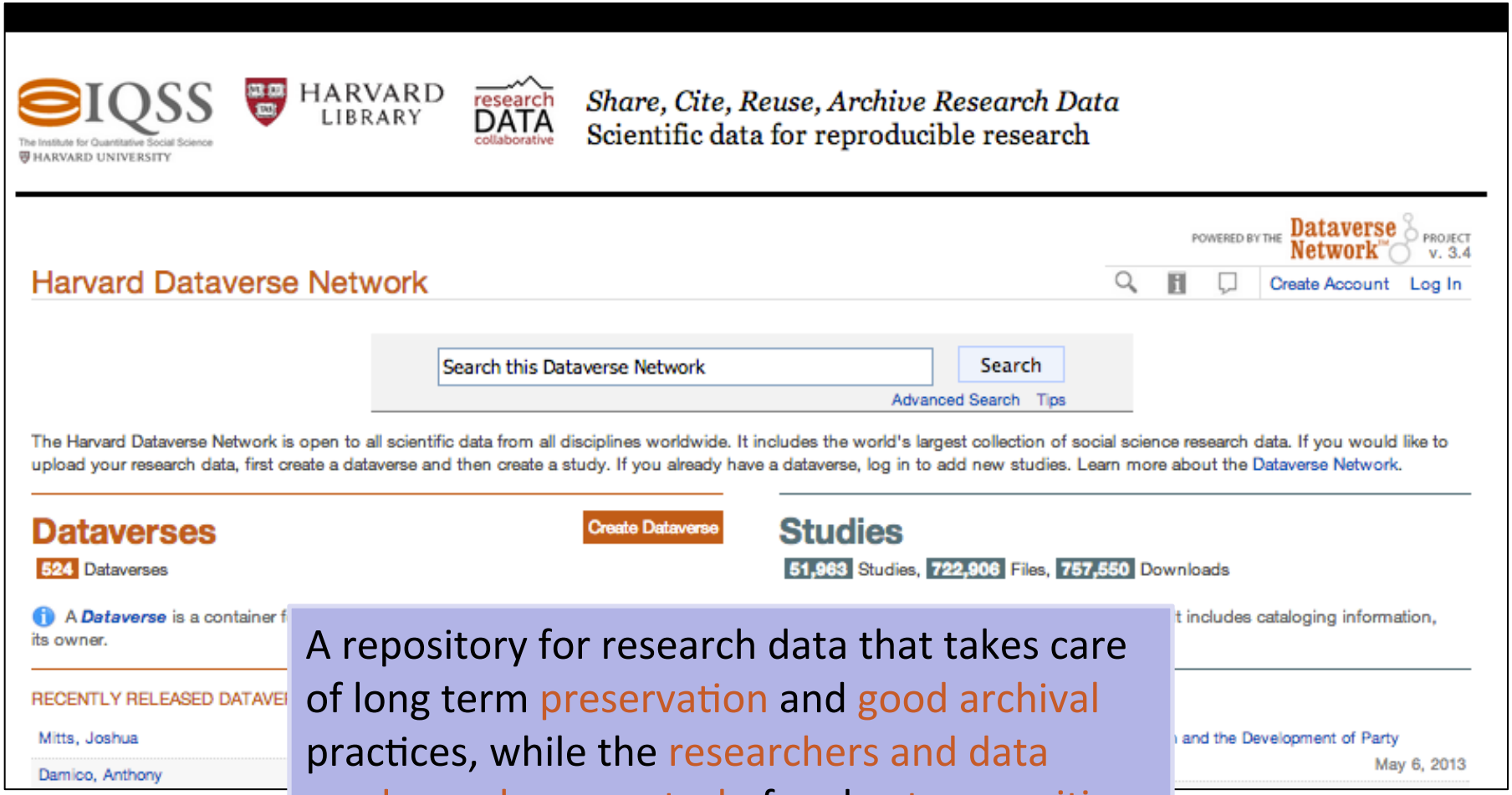
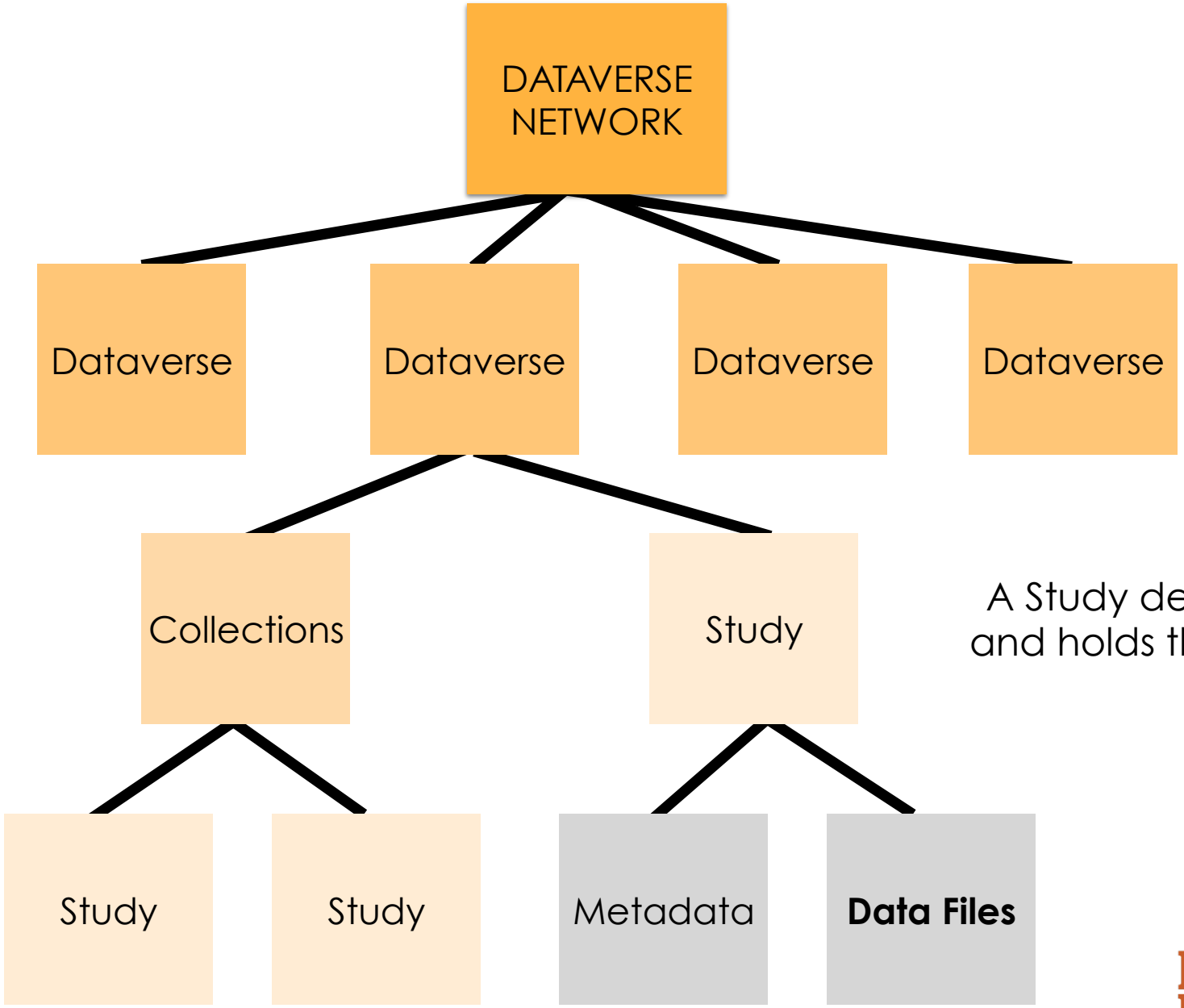


A repository for research data that takes care of long term preservation and good archival practices, while the researchers and data producers keep control of and get recognition for their data.



A Dataverse is a virtual data archive with its own branding

A Study describes and holds the Data

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Dataverse Network provides…

- ✓ Option for backups and replication of data in different locations (LOCKSS) so data is never lost.
- ✓ Re-format for long term accessibility so data never become obsolete.
- ✓ Extract Variable Metadata from data sets.
- ✓ Universal Metadata standards (DDI, Dublin Core).
- ✓ Inter-operability with other systems through standard protocols (such as OAI-PMH, APIs).
- ✓ Generates a Handle for permanent linking to datasets.

The Dataverse takes care of the archival infrastructure ("plumbing") for you!

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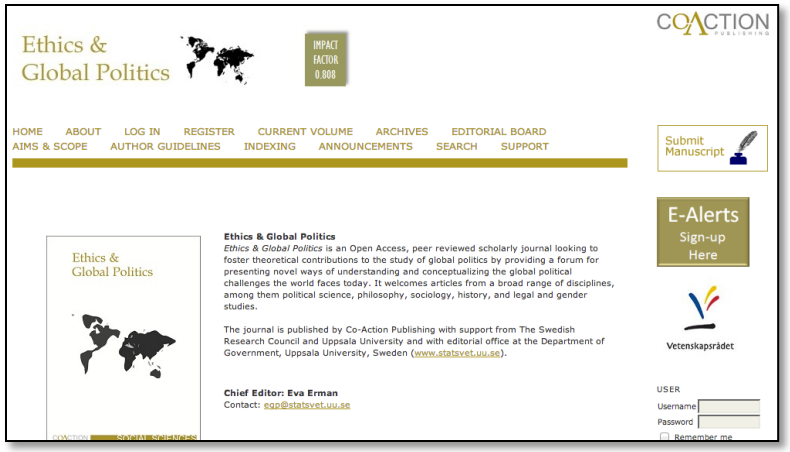
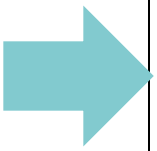
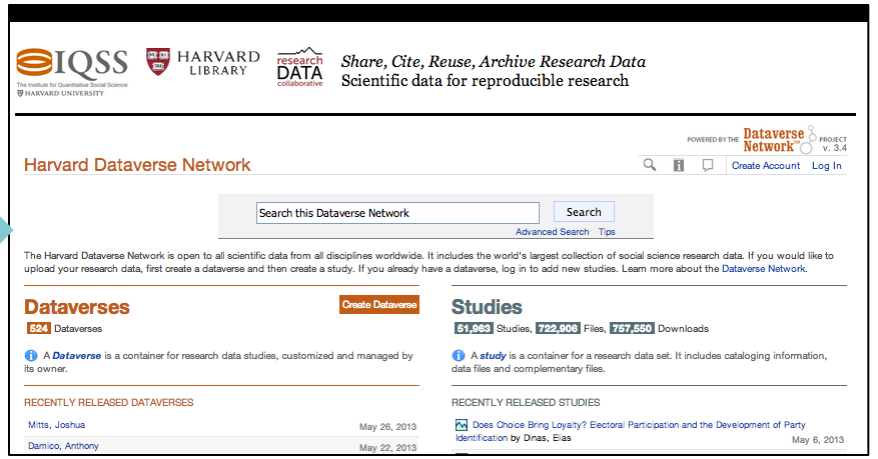
OK so what is the integration going to do?







OJS plugin for:
Data + metadata + supporting files,
sent via SWORD API
to the Dataverse

Which Workflow?

Slide acknowledgement: Merce Crosas

Progress to-date

Compiled a list of potential journals (~100) that we can work with. Contacted a small sample of publishers to be our 1st round of pilot testers (30+ journals).

Publishers reviewed our plugin workflow and mockups to provide feedback before beginning development.

Scholars Portal
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COACTION PUBLISHING

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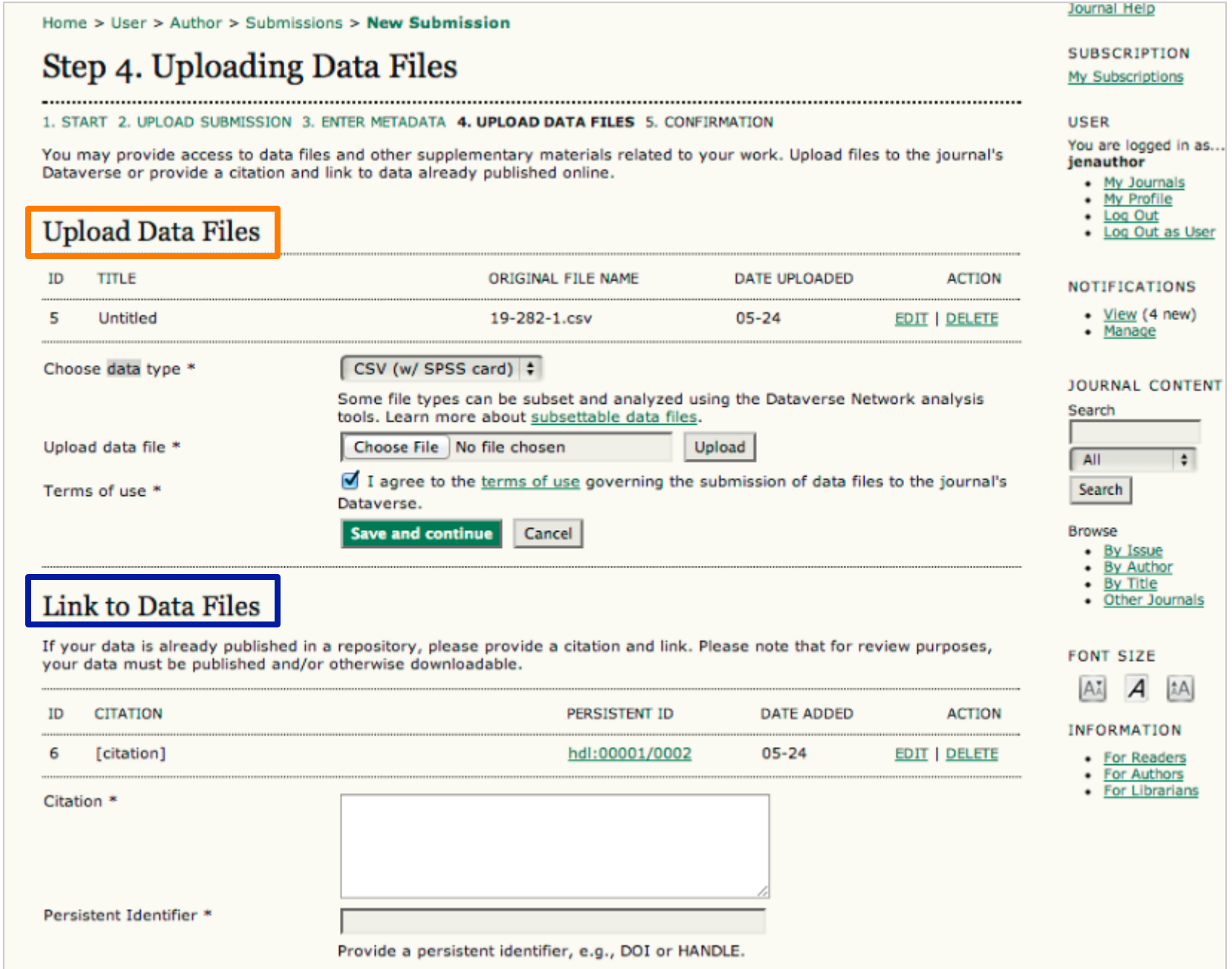
ULS
UNIVERSITY LIBRARY SYSTEM

UNM UNIVERSITY LIBRARIES

International Journal of Education Policy & Leadership

Mockups of OJS Plugin: Journal Setup

Mockup of Data Deposit (in OJS)



Home > User > Author > Submissions > **New Submission**

Step 4. Uploading Data Files

1. START 2. UPLOAD SUBMISSION 3. ENTER METADATA **4. UPLOAD DATA FILES** 5. CONFIRMATION

You may provide access to data files and other supplementary materials related to your work. Upload files to the journal's Dataverse or provide a citation and link to data already published online.

Upload Data Files

ID	TITLE	ORIGINAL FILE NAME	DATE UPLOADED	ACTION
5	Untitled	19-282-1.csv	05-24	EDIT | DELETE

Choose data type * CSV (w/ SPSS card)

Some file types can be subset and analyzed using the Dataverse Network analysis tools. Learn more about subsettable data files.

Upload data file * Choose File No file chosen Upload

Terms of use * I agree to the terms of use governing the submission of data files to the journal's Dataverse.

Save and continue Cancel

Link to Data Files

If your data is already published in a repository, please provide a citation and link. Please note that for review purposes, your data must be published and/or otherwise downloadable.

ID	CITATION	PERSISTENT ID	DATE ADDED	ACTION
6	[citation]	hdl:00001/0002	05-24	EDIT | DELETE

Citation *

Persistent Identifier *

Provide a persistent identifier, e.g., DOI or HANDLE.

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Step 4a. Upload Data Sets

1. START 2. UPLOAD SUBMISSION 3. ENTER METADATA **4. UPLOAD DATA SETS** 5. CONFIRMATION

<< Back to Supplementary Files

Metadata

To index this supplementary material, provide the following metadata for the uploaded file.

Title* Untitled

Author(s) of file

Keywords

Brief description

Category Data Files

Date 2012-12-11 YYYY-MM-DD

Date when data was collected or instrument created.

Metadata fields will be selected ahead of time by journal admin.

Supplementary File

File name 3-18-1-SP.pdf

Original file name 19-282-1-PB.pdf

File size 248KB

Date uploaded 2012-12-11 02:09 PM

Present file to reviewers (without metadata), as it will not compromise blind review.

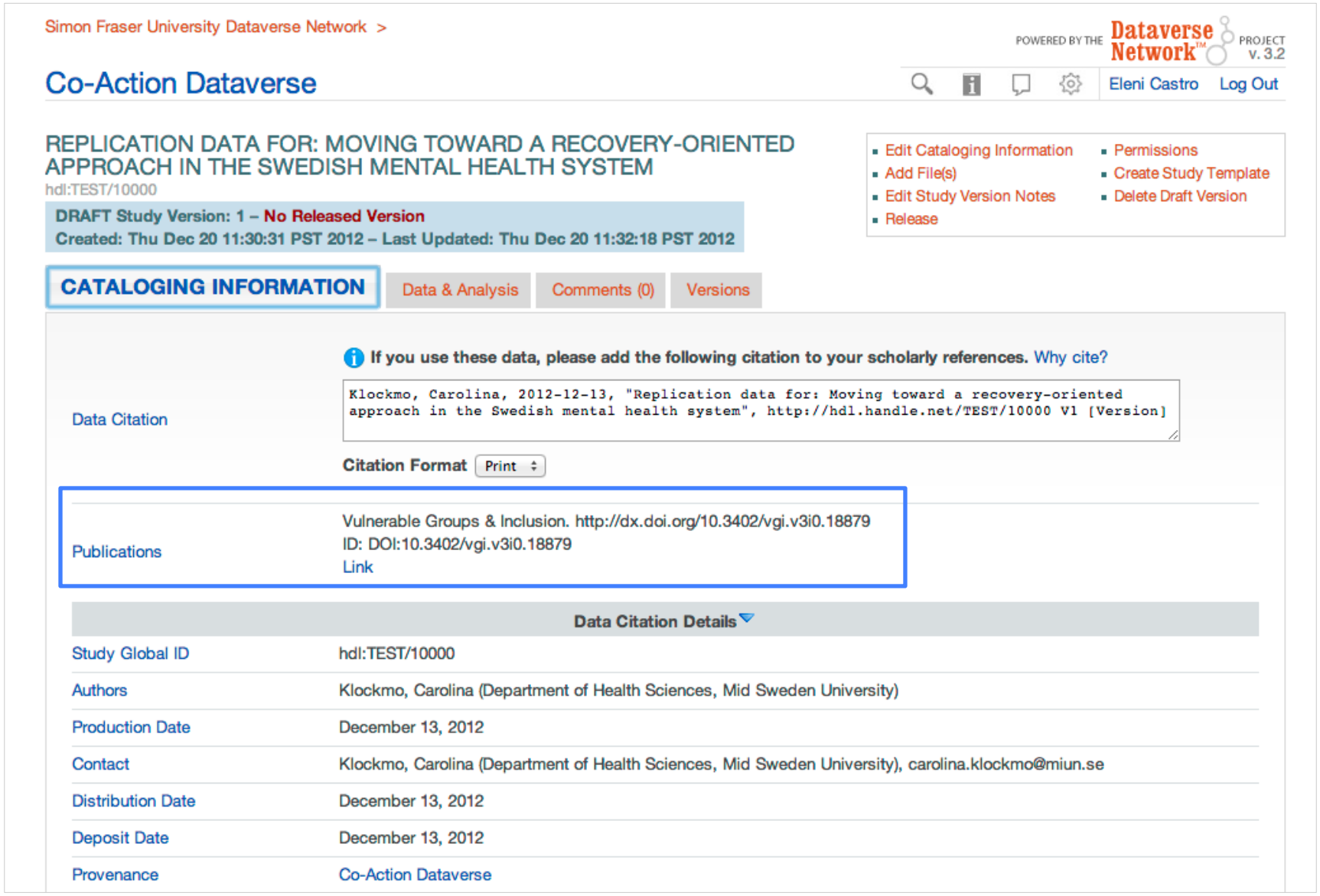
Replace file Browse... Use Save to upload file.

Save and continue Cancel

* Denotes required field

Mockup of Published Article + Link to Data

Data in the Dataverse



Next Steps

1. Begin development of plugin and API (SWORD2-compliant) (Summer 2013).
2. Additional publishers will test + provide feedback through a survey (Fall 2013).
3. Provide best practices for data review/sharing policies and data citation (starting Fall 2013).
4. Test and release updated versions of OJS + Dataverse Network (Spring 2014).
5. Make code & docs available for everyone.

High Level Project Roadmap

Phase	Milestones/Deliverables	Timeframe
1	Contact OJS Journals for feedback on OJS Dataverse Plugin Workflow and Use cases.	Fall 2012-Winter 2013
2	OJS-Dataverse team develops plugin/API.	Spring-Summer 2013
3	Journals test + give feedback.	Fall 2013
4	Gather feedback from pilot testers.	Fall 2013
5	Test + Release new versions of OJS and Dataverse.	Winter-Spring 2014
6	Technology made available for others. Release best practices, and other documentation.	Spring 2014

Some Advantages to Integration

1. Streamlining authors' article and data deposit process.

2. Permanent 2-way linking of the published article with its archived data.

3. Increase visibility/access, and encourage data citation, replication and re-use.

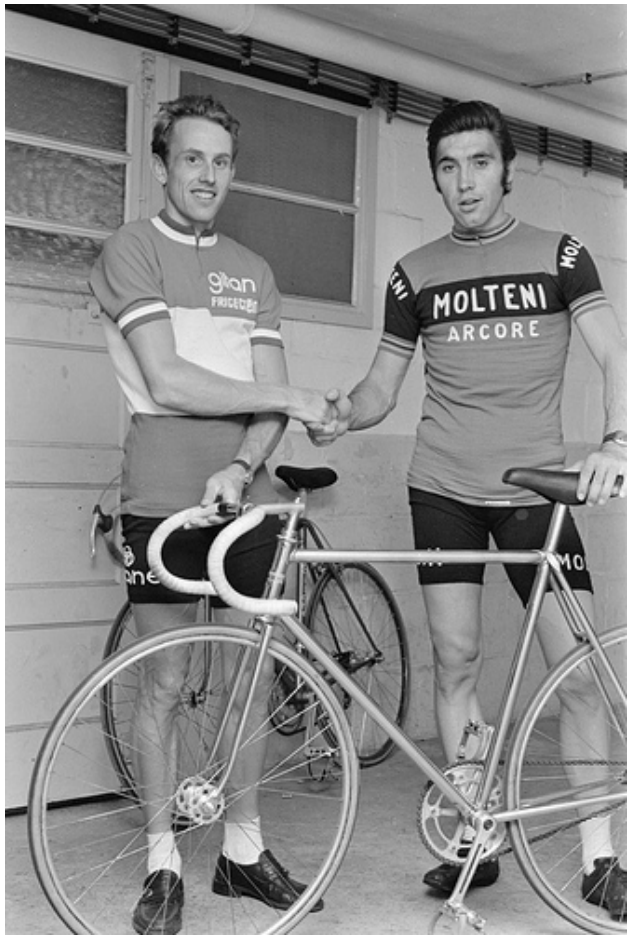


Photo: Flickr Commons

Thank you!

Contact
Eleni Castro (Project Coordinator)
ecastro@fas.harvard.edu

Project **Web site / References**
http://projects.iq.harvard.edu/ojs-dvn

Photo: Flickr Commons

Crosas, M., The Dataverse Network™: An Open-Source Application for Sharing, Discovering and Preserving Data, D-lib Magazine 17(1/2). 2011.

King, G. "An Introduction to the Dataverse Network as an Infrastructure for Data Sharing." Sociological Methods and Research, 32(2), 173–199. 2007.

Willinsky, J.. Open Journal Systems: An example of open source software for journal management and publishing. Library Hi-Tech 23 (4), 504-519. 2005.