UC Irvine

LAUC-I and Library Staff Research

Title Research Data Management: Local UCI Outreach to Faculty

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Research Data Management Local UCI Outreach to Faculty

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Presentation prepared for UCRD 25 February 2013 Meeting



Faculty Survey at UCI

Faculty Assessment of the State of Research Computing: Initial findings by UCI OIT as of November 2012

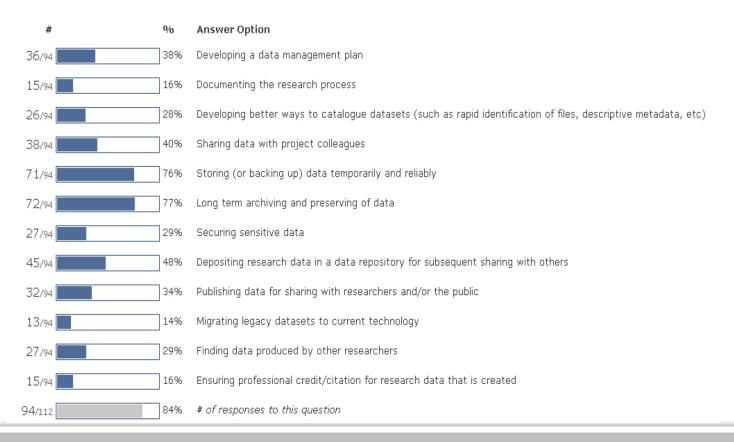
http://sites.uci.edu/fasrc/files/2012/11/Preliminary-Analysis-of-FASRC-Survey-Responses.pdf

- 121 respondents
- 63% representing self
- 42% representing 302 people (self and others in group)



Q8: Data Management

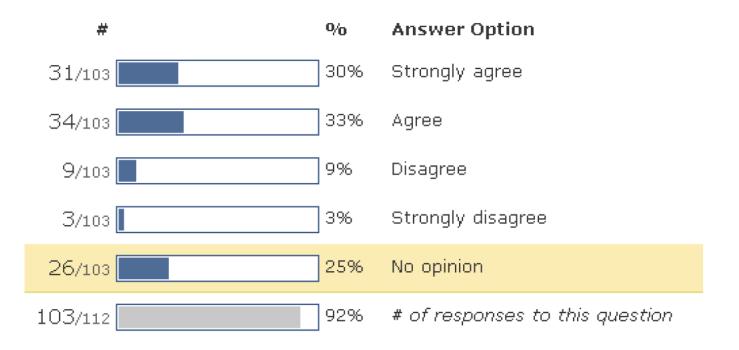
Data management for research typically involves the collection, cleaning, merging, analysis, storage, and sharing of research data. In the following support areas for data management, indicate those areas where you could use more assistance and support from the campus:





Q19.2: Centralized Storage

19.2. UCI should provide a centralized data storage system for my research data.





Other Findings

- Q18. ...if you agree that UCI should have more data management services, what should they provide?
- More data analysis & visualization (47% 35 of 74)
- More data curation (46% agree or strongly agree – 33 of 71)
- More data discovery & integration (35% 25 of 71)

Research Data Management

Many academic libraries worldwide are now helping manage and provide stewardship for research data generated by faculty:

- Data are organized, elements identified, and the dataset is made retrievable
- Allows eventual deposit in secure repositories
- Facilitates subsequent data sharing



Data Sharing

Data Sharing occurs when, upon the agreement of a researcher, research data are made available to the research community for further, secondary analysis. Potential benefits include:

- Greater impact on the field
- Credit and citations



Data Sharing Mandates

Participation in data sharing varies by discipline but recent federal mandates have placed the onus on researchers to come up with Data Management Plans indicating how one would manage research data during a research project and beyond.



Finding Repositories

At UCI Libraries, we have created a subject guide that not only links to California Digital Library (CDL) tools and services but also to discipline-based subject repositories such as those for digital humanities, social sciences and the sciences.

This resource will help researchers locate appropriate subject repositories as they develop their data management plans.



Subject Guide

UCI LIBRA	RIES LIFORNIA • IRVINE	JCI LIBRAH	RIES
Libraries » Subject and Course Guides * UC Irvine access only	» Research Data Management		Admin Sign In
Managing research data: Tools & re		ement, data repositories, data sharing, research data nent - 🚇 Print Guide - 🔝 RSS Updates - 🖸 SHARE - 🖪	Y 🖂)
	rritt Data Management Plar For Librarians		es: Social Sciences
Home P Comments(0) A Print F	Page	Search:	This Guide Search
Data Management Tools	Data Management & Sh	aring: Key Sites	Subject Guide
 Tools & Services from UC Curation Center These tools and services include the following: EZID - a service licensed to UCI researchers for identifying research files DMPTool - a tool to help grant applicants fill out a concise data management plan geared to specific funding agencies. See tabs on this subject guide for more information. 	discipline-based research dai information about potential re data. Careful Data Management of also helps in making such da Sharing of research data con the norm in some disciplines National Science Foundation	tributes to scientific knowledge. Such data sharing has been and is increasingly mandated by funding agencies, such as the CI Libraries' bibliographers who serve on the Libraries' Data	P
Comments (0)	Listed below are some key		Daniel C. Tsang



Soc Sci Repositories

Data Repositories: Social Sciences	Comments(0)	📇 Print Page
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Search:

This Guide 🔻 Search

Social Science Data Repositories

Research Data is data generated in the research process. This subject guide delineates discipline-based research data repositories that maintain and archive research data, to help researchers and faculty who seek more information about potential repositories where they may be able to deposit their research data.

ICPSR

ICPSR maintains a data archive of more than 500,000 files of research in the social sciences. It hosts 16 specialized collections of data in education, aging, criminal justice, substance abuse, terrorism, and other fields: ICPSR welcomes and encourages deposits of digital data. Deposits are made using a secure Data Deposit Form to describe the data collection and upload content. You will need a MyData account to create, access, and authenticate your deposit. - Web site

IQSS Dataverse Network

From the Institute for Quantitative Social Sciences at Harvard University, an easily accessible source for depositing research data. Here is a direct link to the Create your own dataverse page. UCI Social Science Data Archives on DataVerse: Click here



UCISpace @ the Libraries

Captures **Stores** Indexes Preserves **Redistributes** research material

	IBRARIES	RVINE	
UCIspace Home			
UCIspace Home Browse UCIspace • Collections • Titles • Dates • Authors • Subjects	© Search UCIspace	The LIBRARIES (@ the Libraries:	UCIspace for the UCI preserve d
My Account Login 	Search the Collections	Advanced Search Select a collecti	ion
Statistics			

UCISpace

UCISpace is UC Irvine Libraries' digital repository for a variety of digital content including digital files, videos, audio recordings, photographs, text and other digitized content.

A current project: Collaborating with the School of Humanities to archive Vietnamese American oral histories.

VAOHP



UCI LIBRARIES UNIVERSITY of CALIFORNIA · IRVINE

VAOHP Home

Search	VAOHP	

Advanced Search

Browse VAOHP

Narrator Interviewer Subject Decade of Birth Source of Interviews

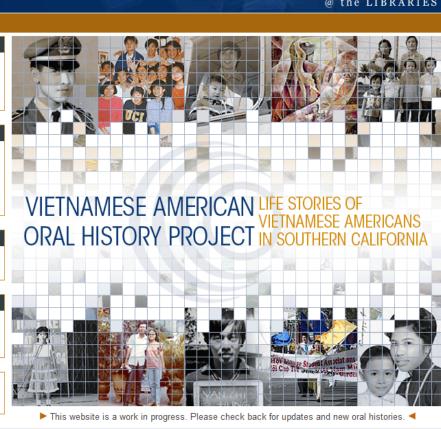
About VAOHP

About VAOHP Contact Us

Other Links

VAOHP Blog UCI Libraries Southeast Asian Archive UCI Dept of Asian American Studies





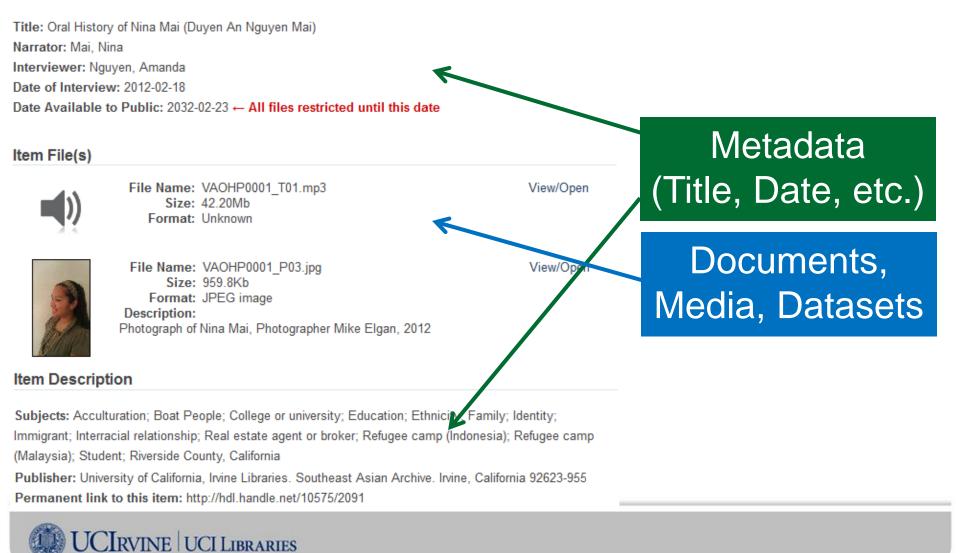
University of California · Irvine, CA 92823 · 949.824.8838 © 2009-2012 The Regents of the University of California. All rights reserver Comments and Suggestions Maps & Directions Privacy Statement RSS Feeds Login № 300 interviewsby 2014№ Includes:

- Audio/Video
- Transcripts
- Images of interviewees



Capture and describe

Oral History of Nina Mai (Duyen An Nguyen Mai)



Browse and Search

& Granular Browse and search across all UCISpace or within a single collection or subcollection

k Full Text Search Every word of your text-based content is searchable

Advanced Search

Conjunction	Search type	Search for	
	full text 👻	da nang	
AND -	date of interview 🔻	2011	
AND -	subject -	activism	
Results/page	10 - Sort items by	decade of birth 👻 i	n order descending 👻
		Go	



Preserve and Access

Reservation

UCISpace items are backed-up in CDL's Merritt service

Representation Representation Representatio Representatio Representation Representation Repres

Each UCISpace item is assigned a permanent URL as a perpetual link to the item

Restricted Access option

Limited access via Virtual Reading Room. Embargo date.



UCI Libraries





A Discovery Tool: SDA

ICPSR Studies at UCI: Ethnic & Other Studies

*UC Irvine access only

Listed here are ICPSR studies for which UCI Libraries is providing online data analysis via SDA (Survey Documentation & Analysis). Online data analysis allows users to:

- · Search for variables of interest in a dataset
- Review frequencies or summary statistics of key variables to determine what further analyses are appropriate
- · Review frequencies or summary statistics for missing data
- · Produce simple summary statistics for reports
- · Create statistical tables and charts from raw data
- Create a subset of cases or variables from a large collection to save time and storage space when downloading to a personal computer
- Browse the electronic codebook
- Children of Immigrants Longitudinal Study*
 Principal Investigators: Portes, Alejandro, Princeton; Rumbaut, Rubén G., UCI
- Hispanic Established Populations for the Epidemiologic Study of the Elderly (HEPESE) Wave 5, 2004-2005 [Arizona, California, Colorado, New Mexico, and Texas]*

Principal Investigators: Markides, Kyriakos S., University of Texas-Medical Branch; Ray, Laura A., University of Texas-Medical Branch; Angel, Ronald, University of Texas-Austin; Espino, David V., University of Texas-San Antonio. Health Science Center

 Immigration and Intergenerational Mobility in Metropolitan Los Angeles* Principal Investigators: Rumbaut, Rubén G., UCI; Bean, Frank D., UCI; Chávez, Leo R., UCI; Lee, Jennifer, UCI; Brown, Susan K., UCI; DeSipio, Louis, UCI; Zhou, Min, UCLA



Table from UCI Research

Chinese Vietnamese

SDA 3.5: Tables

Immigration and Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA), 2004

Feb 22, 2013 (Fri 11:59 AM PST)

Variables		
Role Name Label Range MD		
Row	Row Q183_8 Q183_8 Other lang spoken- Vietnamese -9-1	
Column Q183_5 Q183_5 Other lang spoken- Cantonese -9-1		

Frequency Distribution					
Cells contain: - Column percent -N of cases		Q183_5			
		-9 Not applicable	0 No	1 Yes	ROW TOTAL
	-9: Not applicable	100.0 1,632	.0 0	0 . 0	35.1 1,632
Q183_8	0: No	0 . 0	89.8 2,548	89.8 168	58.3 2,716
	1: Yes	0 . 0	10.2 288	10.2 19	6.6 307
	COL TOTAL	100.0 1,632	100.0 2,836	100.0 187	100.0 4,655
Means		-9.00	.10	.10	-3.09
Std Devs			.30	.30	4.35



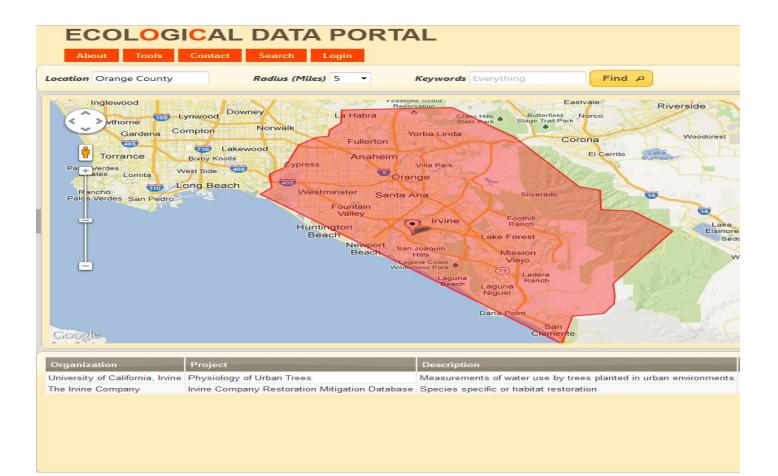
Faculty Metadata Site

Faculty have utilized the Web to post information about how to locate researchgenerated datasets from fellow researchers.

One excellent example is the Ecological Data Portal [http://ecodataportal.org/] based at the Center for Ecological Biology at UC Irvine.



Ecological Data Portal





Portal's Irvine Data Sources

Organization	Project
University of California, Irvine	Physiology of Urban Trees
UC Irvine	Assessing the importance of arthropod abundance, community composition, and habitat structure as determinants of habitat quality for Cactus Wren (Campylorhynchus brunneicapillus)
UC Irvine	Assessing the importance of arthropod abundance, community composition, and habitat structure as determinants of habitat quality for Cactus Wren (Campylorhynchus brunneicapillus)
The Irvine Company	Irvine Company Restoration Mitigation Database
The Nature Conservancy	Vegetation monitoring
The Nature	Vegetation monitoring



Data Management Plans

With the current mandates from funding agencies such as NSF, researchers are struggling to find places to archive their datasets.

Libraries can help researchers find discipline-based repositories to archive their datasets.



Role for Libraries

For example, as funding agencies begin to enforce the archiving of research data, researchers will need to find ways to permanently archive their datasets now stored on Dropbox or Google docs, departmental or networked servers, or on the Web. Libraries need to be wellpositioned to perform that role.



Documenting Research

Software that can help in documenting the life cycle of a research dataset includes Colectica, which seeks to "[p]rovide your researchers with rich information about your data, with details about everything from the study concept to data collection and data processing." It is especially helpful for survey data.



Univ of Edinburgh Policy 2011

- Research data will be managed to the highest standards throughout the research data lifecycle as part of the University's commitment to research excellence.
- Responsibility for research data management through a sound research data management plan during any research project or programme lies primarily with Principal Investigators (PIs).
- All new research proposals [from date of adoption] must include research data management plans or protocols that explicitly address data capture, management, integrity, confidentiality, retention, sharing and publication.



Univ of Wisconsin Policy 2011

 UW-Madison must retain research Data in sufficient detail and for an adequate period of time to enable appropriate responses to questions about accuracy, authenticity, primacy and compliance with laws and regulations governing the conduct of the research. It is the responsibility of the *Principal* Investigator to determine what needs to be retained under this policy.



Grant Opportunity



Inter-university Consortium for Political and Social Research

Institute for Social Research P.O. Box 1248 Ann Arbor, MI 48106-1248

netmail@icpsr.umich.edu www.icpsr.umich.edu

> (734) 647-5000 (734) 647-8200 fax

Building Community Engagement in Data Citation and Open Access to Data

Inter-university Consortium for Political and Social Research (ICPSR) University of Michigan and The Alfred P. Sloan Foundation

> 2013-2014 Challenge Grant Competition Request for Proposals

> > DEADLINE: April 15, 2013



Grant Suggestions

- Training researchers in better data management practices
- Development of editorial workflows to manage & verify access to data underlying articles

URL: http://www.icpsr.umich.edu/files/datamanagement/sloan-challenge-2013.pdf



Local Collaboration

NSF Data Management Plan

As of January 18, 2011, all National Science Foundation (NSF) grant applications require a supplementary document of no more than two pages labeled "Data Management Plan". This supplement should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results, and may include:

- types of data (including samples, physical collections, software);
- metadata standards to be used;
- · policies for access and sharing (including provisions for privacy/intellectual property);
- · policies and provisions for re-use; and
- plans for archiving and preservation of access.

California Digital Library worked with other organizations to develop a DMPTool to help researchers meet these new requirements.

DMPTool - The Data Management Plan Tool allows researchers to:

- view sample data management plans;
- · preview funder requirements;
- · view the latest changes to their plans;
- · create an editable document for submission to a funding agency, and
- · accommodate different versions as funding requirements change.

Recommended documents from the UCI Office of Research that support submission of the NSF Data Management Plan include:

- 1. Suggested Elements to Cover in a Data Management Plan
- 2. Data Management Plan: Template with Suggested Content
- 3. NSF Data Management Plan

See Grant Proposal Guide (GPG) Chapter II.C.2.j for full implementation information.

Send questions regarding the NSF Data Management Plan to: DATAMP@uci.edu.

The UCI Libraries stand ready to assist grantees in identifying the options for sharing research data in an institutional or discipline-specific repository. Contact your subject librarian or the UCI Data Librarian (dtsang@uci.edu).



Future Steps for Pl's

- Incorporate research data management as a budgetary expense in grant proposals
- Collaborate with campus library or CDL on archiving research data
- Share completed DMPs with campus library



Future BIG Step for UCs

Adopt a system-wide policy on Research Data Management that incorporates open access principles of data sharing and public dissemination, with mandated protection for research subjects, in trusted archives.



E-mail: dtsang@uci.edu





Acknowledgements

My thanks to Adrian Petrisor (UCI Libraries IT) for sharing some slides on UCISpace and to Allen Schiano and Tony Soeller (UCI OIT) for their preliminary analysis of the faculty survey. And thanks to Cassie Rauser for inviting me to participate on this panel.





- U of Edinburgh Research Data Management Policy http://www.ed.ac.uk/schools-departments/information-services/about/policies-andregulations/research-data-policy
- U of Wisconsin Data Stewardship Policy
 http://www.grad.wisc.edu/research/policyrp/rpac/documents/PolicyDataStewardship.pdf
- UCI Libraries Social Science Data Archives
 http://data.lib.uci.edu
- UCI Libraries Research Data Management Subject Guide
 http://libguides.lib.uci.edu/datamanagement
- UCI Libraries NSF Data Management Plan Web Page
 http://nsfdmp.lib.uci.edu/



THANK YOU!

Questions?

