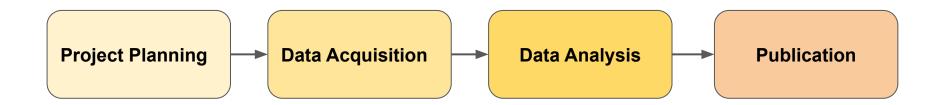
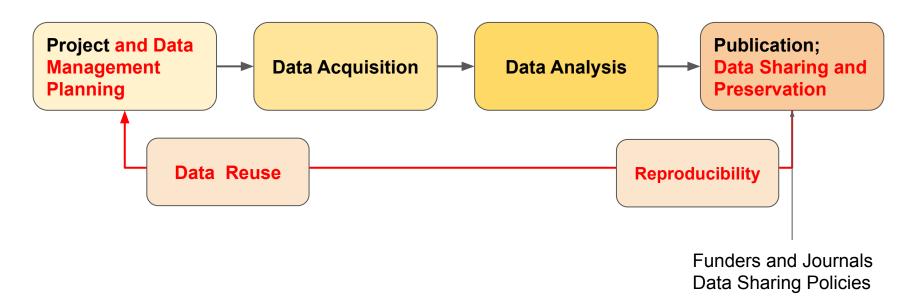
# Research Data Management + Compliance at Harvard

A Presentation and Panel Discussion

## The Old Data Lifecycle

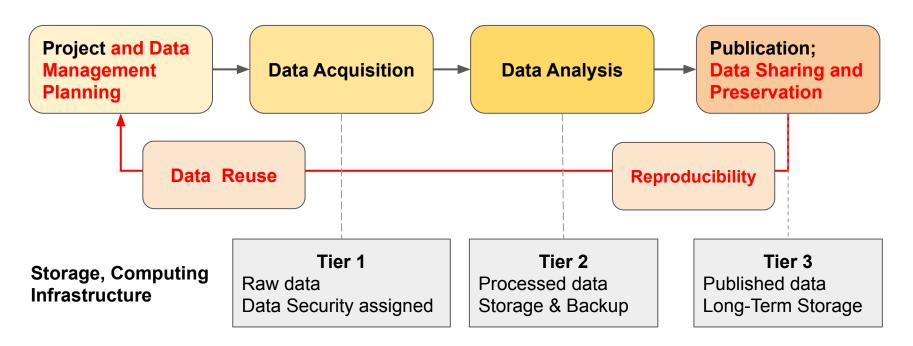


## The New Data Lifecycle Data as a Product of Research



Data Roadmap, based on Briney, 2015. Data Management for Researchers

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Data Roadmap, based on Briney, 2015. Data Management for Researchers

### A New Website

#### http://researchdatamanagement.harvard.edu

- Launched January 2019
- A Harvard-wide resource
- Supports the new data lifecycle
- News and DataShares blog
- Content from groups across Schools, HL, HUIT, OVPR
- Maintained by OVPR

HARVARD.EDU 🕮 HARVARD UNIVERSITY

#### Research Data Management @Harvard



Vision

Data Lifecycle

Policies

Resources

Contacts

A reference guide with information and resources to help you manage your research data

#### DATA LIFECYCLE

#### Planning Data Management

How can I best manage my data throughout the lifecycle of my research to save time and money in the future?

- Data Management Plans (DMPs)
- · DMP requirements and tools
- · What research objects should be tracked and documented

#### **Data Acquisition** and Collection

How can I acquire data in an efficient and ethical way, and how can I ensure that my data is used appropriately?

- · Data Use Agreements (DUAs)
- · Institutional Review Boards (IRB and IACUC)
- · Subscription data

#### Storage, Security, and Analysis

What are my options for effectively organizing, storing, securing, computing, and analyzing my research data?

- Data security
- · Computing, research methods, data science, and viz support
- Electronic Lab Notebooks

#### Dissemination and Preservation

Why is it worthwhile to share my data? What do funders and iournals require? Can I get help with data curation?

- Data repositories
- Open Access
- · Data citation, FAIR principles
- Data disposal

#### LATEST NEWS



New Data Use Agreement Guidance for Harvard Researchers

January 4, 2019

As part of a larger initiative to improve transparency of research compliance processes, the University has introduced a tool for submission, review, and

management of Data Use Agreements (DUAs). In support of recently published guidance by the Office for the Vice Provost for Research on the management of DUAs, researchers sharing data can use the system to request a DUA review, correspond with the DUA reviewer, track the status of review, and manage active DUAs (including amendments and extensions

#### Read more

#### DATA SHARES

One Step Closer to the "Paper of the Future" March 13, 2019



Catherine Zucker is a fourth-year PhD student in astronomy at Harvard. Her work focuses on understanding the structure of our Milky Way Galaxy, through the combination of observations. numerical simulations, statistics, and data visualization. She is advised by Professors Alyssa Goodman and Douglas Finkbeiner. Alyssa Goodman is the Robert Wheeler Willson

## Working Groups to Foster Collaboration and Diverse Input

#### **RDM Support WG**

- Chairs: Ceilyn Boyd, Julie Goldman
- 8 members
- HL, HBS RCS, Chan Bioinformatics Core, HMS RDM, IQSS, OVPR

#### **Electronic Lab Notebooks WG**

- Chairs: Mercè Crosas, Alan Wolf, Mason Miranda
- 6 members
- OVPR, HUIT, HMS RITS, HL

#### **Data Use Agreements Operations WG**

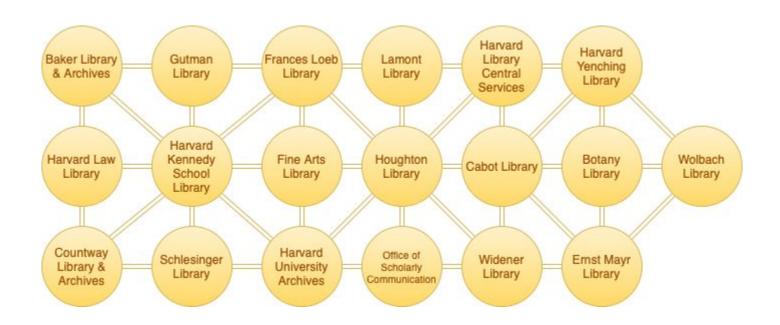
- Chairs: Jennifer Ponting, Alisa Jahns
- 16 members
- OVPR, OSP, HUIT, HMS-ORA, SPH-SPA, SEAS, FAS, GSE, HMS Health Care Policy

#### Data Safety and Security WG

- Chairs: Alisa Jahns, Rachel Talentino
- 9 members
- OVPR, HUIT, HMS, GSE, SPH, HMS Health Care Policy

## Support for data as a scholarly resource

Harvard Library network for research data management & digital scholarship services and resources



## FAIR Data as a scholarly resource

#### **FINDABLE**

Well-described using standards

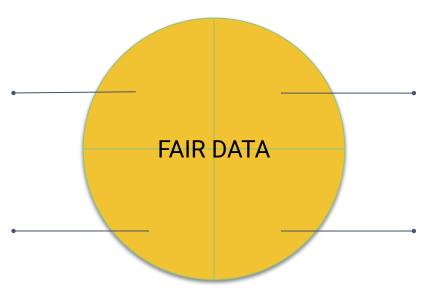
Discoverable via catalogs and aggregators

#### **ACCESSIBLE**

Persistent identifier

Citable

Reliable storage



#### **REUSABLE**

Clear terms of use

#### **INTEROPERABLE**

Standard and open formats

Digital preservation best practices



## Harvard Library provides support across the research data lifecycle

Individual libraries offer specialized data and digital scholarship services & resources

PLAN	COLLECT, GENERATE & STORE	CLEAN, ANALYZE & VISUALIZE	PUBLISH & SHARE	ARCHIVE & PRESERVE	REUSE
Plan for research data needs	Acquire, organize & store data	Process data for current use	Organize & share data in repository	Appraise & steward data	Discover & reuse data
DMPTool  Data Management Plans (DMPs  Consultations, best practices & referrals	Digitization services  Data acquisitions  Consultations & best practices	Data cleaning, processing & visualization services & support  Consultations, referrals & best practices	Dataverse data repository & DASH  Data curation services*  Consultations & referrals	Digital & data preservation services  Consultations, referrals & best practices	Data reference services Consultations & referrals

### **New Data Curation Services**

Collaborative services offered by IQSS and Harvard Library Anticipated launch: Late-fall 2019

#### **PUBLISH & SHARE**

## Organize & share data in repository

Dataverse data repository & DASH

Data curation services\*

Consultations, referrals & best practices

## HARVARD DATAVERSE REPOSITORY

- -FAIR data
- -Free data deposits
- -Self-curation
- -DOIs
- -Data citations

## CONSULTATION (FALL 2019)

- -Free consultation & assessment
- Fee-based extended consultation services

## DATA CURATION (FALL 2019)

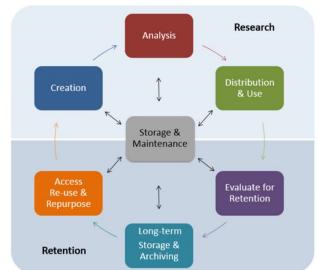
- -Dataverse setup & file ingest
- Ongoing dataverse administration & data curation
- -Custom data curation services

Biomedical research data management support: What's new in the Longwood Medical Area? About ▼ Best Practices ▼ Plan ▼ Store ▼ Share ▼ Resources Support

#### **Data Management**

Data Management is the process of providing the appropriate labeling, storage, and access for data at all stages of a research project. We recognize that best practices for each of these aspects of data management can and often do change over time, and are different for different stages in the data lifecycle.

Early and attentive management at each step of the data lifecycle will ensure the discoverability and longevity of your research.



Submit Questions and Feedback
Upcoming Trainings & News
Receive Data Management Updates

#### UPCOMING EVENTS

Webinar: What's New at ORCID?

2019 MAY **17** 

Webinar: Research Data Management and Workflows in Universities -Transforming Data to Knowledge

2019 MAY **21**  Imaging Solutions for Scientific & Scholarly Communication Lunchtime Seminars: Figures for Journals

More >

#### **FEATURED NEWS**



DMWG Featured in Nature Article: How to pick an electronic laboratory notebook

Countway Library>Research> Research Data Management

## Best practices for data management

#### Checklists for:

- Joining a new lab
- Starting a new project
- Completing a project\*
- Leaving HMS\*

\*checklists in development

#### RESOURCES **News & Events** Class Materials Data Management Newsletter Training Submission Form Research Data Management Onboarding Checklist Research Data Management Lifecycle Checklist Electronic Lab Notebook Matrix Data Repository Matrix Additional Resources Submit Questions and Feedback

Upcoming Trainings & News

Receive Data Management

Updates

#### HOME / RESOURCES /

#### Research Data Management Onboarding Checklist

This document serves as a general, research data management-focused guide to employee/trainee onboarding as they join a new lab or begin new projects. The document provides two checklists: Checklist for Joining a New Lab and Checklist for Starting or Joining a New Project. Follow one or both of these checklists as they apply to your situation. For more specific information, please see the Research Data Management Lifecycle Checklist provided by Countway Library. Internal and external links have been provided throughout the document as supplementary resources, including a glossary of terms. For additional assistance with terminology, visit Data Management Terminology.

Download the RDM Onboarding Checklist

#### RESEARCH DATA MANAGEMENT ONBOARDING CHECKLIST

Employee/Trainee onboarding to new labs and projects

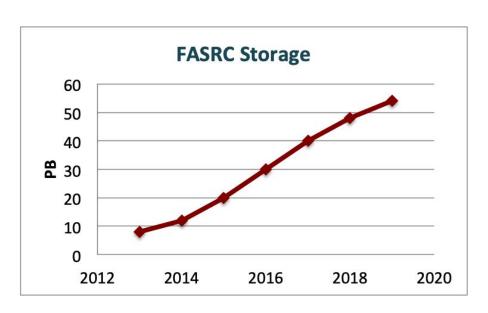
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#### CHECKLIST FOR JOINING A NEW LAB

PLANNING		
1) Review Laboratory, Department, and University Data Management Policies:		
	Policies and Procedures	
	<ul> <li>Contact the PI and department Research Administrator for laboratory and department-specific data management policies</li> </ul>	
	<ul> <li>HMS Research Data Management Guidelines</li> </ul>	Harvard Biomedical Data Management
	Harvard Retention and Maintenance of Research Records and Data Principles (these principles apply to the Longwood Medical Campus Schools – HMS, HSPH, HSDM)	Retention and Maintenance of Research Records and Data: Principles and FAQs
	<ul> <li>For questions about data retention, contact the Longwood Campus Archives and Records Management Program</li> </ul>	Longwood Campus Archives and Records Management

https://datamanagement.hms.harvard.edu/rdm-onboarding-checklist

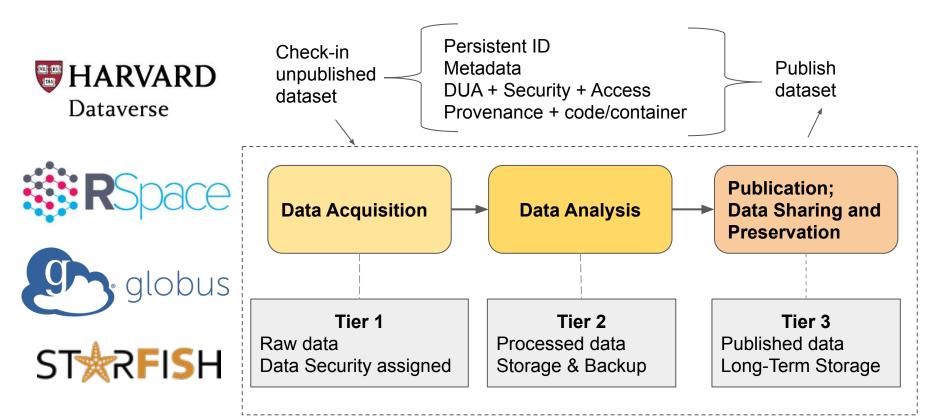
## Research Computing: data storage & security updates



#### Data Use Agreements - Level 3 or 4 Requirements

NIH dbGaP - 9
Center for Medicare/Medicaid Services (CMS) - 4
Private Company - 2
Nielsen Dataset / Chicago Booth - 4
Juvenile Diabetes Research Foundation
IPMUS (US Census data)
MA Center for Health Info & Analysis (CHIA)
CA Committee for Protection of Human Subjects
Center for Education Policy Research (CEPR)

### The Harvard Data Commons: A Vision



## **Panel Discussion**