APLU – AUU Workshop: Accelerating Public Access to Research Data

Translated -

Universities met with federal funding agencies to talk about issues, needs and a few successes.

Daureen Nesdill
Research Data Management Librarian
University of Utah

A little background on how librarians got into data management:

- 2003: NIH initiates requirement for the sharing of publications
  - Revolutionizing Science and Engineering Through Cyberinfrastructure (The Atkins Report)

- 2006: Dan Atkins visits universities
  - NSF Datanet grants to DataOne and Data Conservancy
  - Jim Mullins initiates data management initiative at Purdue
  - eScience Institute educates hundreds of academic libraries

- 2011 NSF requirement for DMPs
  - DMPTool developed
  - re3data developed
  - ELNs began to appear on campuses

- 2013 OSTP Holden Memo

AAU-APLU Public Access Working Group Report and Recommendations

November 29, 2017

Universities

- Invest in the infrastructure required to make data publicly accessible
- Shift the culture
- Develop a data services unit
- Recognize sharing of research outputs in tenure and promotion procedures

Federal agencies

- Fund the costs associated with making data widely available
- Provide consistent and clear policies, compliance guidelines, and definitions across agencies to minimize the burden on researchers and institutions
- Support the FAIR principles
- Understand that data should not be commercialized

Invitation to APLU – AUU Workshop:
Accelerating Public Access to Research Data
October 29-30, 2018

The purpose of the workshop is to provide a venue for learning, sharing, and planning to support research universities as they implement systems for public access to research data.

30 institutions were invited (2 from Canada)
3-5 representatives from different campus units attended
e.g. VPR, Library, IT, Legal, and Research Faculty
Less than 1/3 of institutions included data management librarian

Funded by NSF

Speakers

- Agencies
  NIH, DOE, NSF and DOD

- What's happening at:
  Duke University
  Utah State University
  Iowa State University

- Tools and Resources
  John Hopkins Library PASS- Public Access Submission System
  SPARC: JROST- Joint Roadmap for Open Science Tools
  National Academies of Science, Engineering & Medicine: Open Science by Design

Open Science
Open Science Tools
Open Science Framework

vs.

Security
Technology Transfer (patents, commercialization of research outputs)

Breakout Sessions and Discussions

Domain	Available Assets or Resources	Anticipated Challenges and Potential Solutions
Policies/Practices/Compliance		
Technology Platforms/Infrastructure		
Training and Rewarding Faculty		
Cost and Funding Model		
Other?		

High Priority Action	Required action steps	Stakeholders (leads, allies, buy-in required)
Need a vision for senior leadership		
Secure Funds		
Expand expectations across the entire campus.		
Creation of a roadmap for how to navigate the process		

We librarians got together prior to the workshop –

Plans and policies alone will not be sufficient and may possibly lead to a false sense of accomplishment. How can plans be made actionable and maintained across the university?

Agencies and universities need to work together in creating systems and structures that can support the work it will take to make research data publicly accessible and FAIR.

Roles and responsibilities over research data should be clearly defined and understood across the institution.

This discussion should not just STEM subjects. Social science, humanities and the arts need to be included.

…and we librarians got together after the workshop –

General consensus:

Librarians got a pat on the back for their great work – especially USU

Librarians were glad administrators were present because they learned a lot about our work and requirements.

University groups are potentially planning updates of existing policies.

An issue is how to best educate researchers, administrators and students about best practices for data management and sharing.

- and the most effective way of changing the culture.

Resources

-Atkins Report: [Revolutionizing Science and Engineering Through Cyberinfrastructure](#)

-Tool to write DMPs: [DMPTool](#)

-Database of data repositories: [re3data](#)

-Initial Report: [2017 AAU-APLU Public Access Working Group Report and Recommendations](#)

-ARL News: [AAU/APLU Public Access Working Group: Perspectives from Institution](#)

-ARL Policy Notes: [Report from AAU-APLU Workshop on Accelerating Access to Research Data](#)

-Academy of Sciences report: [Open Science by Design: Realizing a Vision for 21st Century Research](#)

-John Hopkins Library [PASS- Public Access Submission System](#)

-SPARC: [JROST- Joint Roadmap for Open Science Tools](#); SPARC [website](#)

-Tool from NSF: [Whole Tale](#)

-Tool from DOE: https://kbase.us

-Linking research outputs: [Scholix: A Framework for Scholarly Link eXchange](#) From [RD Alliance](#)

-Training: [The Carpentries](#) The Carpentries teach foundational coding, and data science skills to researchers worldwide.

-New Resource: [Data Curation Network](#) is a Sloan-funded project aiming to develop a "network of expertise" model for U.S. academic libraries with data repositories to collectively provide data curation services to support digital research data deposit into repositories for open access and reuse.

Establishing ISU Data Sharing Task Force (DSTF)

- ## Co-sponsorship

  VPR (Sarah Nusser), Dean of Libraries (Beth McNeil), CIO (Kristen Constant)

- ## Desired outcomes

  - Embrace "open" modes of scholarly practice

  - Increase rigor and transparency of research

  - Support researchers and the institution in meeting sponsor requirements for sharing data

DSTF Charge

- **Big picture** – Consider the set of actions and guidance needed to support researchers and the institution in providing appropriate public access to research data

- **Short term** – Develop initial guidance, procedures, systems, and testing to pilot our repository *DataShare* and other elements of a data sharing system

- **Long term** – Develop a draft plan identifying the resources needing to be developed to support requirements to share research data publicly

DSTF Composition

- **Co-chairs**: 3 leadership reps

  James Reecy (Assoc. VPR), Curtis Brundy (Director, Libraries), Mike Lohrbach (Director, IT Services)

- **Faculty (Research Practice)**: 5 from diverse disciplines and practices

  Carolyn Lawrence-Dill (chair of the committee, assoc. prof GDCB)

  Joshua Rosenbloom (chair of Economics)

  Volker Hegelhiemer (chair, English)

  Richard Lesar (prof. Materials Sci and Eng)

  Philip Dixon (prof of Statistics)

- **Staff technical expertise**: 9 (library, IT, legal, etc.)

  o Policy, research compliance, sponsored programs, data licensing

  Barbara Biederman (University Council)

  o Info systems, repository support

DSTF Subcommittees (interconnected)

- **Policy**: research data, repository

- **Compliance**: awareness and prevention, evaluating appropriateness of sharing, workflow and monitoring

- **Systems**: repository set-up, tracking data to be shared, connection to sponsored awards

- **Research practice**: supporting study design in anticipation of data sharing, workflow tools and documenting data for public use, incentives and credit, training

DSTF Phase 1 progress

- Map for data sharing process (**future workflow**)

- Draft guidance (**future policy**) for publicly sharing data
  https://instr.iastate.libguides.com/datashare/

- Establishing and testing *DataShare* **repository** and process (Curtis Brundy)
  https://iastate.figshare.com/

- NSF EAGER-funded survey to establish baseline and track changes in **campus practice and perceptions** (Joshua Rosenbloom)

DSTF Phase 2 challenges

- Researcher practice
  - **Supporting "Ideation" step** as foundation for ensuring rigor in data and documentation
  - **Training and tools** for open scholarship

    (Open Science in a Box; Adina Howe)
  - Evaluating data with **access restrictions**
- Incentives – **P&T policy, credit** (data, collaboration)
- Team – developing a more **integrated vision**
- Visibility – **permeating campus and research culture**
- Proposed **plan** – going beyond projects and pilots

Data Lifecycle

Proposal Development

Project Awarded

Publication and Sharing Research Data

Science Rigor
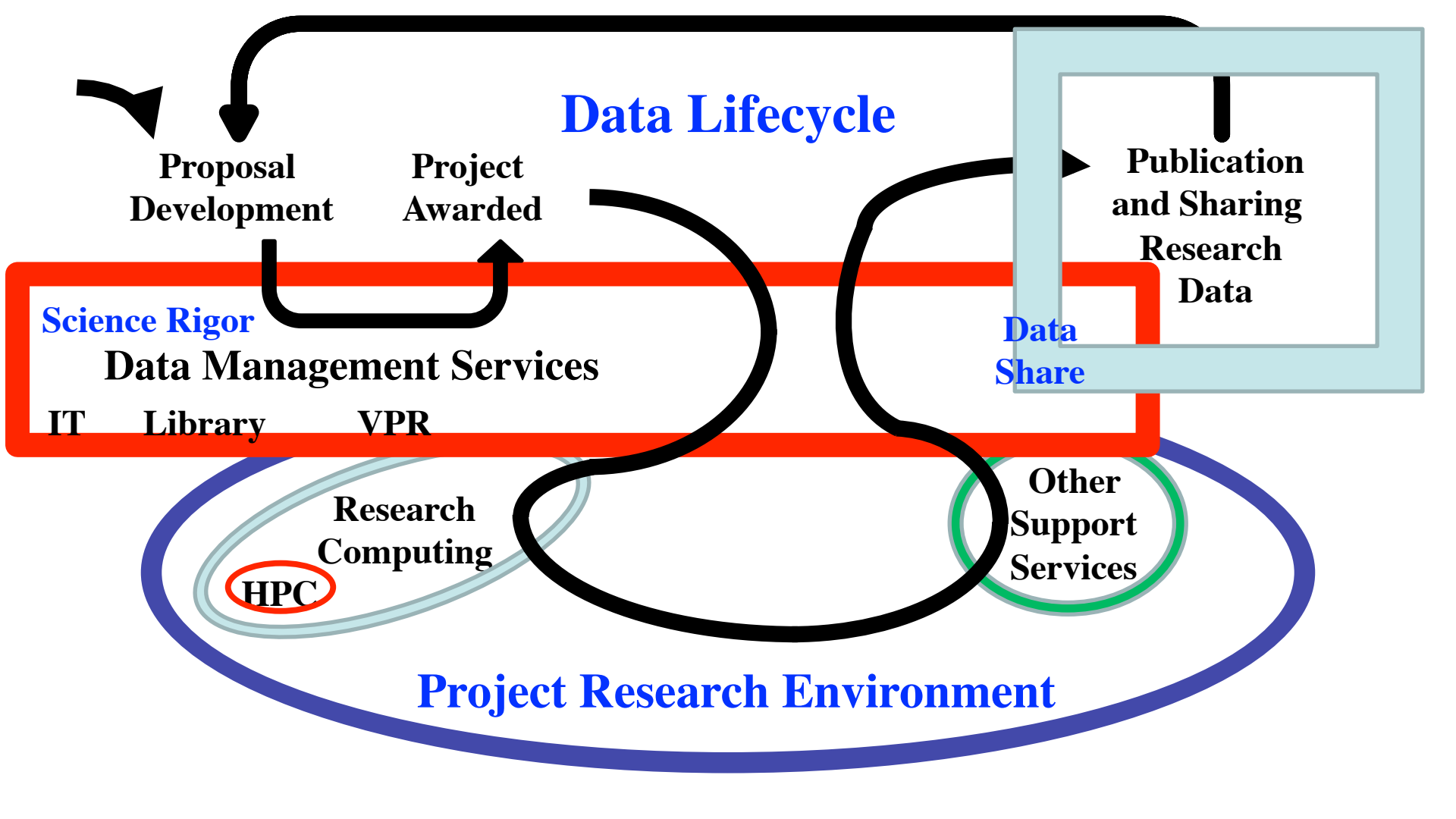
Data Management Services

Data Share

IT   Library   VPR

Research Computing

HPC

Other Support Services

Project Research Environment

Culture

- Training – **Need ways to get faculty and students trained**
- Citable datasets – **DOIs, etc.**
- Publishing – **Code, paper, data all bundled: eLife, JOSS, etc.**
- Policy – **P&T, credit**
- Faculty Senate – **need examples**
- Departmental Culture – **buy-in from departmental mentors is critical**