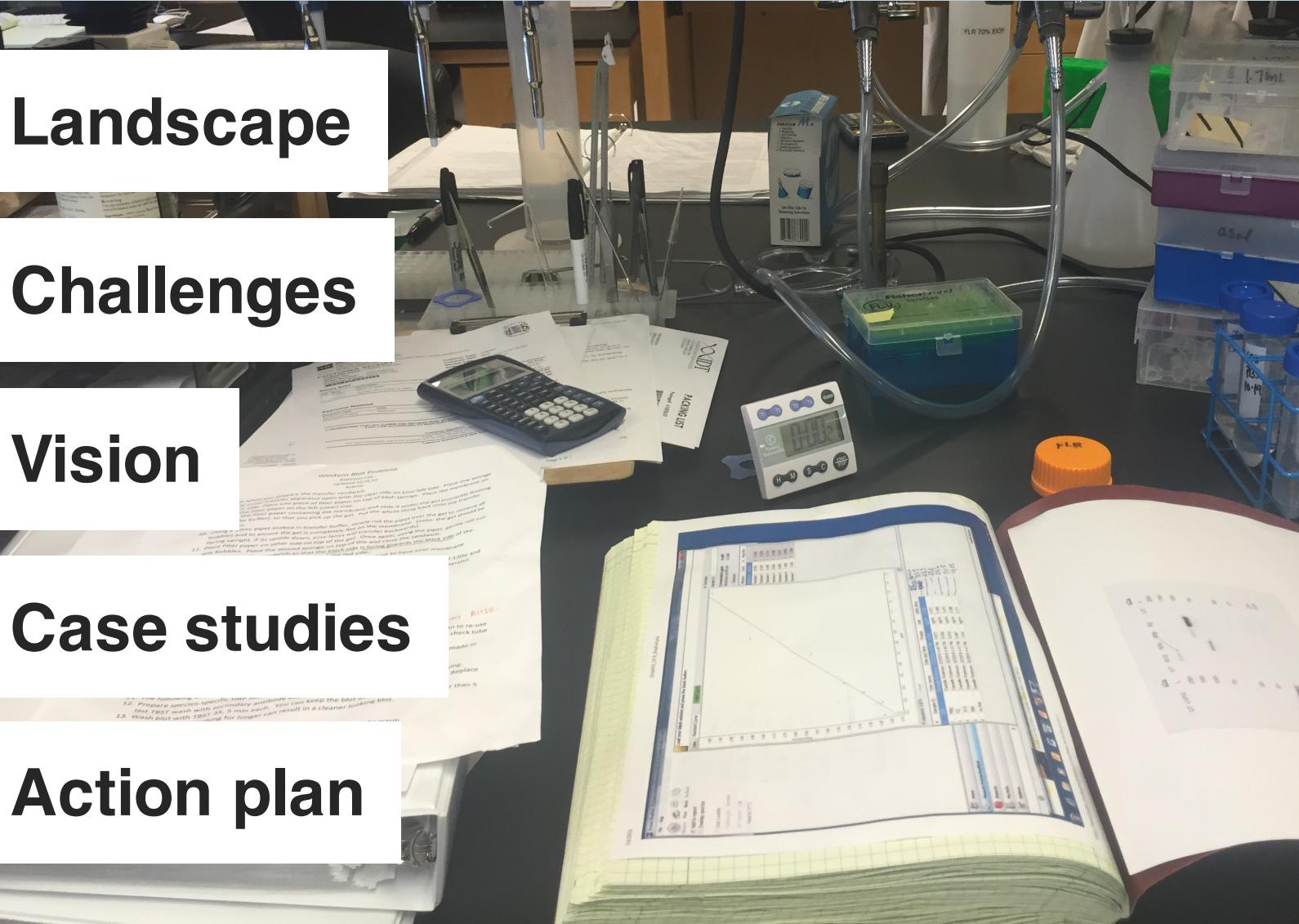


Building Data-Centric Relationships with Research Scientists

Research liaison & data management services to a research community at an academic health sciences university



Building Data-Centric Relationships with Research Scientists



Landscape: Science changes quickly, Libraries respond with support

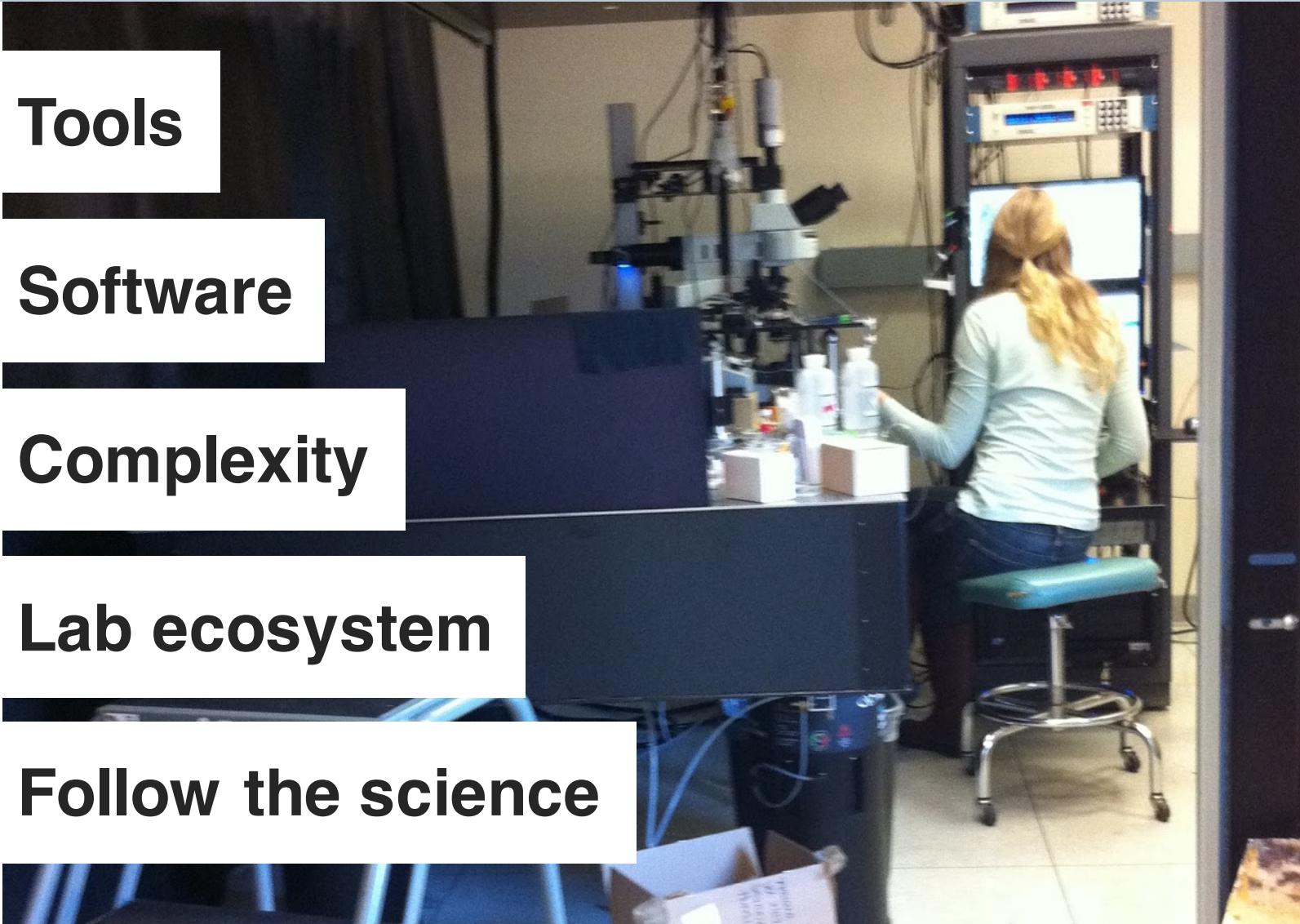
Tools

Software

Complexity

Lab ecosystem

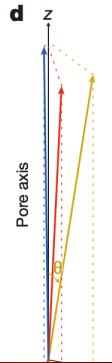
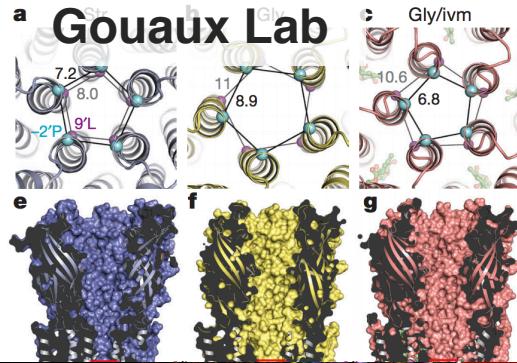
Follow the science



Landscape: Library liaison and data management services are evolving

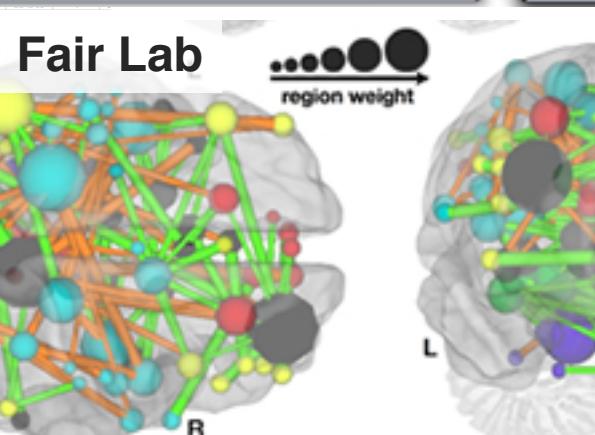
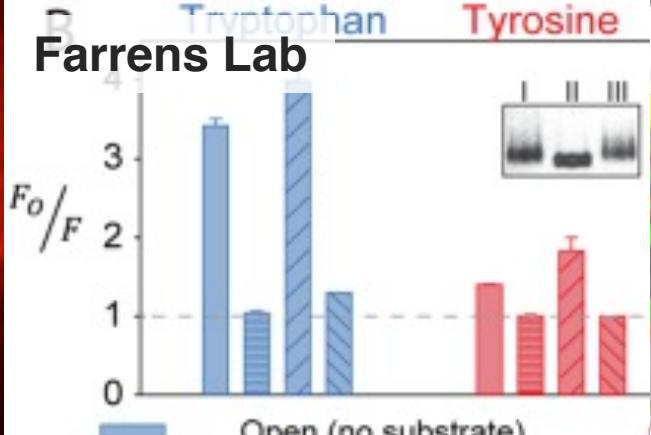
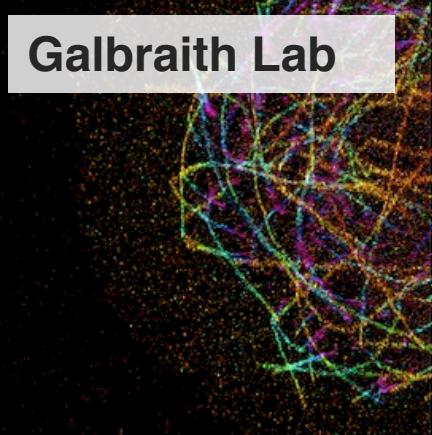
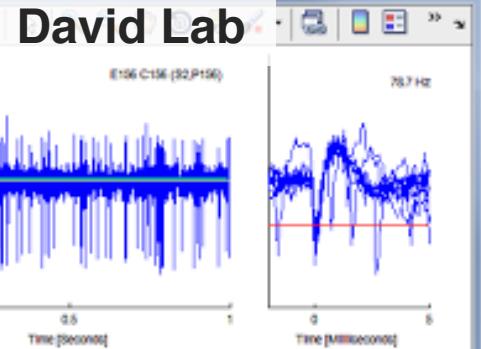
- Understand and anticipate needs
(UNC Provost's Task Force Report, 2012; Carlson et al., 2011)
- Collaborating on policies
(Dyke & Hubbard, 2011; Briney et al., 2015)
- Educational programs and research data management courses/services
(Whitmire 2014, 2015; Rolando et al., 2015; Carlson et al. 2013)
- Skill and tool instructional support
(Iwema @ Pitt; Wright @ UW)

Landscape: OHSU researchers have diverse data support needs



Barr-Gillespie Lab

Gene ID	Gene Name	Ontology	Deafness/mutant gene?	P5 BUN quantified in name	P5 BUN fraction
1302.1774.2	ENSMUSP00 Family [Actin, gamma, cytoplasmic]	ActG1,ACTA1,ACTA2,Actin cytoskeleton	Yes	4	7.63E-0
1239.2379.2	ENSMUSP00 Family [Actin, gamma, cytoplasmic]	PLXN1,PLXN2,Actin cytoskeleton	Yes	4	5.86E-0
1111	ENSMUSP00 Facin homolog 2, actin-binding protein, isoform N	Actin cytoskeleton	Yes	4	1.02E-0
88.92.1548.188.92.1548.2	ENSMUSP00 Family [Tubulin, beta 4B class IVb]	TUBB4B;TUBB1;TUBB2;Microtubule	Yes	4	1.19E-0
2296	ENSMUSP00 Histone cluster 4, H2az	HIST1H4H,Nucleus	4	4.77E-01	
1400.1759.2	ENSMUSP00 Histone cluster 1, H2ah	HIST1H2AH(H2af)H2ah,Nucleus	4	5.97E-01	
890	ENSMUSP00 Histone cluster 1, H2bh	ANXA1,Actin filament,Membrane	4	6.87E-01	
384.2157.23	ENSMUSP00 Family [Histone cluster 1, H2bg]	HIST1H2BZD,HIST1H2B,Nucleus	4	4.42E-01	
1753.2165.2	ENSMUSP00 Family [Tubulin, alpha 1B]	TUBA1B;TUBA1A;TUB,Microtubule	4	1.05E-01	
443.549.686	ENSMUSP00 Family [Heat shock protein 90 alpha (cytosolic)]	HSP90AA1;HSP90AA1,Chaperone	4	1.88E-01	
365.213.22	ENSMUSP00 Family [Histone, histone, family 3A]	HIST3A,H3F3B,HIST1H3A,Nucleus	3	1.86E-01	
63.153.63	ENSMUSP00 Family [RanBP1]	RDX1;RANBP1,Actin cytoskeleton	Yes	4	1.02E-01
2680	ENSMUSP00 Glyceraldehyde-3-phosphate dehydrogenase	GAPDH,Energy	4	4.68E-01	
346.908.220	ENSMUSP00 Family [Heat shock protein 8]	HSP8;HSP91A;HSP91,Chaperone	4	2.17E-01	
2244	ENSMUSP00 Glutathione peroxidase	FMO3,Antioxidant	4	3.68E-01	
1441	ENSMUSP00 Glutathione peroxidase 2	FMO3,Antioxidant	4	1.14E-01	
1442	ENSMUSP00 Glutathione peroxidase 2	FMO3,Antioxidant	4	7.12E-01	
923.2104.28	ENSMUSP00 Xif Family [GM132.2+GM128.1 (GM132)]	XIRP2;H3B9B16(B2B) Actin cytoskeleton	Yes	4	8.33E-01
813	ENSMUSP00 ATP synthase, H ⁺ -transporting mitochondrial	ATPS8,Energy	4	5.09E-01	
817	ENSMUSP00 ATP synthase, H ⁺ -transporting, mitochondrial	ATPS1,Energy	3	2.20E-01	
2510	ENSMUSP00 ATP synthase, H ⁺ -transporting, mitochondrial	ATPS1,Energy	4	6.98E-01	
668.687.151	ENSMUSP00 Chondroitin intracellular channel 5	CUCS,Actin cytoskeleton	Yes	4	1.83E-01
190.2084.21	ENSMUSP00 Cholinesterase, alpha non-neuron	ENO1;ENO2;ENO3,Energy	4	1.93E-01	
1707	ENSMUSP00 Phosphatidylethanolamine binding protein	PEBP1,Lipid synthesis	4	2.00E-01	
2681	ENSMUSP00 Phosphatidylethanolamine binding protein	PEBP1,Lipid synthesis	4	4.11E-01	
1882.138.1	ENSMUSP00 Lactate dehydrogenase	LDB,Energy	4	4.11E-01	
1182	ENSMUSP00 Lactate dehydrogenase	LDB,Energy	4	4.11E-01	
1182.138.1	ENSMUSP00 Lactate dehydrogenase	LDB,Energy	4	4.11E-01	
372.1204	ENSMUSP00 Aldolase A, fructose-bisphosphate	ALDOA,Energy	4	6.80E-01	
413	ENSMUSP00 Malate dehydrogenase 2, NAD (mitochondrion)	MDH2,Energy	3	4.08E-01	



Knight Cancer Center, Vollum Institute, Casey Eye institute, Jungers Center for Neuroscience Research, OCSSB & OHSU/FEI Multiscale Microscopy Core, the new Center for Radio Chemistry Research, and many core facilities

Landscape: What is the role of the Basic Science Liaison?

“An engaged liaison seeks to enhance scholar productivity, to empower learners, and to participate in the entire lifecycle of the research, teaching, and learning process.”

Landscape: What is the role of the Basic Science Liaison?

“An engaged liaison seeks to enhance scholar productivity, to empower learners, and to participate in the entire lifecycle of the research, teaching, and learning process.”

- Research data management standards
- Archival file formats, metadata
- Improved personnel transitions
- Train legion of RDM pros

Landscape: What is the role of the Basic Science Liaison?

“An engaged liaison seeks to enhance scholar productivity, to **empower learners**, and to participate in the entire lifecycle of the research, teaching, and learning process.”

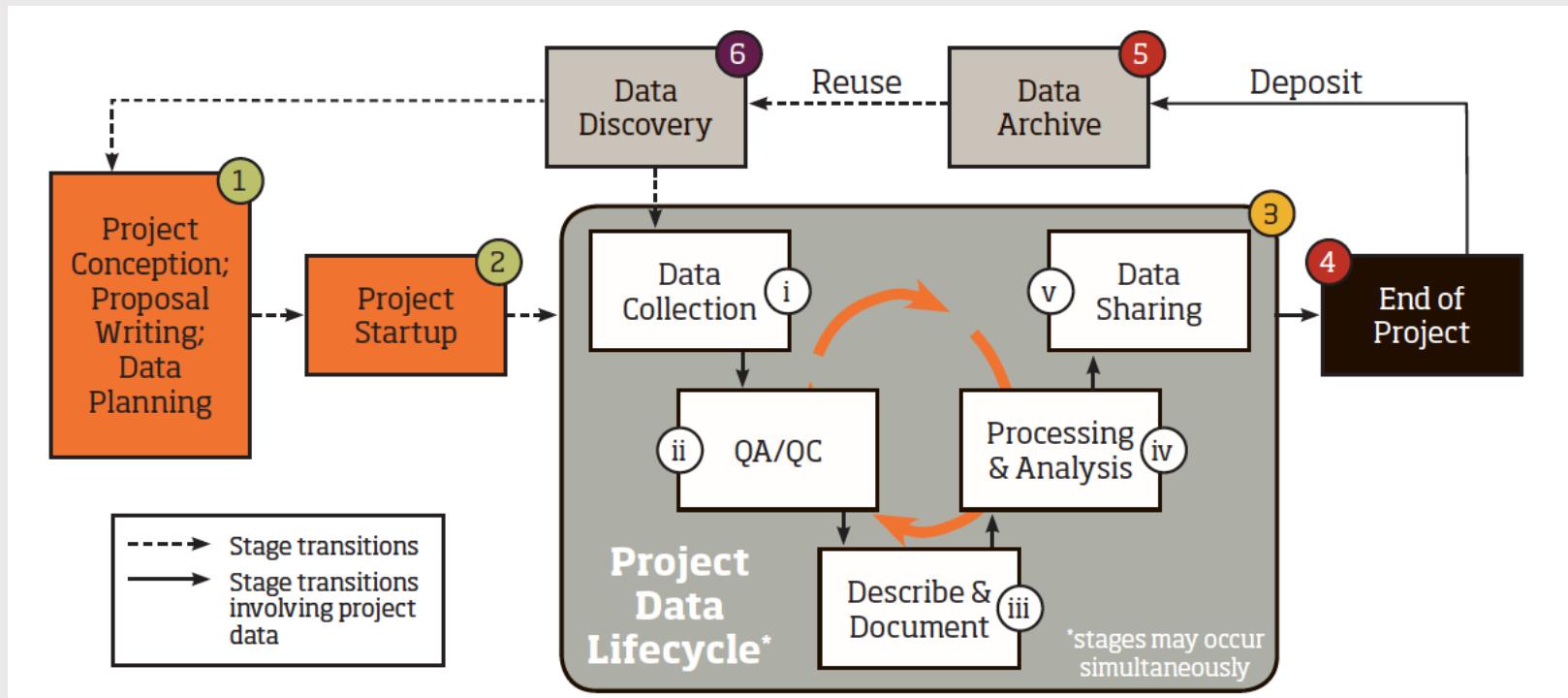
- Skills training to use new tools
- Reproducible, interactive research reports
- Digital literacy, reproducibility, & empowerment!

Landscape: What is the role of the Basic Science Liaison?

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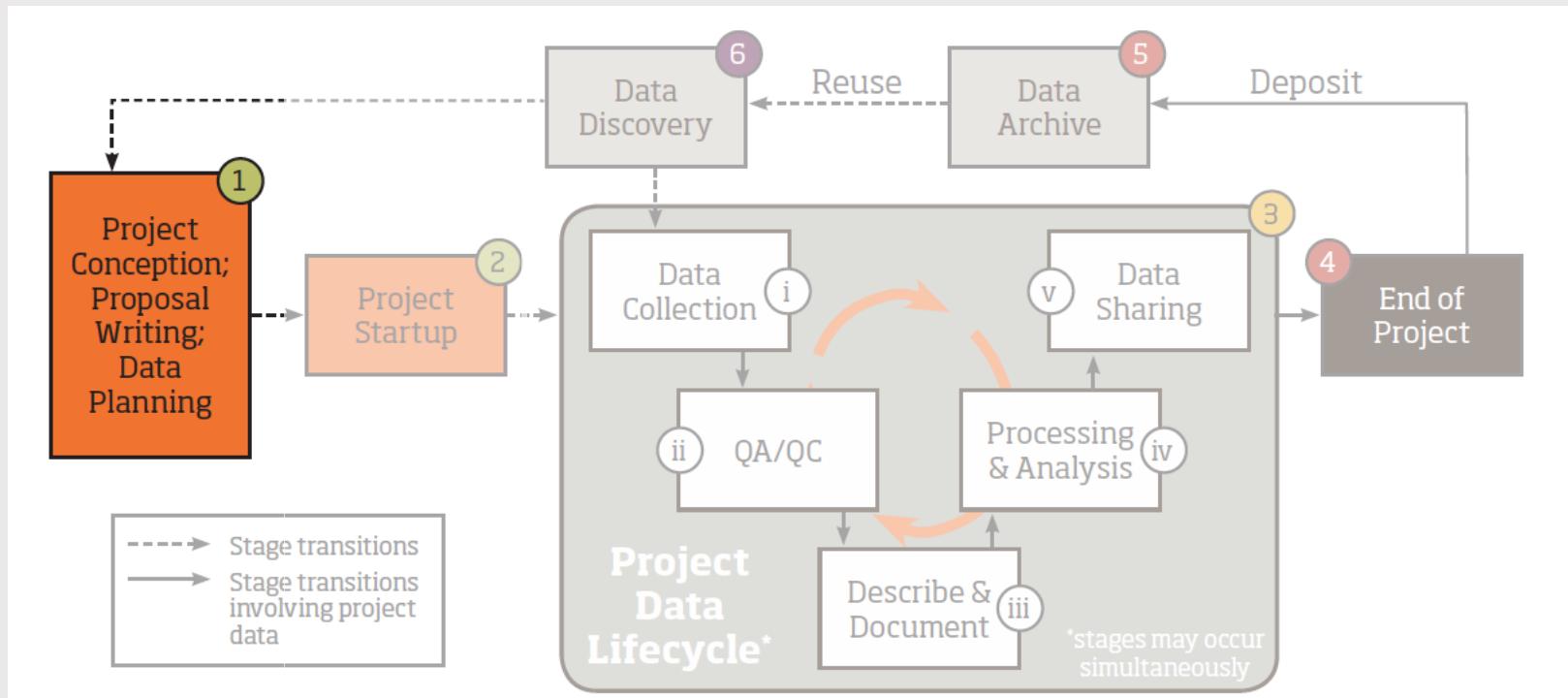
- Part of teaching/learning continuum
- Library experts facilitate, develop, deliver, assess
- Deep engagement with research is natural fit

Landscape: Library Liaison in the research and data lifecycle at OHSU



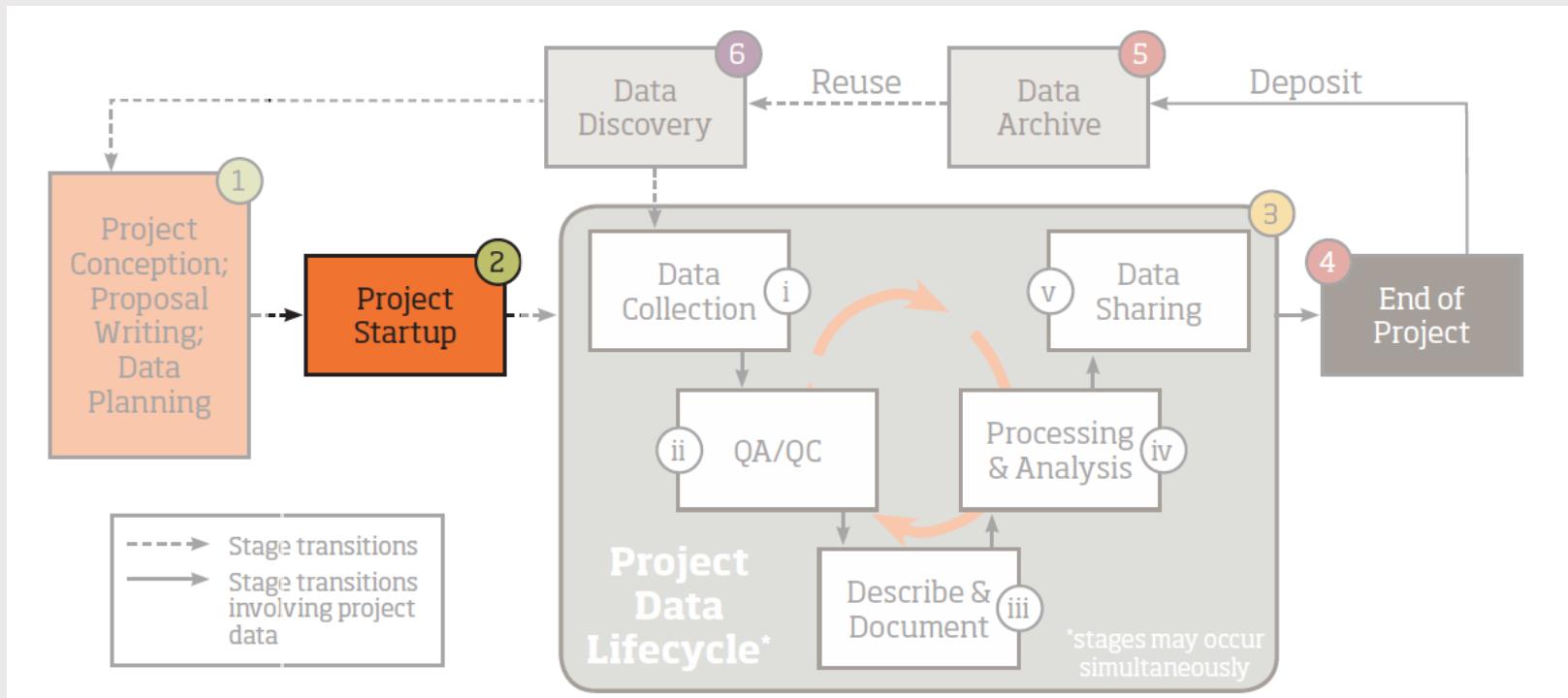
Role for Liaison contact and Research Data Management best practices support at each step

Landscape: Library Liaison in the research and data lifecycle at OHSU



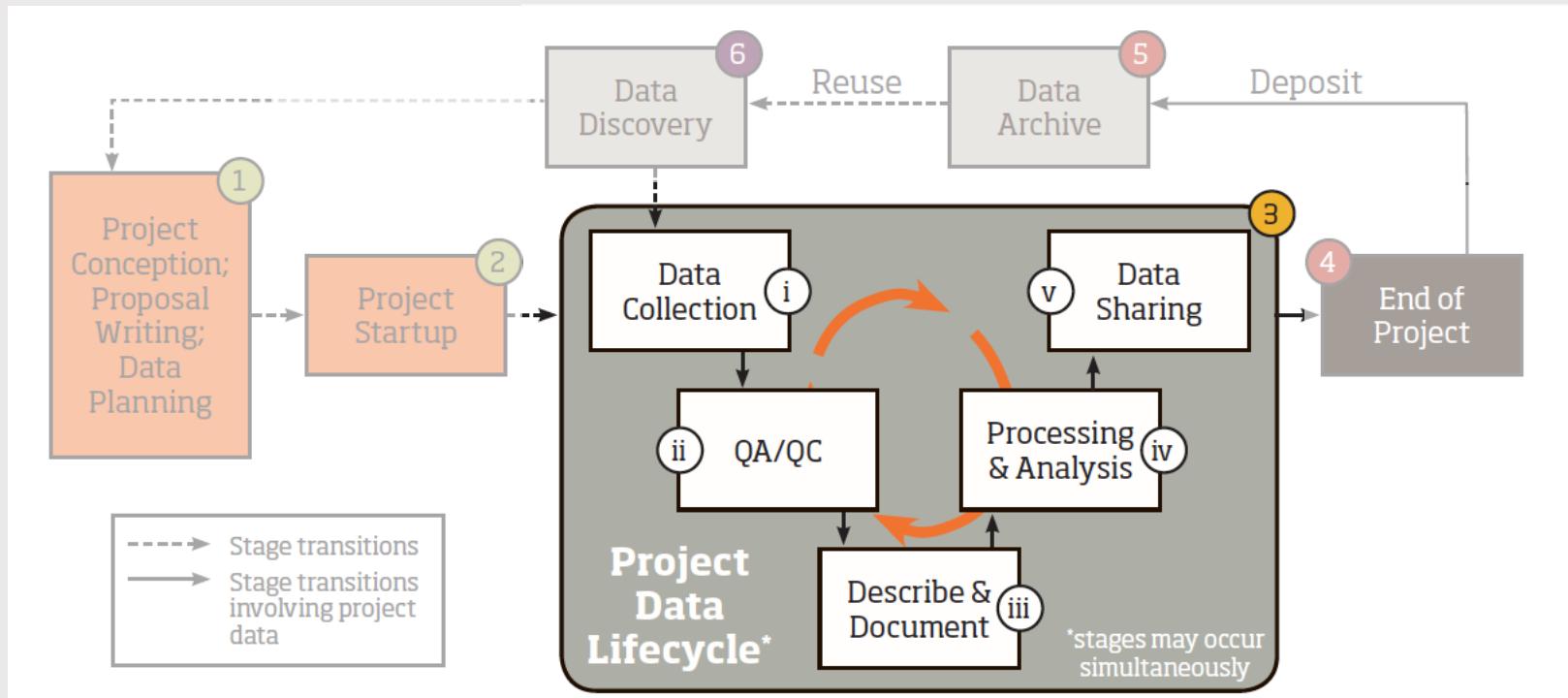
Formal and informal project conception – relationship is key

Landscape: Library Liaison in the research and data lifecycle at OHSU



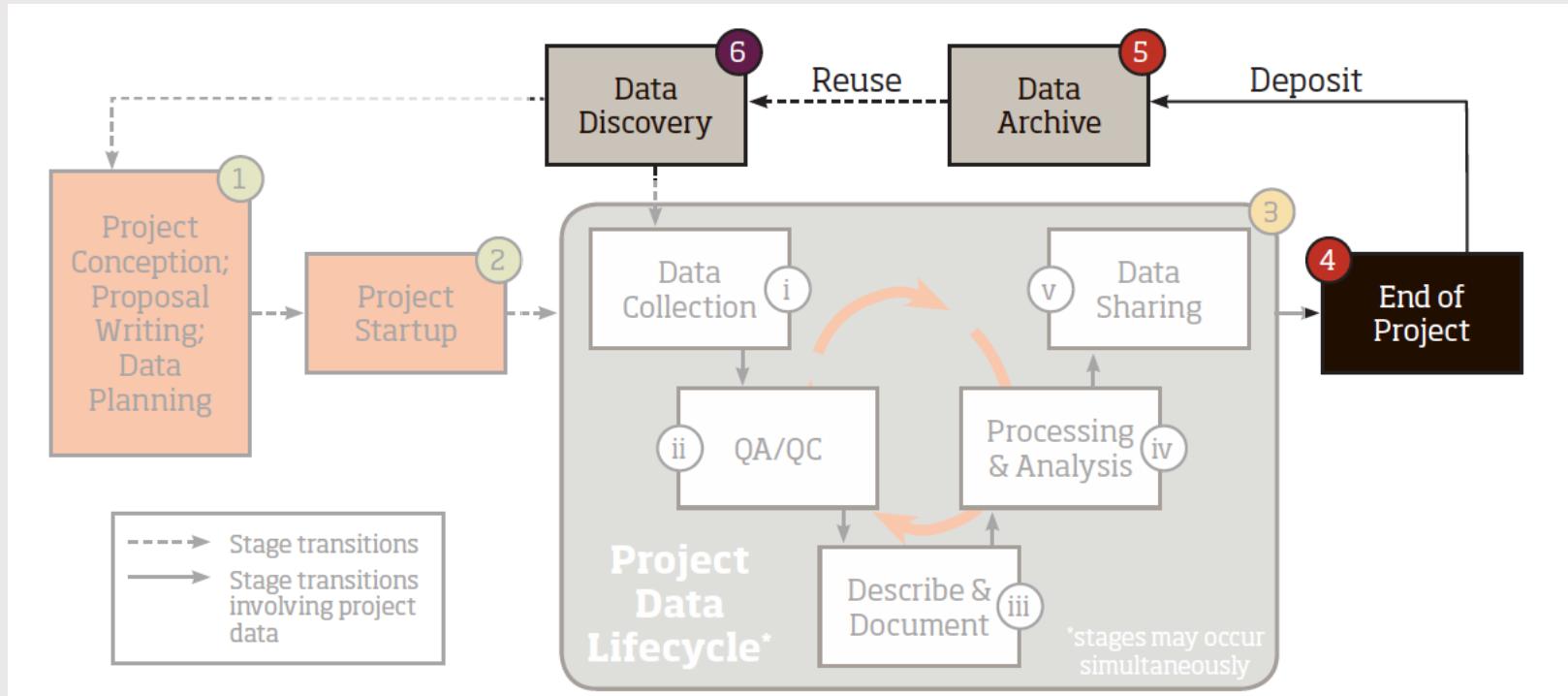
That's why they call it RE-search

Landscape: Library Liaison in the research and data lifecycle at OHSU



Connection to best practices & resources throughout data lifecycle

Landscape: Library Liaison in the Research and Data Lifecycle at OHSU



What is the “End” you speak of?

Challenges: Making data management services effective & wide reaching

Relationship Building

- Liaison model creates a point of contact
- Scientific domain knowledge
- Understand and anticipate needs
- Library domain knowledge

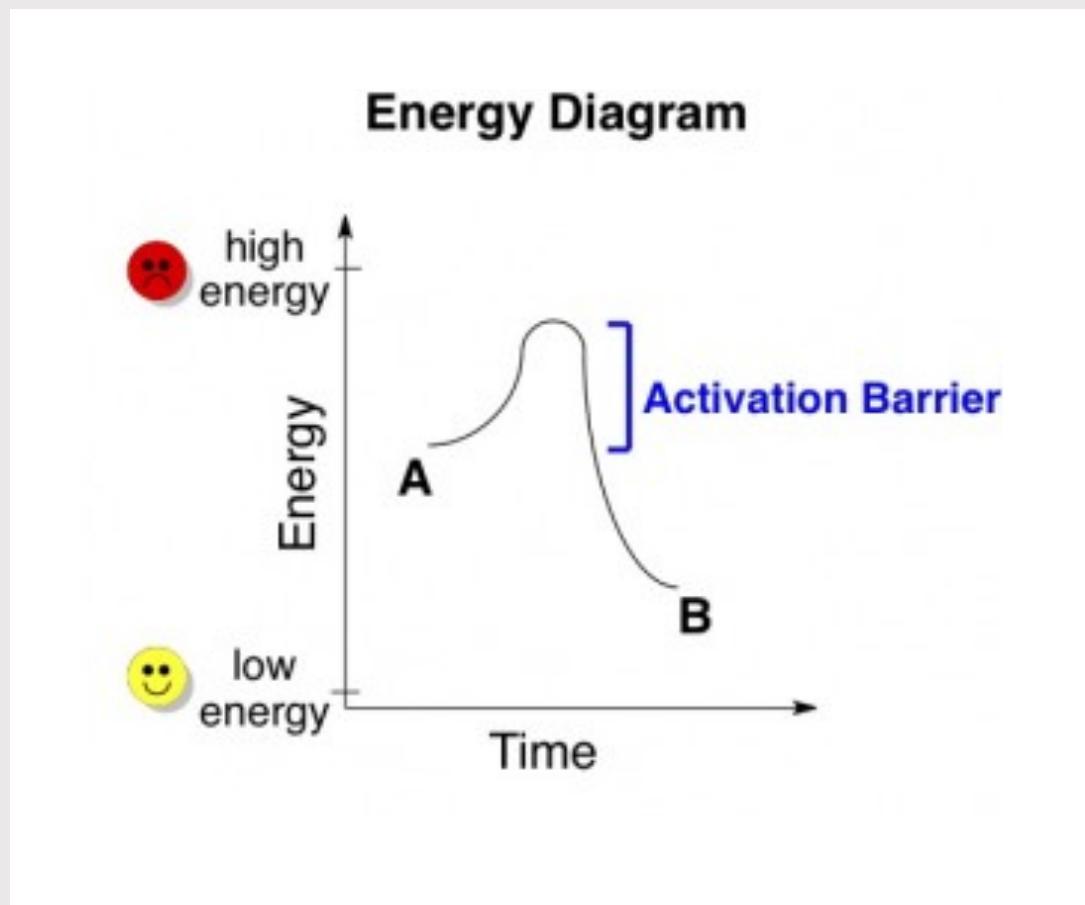
Vision: Basic Science Liaison & Research Data Management at OHSU

Position OHSU Library
to anticipate and
respond nimbly to
needs of researchers
at all levels



Vision: Basic Science Liaison & Research Data Management at OHSU

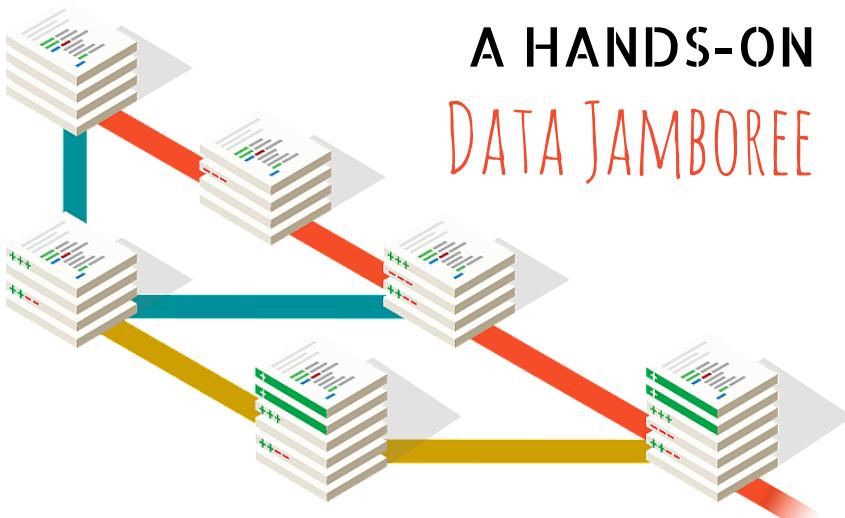
Remove the barrier to best practices



Case study: Workshops as point of contact for OHSU researchers

OHSU DATA JAMBOREE, THE OHSU LIBRARY &  PRESENT:

A HANDS-ON DATA JAMBOREE



AN INTRODUCTION TO
COLLABORATION WITH

GIT & GITHUB



INSTRUCTOR: TED HART, PHD, SILICON VALLEY DATA SCIENTIST

Friday, March 4, 2:30 - 5:00 CLSB 3A001
Food & Beverages Provided
RSVP: champieu@ohsu.edu

Case study: Workshops as point of contact for OHSU researchers

“As a coding newbie, the workshop was very helpful and well organized - I felt comfortable learning a new skill”

-PhD Student

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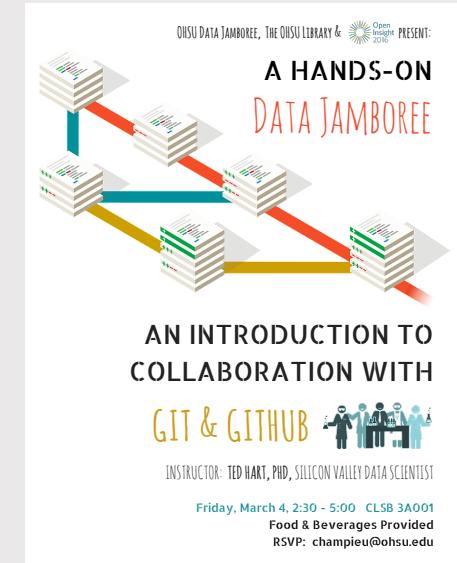
“I’ve been meaning to do this”

-Faculty

Case study: Workshops as point of contact for OHSU researchers

Needs identified through workshop:

- Basic skills
 - Command line
 - Programming literacy
- Advanced skills
 - R Markdown/Knitr & iPython notebook
 - Software & Data Carpentry
- Immediately actionable, timely
- All levels of researchers
- Small time investment for participants



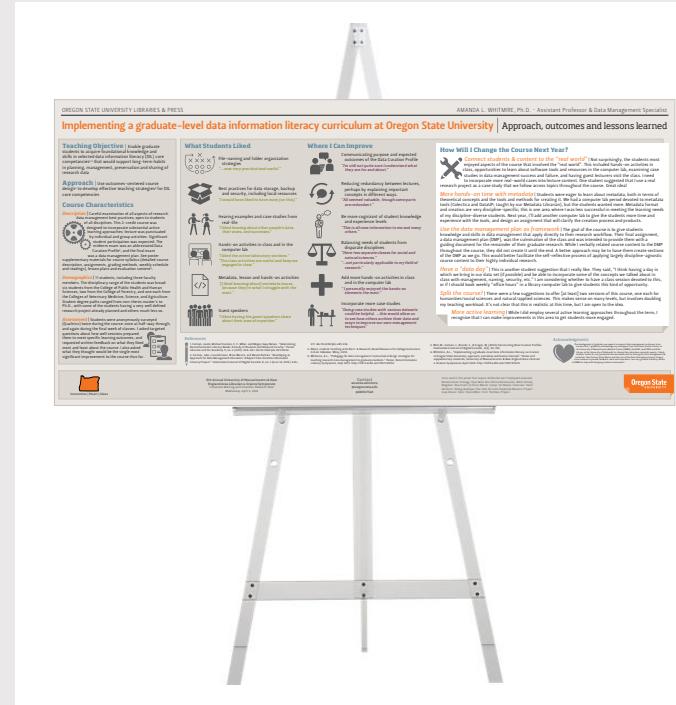
Case study: Formalized research data management course at OSU

Graduate credit-bearing course (Whitmire 2014, 2015)

- Outcomes-centered design
- DIL core competencies
- Long-term behavioral change

Develop OHSU curriculum

- Specific to our researchers
- Relevant to their data
- Supplement with skill-building workshops
- Develop “deep, transferrable understanding”
(Carlson et al. 2013)



OHSU Library Strategic Plan: Priorities informed by stakeholders



OHSU Library 2016–2021 Strategic Plan

I. Introduction

The OHSU Library 2016–2021 Strategic Plan comes at a time of unprecedented transformation in information technologies, culture, and practices. As we seek to inspire scholarship, discovery, and collaboration in the face of such rapid change, the Library must be bold in leveraging innovative tools and service models to meet new challenges faced by our users. The Library Strategic Plan articulates the scope and scale of these ambitions, setting priority objectives that will guide the development of services and the allocation of resources over the next five years.

Developed through the active participation of Library staff and stakeholders representing students, educators, researchers, clinicians, administrators, and community partners, the Plan aspires to advance the impact and integration of the Library in campus pursuits, while remaining true to its core mission as a trusted and neutral provider of information services. Its alignment with the goals and strategies expressed in OHSU's Vision 2020 ensure that Library partnerships across campuses will drive the continued success of OHSU as an innovative leader in research, education, and healthcare.

II. Library Mission, Vision, and Values

Mission

The OHSU Library advances the effective, efficient, and ethical use of information in support of education, research, and healthcare.

Vision

In service of our mission, the Library will:

- Cultivate a physical and virtual environment that fosters discovery and collaboration.
- Teach skills and develop tools to navigate, interpret, and analyze the information landscape.

Action Plan: Basic Science Liaison & Research Data Management at OHSU

1. Relationship building

- Connect, collaborate to understand & meet stakeholder needs

2. Research data management services

- Data literacy across research lifecycle

3. Educational Programming

- Develop, deliver, evaluate outcomes

Action Plan: Basic Science Liaison & Research Data Management at OHSU

1. Relationship building

- Immediately leverage knowledge of researcher needs
 - Multi-level PhD program outreach (faculty, students)
 - Courses, workshops & skill clinics (all levels)
 - Data management support for labs, grants (all levels)
- Library Liaison position on committees
 - Voice perspective, promote library services (faculty)
- Collaborate with Library Liaisons and Library faculty
 - Workshop & develop outreach, assessment mechanisms

Action Plan: Basic Science Liaison & Research Data Management at OHSU

1. Relationship building

- Connect, collaborate to understand & meet stakeholder needs

2. Research data management services

- Data literacy across research lifecycle

3. Educational Programming

- Develop, deliver, evaluate outcomes

Action Plan: Basic Science Liaison & Research Data Management at OHSU

2. Research data management services

- Highlight research data management best practices
 - Collaboration & innovation (all levels)
 - Efficient project transitions (faculty)
 - Improve current workflow, boost productivity (students)
- Develop credit-bearing nanocourse (students)
 - Develop, deliver, assess
- Initiate assessment “State of the Data” at OHSU
 - Collaborate with library, faculty, core labs, institutes

Action Plan: Basic Science Liaison & Research Data Management at OHSU

1. Relationship building

- Connect, collaborate to understand & meet stakeholder needs

2. Research data management services

- Data literacy across research lifecycle

3. Educational Programming

- Develop, deliver, evaluate outcomes

Action Plan: Basic Science Liaison & Research Data Management at OHSU

3. Educational Programming

- Immediate follow-up Open Insight Series
Basic skills & advanced skills support
- Development of Research Data Management course
Specific to needs/data of OHSU researchers
- Graduate training is changing/evolving!
New opportunities for Library involvement in graduate course development, instruction, assessment

Building Data-Centric Relationships with Researchers at OHSU

“An engaged liaison seeks to enhance scholar productivity, to empower learners, and to participate in the entire lifecycle of the research, teaching, and learning process.”

Citations

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Figshare.<https://dx.doi.org/10.6084/m9.figshare.774628.v2>
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- 10.Whitmire, A. L. (2015). Implementing a Graduate-Level Research Data Management Course: Approach, Outcomes, and Lessons Learned. *Journal of Librarianship and Scholarly Communication*, 3(2), eP1246. doi:10.7710/2162-3309.1246

Questions?

Thank you to Stephanie Kerns and the search committee members!

Email: robidani@ohsu.edu

Special thanks to...

Heather Coates, MLS MS (IUPUI)

Amanda Whitmire, PhD (Stanford)

Carrie Iwema, MLS PhD (Pitt)

Stephanie Wright, MLS (Mozilla Labs, formerly UW)

...for great conversations that have helped me to better understand the role of data management librarianship in the library landscape.

Connect, collaborate to understand & meet
stakeholder needs

Action Plan: Basic Science Liaison & Research Data Management at OHSU

Research data management services

Values: Collaboration, Innovation, Diversity, Research, Knowledge, and Integrity

Goals: Promote data literacy across research lifecycle via instruction, educational materials, and advancement of best practices (2.3)

Assist navigation of diverse policies and reqs related to data and other scholarly products (2.5)

Action Plan: Basic Science Liaison & Research Data Management at OHSU

Educational Programming

Values: Collaboration, Innovation, Diversity, Research,
Knowledge, Integrity

- | | |
|---|---|
| Goals:
formal

and

impact | Engage in development, delivery, & evaluation of
education programs (3)

Leverage relationships to bring new paradigms
practices directly into curricula (3.2)

Develop formal mechanisms to evaluate quality,
of Library educational programs (3.6) |
|---|---|

Action Plan: Basic Science Liaison & Research Data Management at OHSU

Educational Programming

Sometimes researchers don't know what they need
Or they know, but don't ask for it

Build relationships

Understand research landscape

Anticipate needs

respond with timely
educational programming

Nimbly

Landscape: Research data management & liaison services

Liaison Librarian

Point of contact support

Connecting clients with resources

Providing instructional support

Research Data Management

Data literacy training

Data management plans

Connect researchers with tools to meet funder's requests

Collaborate at institutional level on policies that affect data sharing and management

in terms of junior personelle – we attract fantastic students and postdocs - and they're all going to come here with different habits, skills, and RDM sytems.

-In any given month, a lab could have a rotation student leave, a postdoc start, an undergrad volunteer continue their project – this is how research gets done.

They're here to work with our amazing faculty, but I know firsthand that RDM strategies are incredibly variable acorss campus.

And this diversity of approaches has to do with Faculty personal history, knowelgdes of resources, and BP, as well as their specific funding and funder requirements.

Vision: Basic Science Liaison & Research Data Management at OHSU

Position OHSU Library to **anticipate and respond nimbly** to needs of researchers at all levels

- Build relationships
- Educational programming & skill building clinics
- Research data management instruction and consulting
- Library voice in institutional policy
- Scholarship and collaboration