PLANTING THE SEEDS FOR DATA LITERACY:
LESSONS LEARNED FROM A STUDENT CENTERED EDUCATION PROGRAM

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What knowledge and skills with data will graduate students need to be successful?

What role could librarians play in teaching these skills?

5 Case Studies:
http://docs.lib.purdue.edu/dilcs/
Pitching the Data Lit. Program

- Students need to be able to manage and curate data
- These skills are not currently being taught
- Acquiring such skills would be a competitive advantage
- An opportunity to learn what is needed

Dr. Karen Plaut, Associate Dean of Research
PILOT PROGRAM

Characteristics

- Semester long
- Ten students max
- Application Process
- Approval of Advisor
- Stipends rather than credit

Image credit: Thomas Favre-Bulle “Classroom” https://www.flickr.com/photos/lnx/6257130/sizes/o/
ASSUMPTIONS

We believed that our program should

• Center on the student’s role as data producer and manager
• Have students use their own data
• Use active learning and peer networks
• Flexible, responsive and student-driven
SESSION TOPICS BY WEEK

1. Introduction to the Data Literacy Pilot Program
2. Data Management Planning
3. Data Lifecycle Models
4. Discovery and Acquisition
5. Description and Metadata
6. Data Security and Storage / Description & Metadata (Part 2)
7. Issues in Copyright and Licensing Data
8. Description and Metadata (Part 3)/Mid-point Check-in
9. Data Sharing/File Naming Conventions
10. Data Management and Documentation
11. Data Visualizations
12. Data Repositories
13. Data Preservation
14. Data Publication and Curation
15. Data Literacy Course Wrap-Up

http://docs.lib.purdue.edu/dilcs/
ASSESSMENT

Formative:
- Assignments
- “Minute Papers”

Summative:
- End of Semester Focus Group
- Six Month Follow-up Interviews

‘This course really changed the way I think about research. It made me into a better scientist because now I have taken responsibility for my data management.’
‘Most of this material is abstract, but being able to directly apply the course’s material to my own dataset right in class, made it much easier for me to grasp the topics.’
STRENGTHS

‘I liked how integrated you were across fields… I saw similarities in other departments that I did not think about [previously].’

Image Credit: “Launching the UAV”
http://www.agry.purdue.edu/hydrology/personal_pages/Hearst_Anthony.asp
‘I was surprised [that there is] a framework in place for handling these kinds of issues. Information is out there if you know where to look for it.’
‘As more of a consumer than an author of data, I didn’t feel all the topics were useful to me… Economists are good at data acquisition, and need less guidance on quality & documentation.’
'I think your best balance is a lot of examples. Because then we know that there are so many options that there is not a “wrong” way to do it.'
‘I thought it was valuable to see the big picture, but I agree [start with] the hands on. I was really uncomfortable trying to start with the big picture. I felt like I was drowning.’

Image credit: “Bigger is Better” https://www.flickr.com/photos/zachd1_618/5010039548
‘Do I really have rights to my work as a graduate student?’
NEXT STEPS

• The course continues as AGRY 498000 for 2 credits this spring

• Co-taught by Marianne and Dr. Turco, an Agronomy professor

• Planning on being part of a larger data certificate program

Image Credit: https://ag.purdue.edu/agry/directory/Pages/rturco.aspx
THANK YOU

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Our materials are available through the Data Information Literacy Case Studies Directory:
http://docs.lib.purdue.edu/dilcs/