HOOKING UP DATA WITH LITERACY
Creating an educational framework for Uppsala University Library

Nadja Ylvestedt & Johanna Rayner
This is Uppsala University Library
Why hooking up data with literacy?
“Is there a vital part missing in Uppsala University Library’s educational framework? Are we ignoring an important part of how science is evolving?”
The big picture

digital humanities  open access
open data          big data
e-science          big data
Students need to have the critical thinking skills necessary to delve into data and figure out what it really means. They need the ability to synthesize and evaluate data to create new information and knowledge after they determined its quality.

Based on, Glenda A. Gunter (2007)
+ Data

Knowing when and where to start

Presenting and communicating

Information seeking strategies

Mastering complex and multiple information systems

Using a variety of sources and media

Analyzing and choosing

Evaluating, synthesizing, and using

Information Literacy Koncept
Adapted from (Tuominen et al., 2005)
What did we do?

1. Research!

2. Designing an education module!
1. Research!

So, data literacy is a thing...
2. Designing an education module!

Target: Earth Science Students writing their bachelor thesis
3. Thumbs up? Thumbs down?

- Lessons learned
- 35 results from the student quiz & survey
4. Reach out to faculty

Survey answered by 73 teachers within the fields of Biology, Earth Science, Pharmacy, Data & Technology

Tip: Use a library giftbag as bate!
Keyfindings

By recognizing that data literacy is connected to and integrated into other forms of literacy, students can be successfully supported to
Education in data literacy should differ depending on level and be adjusted so that it can be applied to different fields. Don’t do everything in one class!
“All points are worthy of teaching, and could probably be done well by the UU library, assuming that the target audience is undergraduate students.”

- Teacher UU, TekNat MedFarm
A student rating the workshop as "little of use for me" when asked for what he/she thought was the best part answered:

"The info about collecting data."

- Earth Science Student, 3rd year
By recognizing that data literacy is connected to and integrated into other forms of literacy, students can be successfully supported to manage all areas of their studies.

"Yes, so that I am able to show where I got it from and so that others can decide..."
"Yes, so that I am able to show where I got it from and so that others can decide if it is trustworthy and if my own assumptions based on this data are valid. It is also important to give “cred” for those responsible for the data."

Earth Science Student, 3rd year
The teachers were positive about the library getting involved in teaching data.

From your perspective, what concepts of data do you think Uppsala University Library could integrate when teaching students?
From your perspective, what concepts of data do you think Uppsala University Library could integrate when teaching students?

- Presenting tools for data visualization: 15.2%
- Finding data repositories within the field: 15.2%
- Ethical skills: 12.1%
- How to evaluate data sets from repositories: 9.1%
- I don’t consider this to be the University's responsibility: 15.2%
- Data citing: 18.2%
- Metadata: 15.2%
“I think the library plays an important role in teaching how to find information/data repositories and also on how to evaluate these repositories. It can also reinforce the education of ethical skills and data citing.”

- Teacher UU, TekNat MedFarm
The survey showed that most of the teachers lack the time to focus on the literacy aspect of data like evaluating, citing and ethical aspects. This also corresponds with how the students feel.

Have you prior to this been given education on how to interpret, visualize or to collect data?
Have you prior to this been given education on how to interpret, visualize or to collect data?

- Yes, and I feel safe within this area: 32.4%
- A little, but I would like some more: 8.8%
- No, I’ve learned this on my own or by other students: 58.8%
Teachers need help too!
boreholes (Dahlin et al., 2006)
Thank you!
Questions?

UUL Data Literacy Project 2016