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Data Literacy: Something for Everyone

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data literacy: something for everyone

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LIWest, 25 July 2014



- Many definitions depending on discipline, context, goal
- Relevant to all disciplines: not just for quantitative researchers anymore

 Entirely comparable to basic information literacy: understanding what you're looking for, where to look for it, and how to understand what you find when you find it

- Why should we bother?
 - Necessary real-world, post-graduation skill for students (they need to understand what they're combining in those sexy mashups)

- Why should we bother?
 - Professional practice: administration demands requests for empirical evidence that describes and justifies what we do

- Why should we bother?
 - Scholarly activity: growth of evidencebased empirical research expectations/opportunities in LIS scholarship

- Why should we bother?
 - Bad data makes bad decisions: crucial to be able to identify good or bad conclusions made from good or bad applications of data

- Where to start
 - 5-part framework for data literacy competencies (Prado & Marzal, 2013)
 - 1-3 easiest to incorporate in existing IL curricula

- One: Understanding Data
 - What is it? (hint: not just numbers)
 - What role(s) does it play in society? In scholarly communication?

- Two: Finding/Obtaining Data
 - Sources: who produces it (and why)?
 - Sources: where can you get it (and what if it doesn't exist)?

- Three: Reading, Interpreting & Evaluating Data
 - Presentation, Format, Citation Style,
 Context
 - Authority, Methodology,
 Comparability, Relevance

- Three: Reading, Interpreting & Evaluating Data
 - Why was the data collected/created, and are any conclusions drawn from it sufficiently explained/justified?

- Three: Reading, Interpreting & Evaluating Data
 - We're not (usually) statisticians, and we don't need to be.

- Three: Reading, Interpreting & Evaluating Data
 - For example, looking at a table of data in an article: what are the units? Data source?
 Observed or calculated data? Description of table in article text?
 - Slow down: spend at least as much time reading the table as you would spend reading a block of text taking up the same space on the page.

- Four: Managing Data
 - Understanding/creating metadata and codebooks
 - Importance of long-term preservation for access, replication, sharing (research data management)

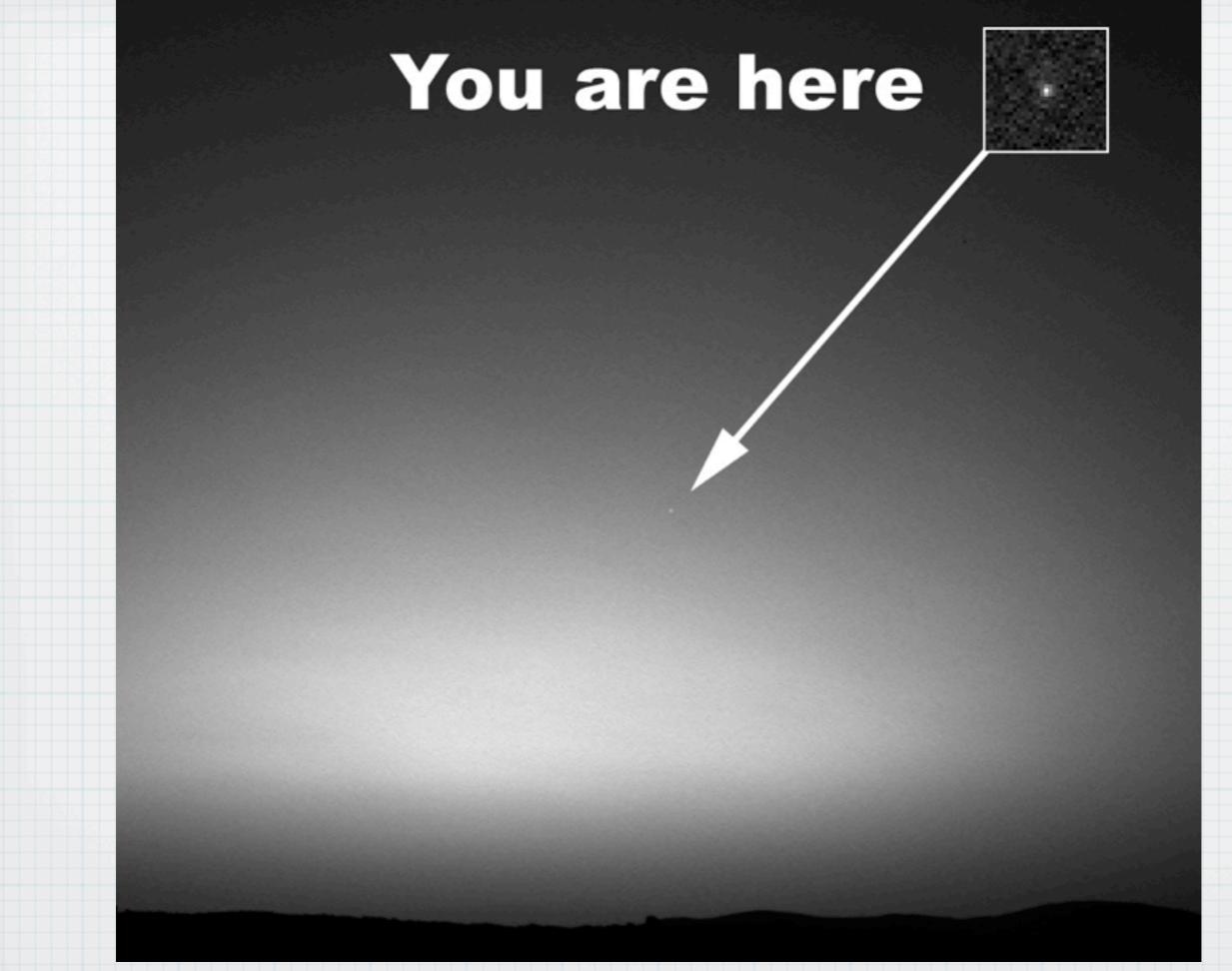
- Five: Data Handling
 - Specifics generally outside the scope of basic one-shot IL session (YMMV)
 - Ethical uses
 - · Who benefits from these data
 - Citing data

Prado, J. C., and Miguel Angel Marzal. 2013. "Incorporating Data Literacy into Information Literacy Programs: Core Competencies and Contents." Libri 63 (2): 123-134.

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and to put things into perspective...



Earth from the surface of Mars, 8 March 2004; Credit: NASA/JPL/Cornell/Texas A&M http://www.flickr.com/photos/gsfc/4542423536