# Library and Information Resources for Computer Science (CS 591)

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#### Hotseat

Two ways to participate:

- 1. Texting by cell phone
- 2. On the web
  - a. connect to PAL 3.0
  - b. visit https://www.openhotseat.org in a web browser
  - c. click Public Spaces
  - d. scroll down and click Library and Information Resources for Computer Science
  - e. when you submit responses (later) check the Anonymous box

#### topics

- 1. Producing scholarship
- 2. Planning your research & navigating library collections
- 3. Managing citations
- 4. Managing and sharing data

Poll 1: What is your area of study?

E.g., machine learning, databases, information assurance, software engineering

Poll 2: Have you authored or co-authored a paper?

Poll 3: What is the best conference or journal in your area of study?

Take five minutes to research on the web or discuss with other students

Poll 4: Why do you think this is the best conference or journal in your area?

## Formulating a good research question

- Relevant
- Manageable in terms of research and your abilities
- Substantial and original
- Consistent with requirements of assignment or call
- Clear and simple
- Interesting

http://www.socscidiss.bham.ac.uk/research-question.html

#### Create a research plan

- Review call for papers
- Organize work with collaborators and set deadlines
- Articulate and refine research question
- Consult background sources
- Note subject terms and keywords
- Determine best sources (authority, currency, quality, bias, relevance, accuracy)
- Conduct **lit review** revisit and refine question if needed
- Document sources
- Perform and report research

### Why conduct a literature review?

- Inform your work
- Confirm originality
- Reframe your question
- Provide background for your work
- Demonstrate how it fits with or extends current state-ofthe-art
- Find the best venue

Poll 5: Find your paper or a recently published paper from your advisor. Respond to the poll with the title of the paper and link to it

Take five minutes to locate a paper and respond to the poll with its title and link

# Where can you find quality information in Computer Science?

- Primary versus secondary sources
- Library website: <u>http://www.lib.purdue.edu</u>
- Catalog; print collections in CS are located in the Engineering (POTR) and Mathematical Sciences (MATH) libraries
- Databases and e-journals
- Google Scholar (set Preferences to search Purdue holdings)

#### "Big Four" library databases for CS

- 1. ACM Digital Library
- 2. IEEE Xplore
- 3. Lecture Notes in Computer Science
- 4. Foundations and Trends

Purdue Computer Science Library Guide: http://guides.lib.purdue.edu/cs

#### **Citation searching**

- DBLP
- Google Scholar
- CiteSeer
- Microsoft Academic Search, etc.

## Managing citations

Demo of Zotero as an example but other good software such as EndNote, Mendeley, and RefWorks are similar and effective

Library guide: <u>http://guides.lib.purdue.edu/zotero</u>

#### some examples of data

- Tables and spreadsheets
- Sensor and instrument output
- Software source code and simulations
- Images, video, and audio
- Observation logs
- Workflows
- Interview transcripts
- Survey instruments and results, etc.

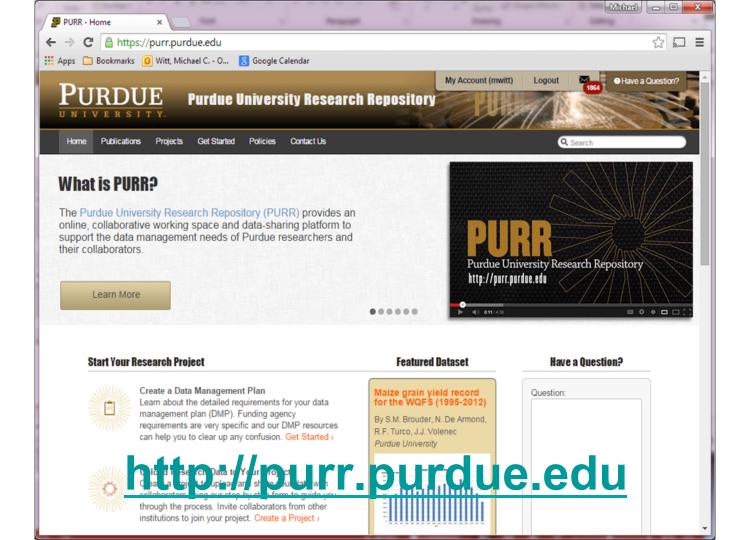
## data = evidence



http://epicgraphic.com/data-cake

## why share data?

- Helps other researchers better understand your research
- It's good science: reproducibility
- Get credit: the scholarship of data
- Enable reuse: creation of new knowledge & efficiency
- Funding agencies require it (data management plans): NSF, NIH, DOE, DOD, DHS, NASA, USDA, NEH, NOAA, FDA, EPA, HHS, AHRQ, DOI, ASPR, IMLS, CDC, DOT, ED, DOC, NIST, ODNI, SI, USAID, VA, Sloan Foundation, Gates Foundation, Moore Foundation, etc.



#### we covered:

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- 2. Planning your research & navigating library collections
- 3. Managing citations
- 4. Managing and sharing data

#### Michael Witt Computer Science Librarian CS Library Guide: <u>http://guides.lib.purdue.edu/cs</u> <u>mwitt@purdue.edu</u>, @mwittin, 765-494-8703

Office hours: Friday 10-4 LWSN 1160 (except travel) Contact me to make an appointment.