Purdue University PLM Center of Excellence Fall 2015 Meeting - October 15, 2015

# Data Curation and the Product Lifecycle Management

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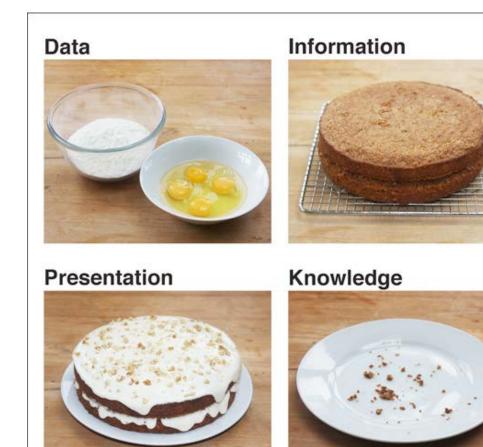
### **Perception of Libraries**



#### At a Tipping Point: Education, Learning and Libraries

OCLC, 2014 http://www.oclc.org/en-US/reports/tipping-point.html

### Data = Evidence



EpicGraphic.com

# Digital data, e.g.,

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

#### Data repositories

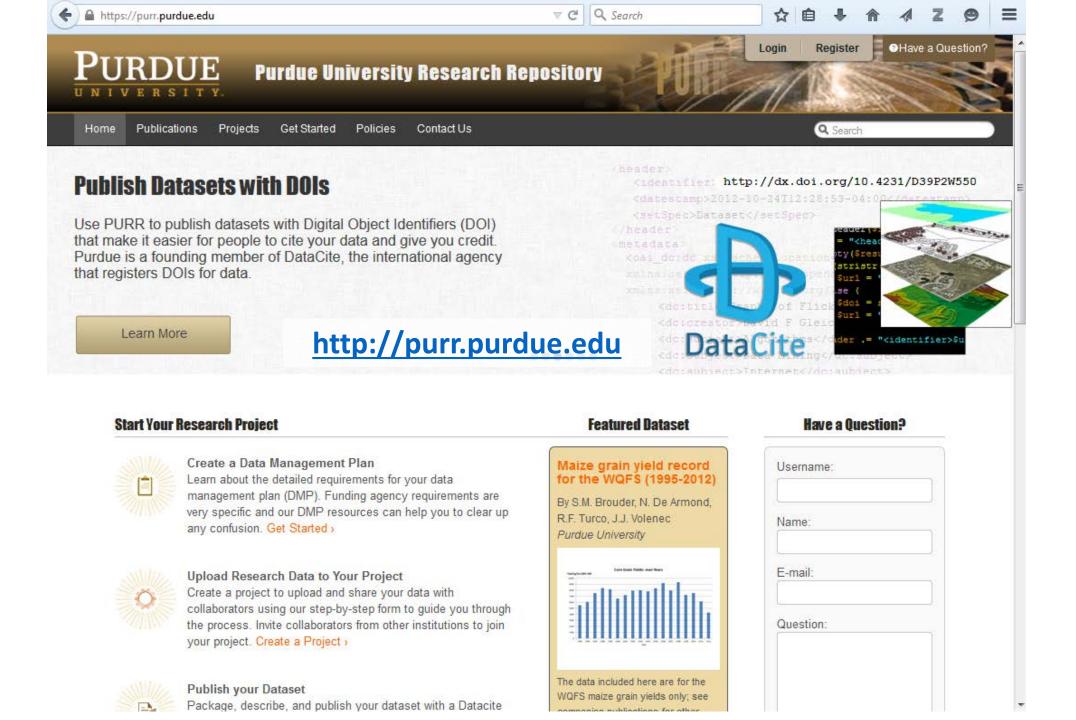






re3data: Registry of Research Data Repositories

http://re3data.org



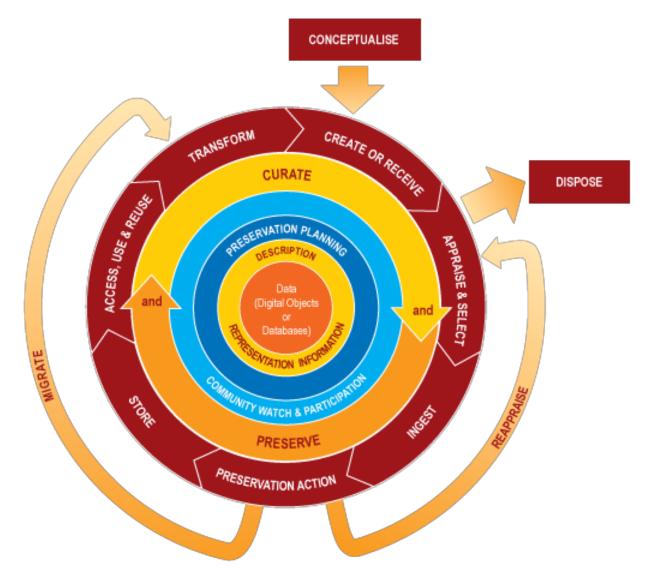
### Data Curation Profiles

- Interview instrument used to understand and outline research processes and *data curation needs* of researchers in different domains
- Includes an overview of the research, its purpose and audience, funding
- Follows specific example of a kind of data, its stages and corresponding workflows, format and scale, value for stewardship, and other context
- Other sections of the profile include intellectual property, data organization and documentation (metadata), access control, associated tools, interoperability, measuring impact, and data management and preservation

Data Curation Profile Toolkit

http://datacurationprofiles.org





#### **DCC Curation Lifecycle Model**

http://www.dcc.ac.uk/resources/curation-lifecycle-model

# Industry challenge: product data management

- The complexity of capturing, managing and future-proofing product data where requirements for supporting data may outlast the software environment that produced the data
- E.g., aerospace industry
- Compare research data lifecycle to the product lifecycle and myriad/emerging standards and practices from academic and research library community to industry
- Explore differences in approaches, identify gaps and overlap, begin to leverage best of breed for both

# PLM Center fellowship activities

- One year (renewable for second year) started last month
- Graduate assistantship & undergraduate internship/s
- Standards and literature review
- Meetings with industry partners
- Participate in LOTAR Working Group and meetings
- Select 2-3 partners to construct data curation profiles
- Map EN/NAS 9300 & LOTAR outputs from profiles to library and archival standards
- Identify and scope 1-2 gaps to address
- Final report to PLM Center & dissemination at relevant conferences



# Thank you

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