

Introduction to Open Data & Reproducibility

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What is Open Data?

- Open data is data that can be freely used, re-used and redistributed by anyone
 - Subject only, at most, to the requirement to attribute and sharealike.
 - Availability and Access
 - Re-use and Redistribution
 - Universal Participation

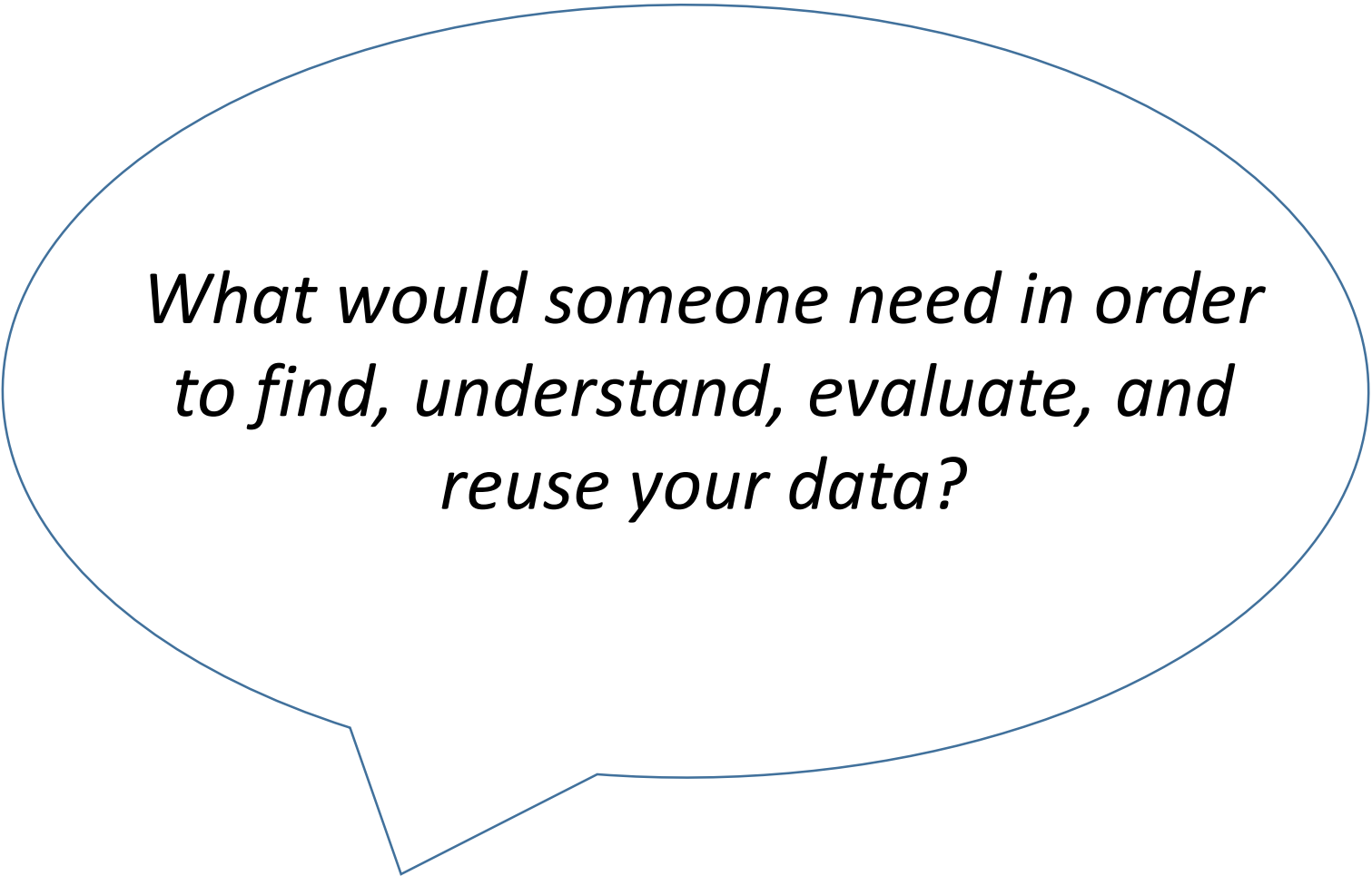
Interoperability



- Diverse systems and organizations working together (inter-operate).
- The ability to componentize and to ‘plug together’ components which is essential to building large, complex systems.

Why Open Data?

- Transparency and democratic control
- Participation
- Self-empowerment
- Improve or create new private products and services
- Innovation
- Improved efficiency & effectiveness of government services
- Impact measurement of policies
- New knowledge from combined data sources and patterns in large data volumes



*What would someone need in order
to find, understand, evaluate, and
reuse your data?*

Reproducibility

The Three R's



Image Source: <http://merchinsider.com/dealing-with-copycats/>

Metadata

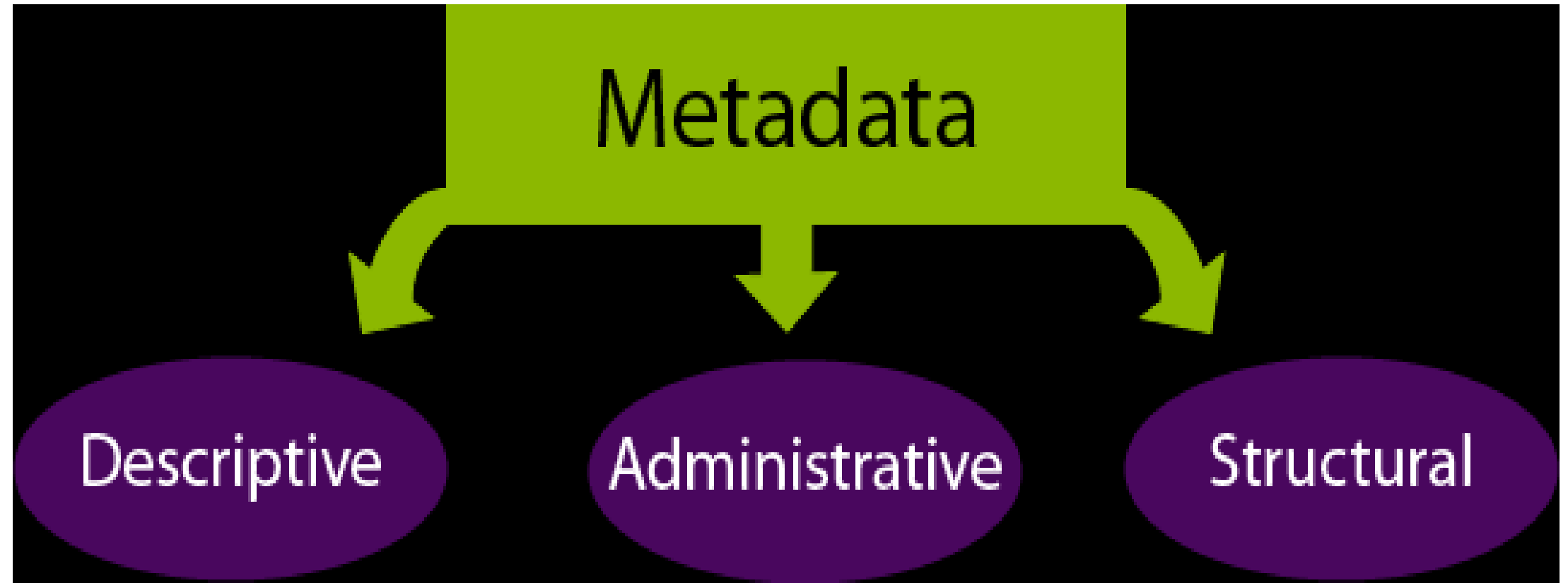
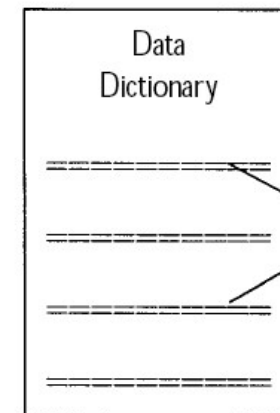
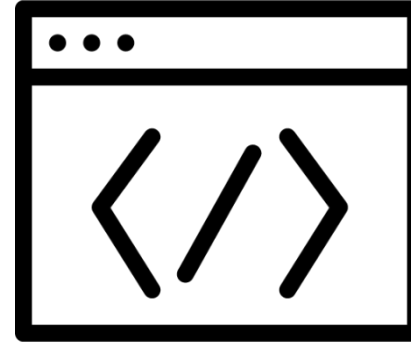


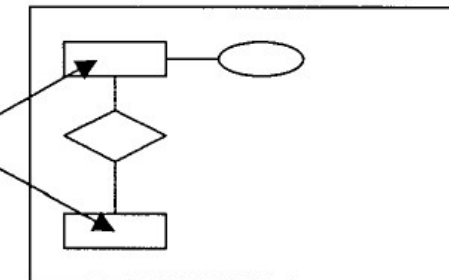
Image Source: <http://guides.library.uq.edu.au/research-data-management/metadata>

Methods

- Code
- Survey
- Codebook
- Data Dictionary
- Anything else you think is necessary



Entity Relationship Diagram



(shows relationship of data elements)

Image Sources: https://commons.wikimedia.org/wiki/File:Entity_Relationship_Diagram.jpg & <http://www.iconarchive.com/tag/code>

Security

HIPAA/FERPA



Storage

Rule of 3: 2 onsite, 1 offsite



More Information

- Digital Scholarship Services – <https://www.lib.uci.edu/dss>
- Research Data Management Guide - <https://guides.lib.uci.edu/datamanagement>
- Transparency and Openness Promotion (TOP) Guidelines -<https://cos.io/our-services/top-guidelines/>
- Replicability vs. reproducibility — or is it the other way around? -
<http://languagelog.idc.upenn.edu/nll/?p=21956>
- HIPAA Security Rule: <https://www.hhs.gov/hipaa/for-professionals/security/laws-regulations/index.html>
- Complying with FERPA: <http://dataqualitycampaign.org/wp-content/uploads/2016/03/Complying-with-FERPA-03.2013.pdf>

Thanks!

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