Working with Research Data

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Outline

- Accessing and reusing research data
- Computational environments for data processing
- Storing data, from files to databases
- Research data versioning and backup

Data Access

- It's complicated but it is improving
- Drivers for better access
  - Open Data imperative
  - Credit for publishing data
  - Increase return on investment in scientific research
  - Funders requiring data to be published
- Correspondingly, supporting infrastructures is
  - Increasing in number and quality
  - Adopting principles, guidelines, standards
  - Supporting human and programmatic access

Data Access

- You know how to access your data
- More difficult is access to data authored by others
- Presumes others have published their data
- Then you may be able to
  - Find their data
  - Access (retrieve) the data
  - Reuse the data

FAIR Principles

- Findable
- Accessible
- Interoperable
- Re-usable

Data Processing

Storing Data

Versioning and Backup

Take aways