

Pre-Class Preparation & Materials Needed (Instructor):

Send in an email to students:

- Confirmation of room and zoom link
- Remind students to bring their computers
- Make sure you know if everyone has R and installed; level of R fluency
- Snacks
- Copies of the syllabus
- Copy of Course Roster
- Flip charts and markers
- Dry write markers
- Tent cards for student names

Objectives and Competencies for this session:

- Describe and implement conventions for proper naming of files
- Explain the difference between proprietary and open formats
- Learn how to efficiently organize their research data files
- Learn the preferred format for storing and archiving different types of data files
- Become familiar with different options for cloud data storage and backup
- Develop and implement a plan for short- and long-term data storage, back-up, and archiving
- Learn rules and policies for data security
- Become familiar with tools for such tasks as batch renaming of files, cloud data storage, and automated data backup.
- Explain options for a long-term sustainable preservation strategy/policy for your data (e.g., discipline specific, institutional, departmental, individual).
- Address the need for conversion to standard formats needed for re-use
- Perform basic archival processes: checksum, auditing, format migration, etc.
- Understand costs & time lines for data storage, management tools and services

Pre-class Preparation (Students):

• Readings:

1. Jan Čurn. 2014. How a bug in Dropbox permanently deleted my 8000 photos. [\[read online\]](#) [\[download pdf\]](#)
2. PSA: Scrivener, Data Integrity and You. Or, How To Avoid Data Loss Heartbreak. [\[read online\]](#) [\[download pdf\]](#)
3. Hart EM et al. (2016) Ten Simple Rules for Digital Data Storage. PLoS Comput Biol 12(10): e1005097. [\[read online\]](#) [\[download pdf\]](#).
4. Panzarino, M. 2012. How Pixar's Toy Story 2 was deleted twice, once by technology and again for its own good. TNW. [\[read online\]](#) [\[\[download pdf\]\]](#)

• Online Lectures:

1. Video on [Project Organization](#)
2. Video on [File Names](#)
3. Video on [Storage and Backup](#)

Class Outline

1. **Block 1: (25 min):**
 - a. Address any questions from last week
 - b. Overview of today's activities.
2. **Block 2: File Format Competition (35 min)**
3. **Snack Break (10 min)**
4. **Block 3: Breakout 1 (25 min):**
 - a. Discussion of Data Security and Backup in the field
5. **Block 4: Breakout 1 return results (30 min)**
 - a. Key message - assume the worst case scenario. become paranoid. embrace neurosis. then relax because the plan is in place and all possibilities have been accounted for.
6. **Block 5: Breakout 2 (55 min)**
 - a. Interview Breakout, collect answers on google doc or word doc and submit with Assignment 2
 - b. Remainder of time is to work on Assignment 2. Instructor regularly checking in on students

After class:

- Be sure you complete and submit the assignment by 9 am Monday
- Prepare for next session (assigned reading, videos, etc).