



Ten Things for Curating Reproducible and FAIR Research

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research data sharing without barriers
rd-alliance.org

- Lack of standard approaches
- Confusion of terminology
- Gap in specific skill areas

- Computational Reproducibility
- Curation
- Research Compendium
- Curating for Reproducibility (CURE-FAIR)

10 Things for Curating Reproducible and FAIR Research

- Publishing and archiving computationally reproducible studies.

Intended Audience

- Data curators and information professionals
- Researchers, publishers, editors, reviewers, and similar
- Focus on social science research that relies on quantitative data to produce results.
 - Can be reused or adapted to other fields

10 Things for Curating Reproducible and FAIR Research

- “Get Started” - awareness level
- “Learn More” - basic skills
- “Go Deeper” - advanced topics

10 Things for Curating Reproducible and FAIR Research

1. Completeness

The research compendium contains all of the objects needed to reproduce a predefined outcome.

2. Organization

It is easy to understand and keep track of the various objects in the research compendium.

3. Economy

Fewer objects in the compendium mean fewer things that can break and less ongoing maintenance.

4. Transparency

The full context necessary to understand the research process is available.

5. Documentation

The process and reasoning required to reproduce a scientific claim are readily available and understandable.

6. Accessibility

It is clear who can use what, how, and under what conditions, with "open" being preferred.

7. Provenance

The origin of the components of the compendium and how each has changed over time is evident.

8. Machine-readable metadata

Information about the compendium and its components is embedded in a standardized schematic code.

9. Automation

As much as possible, the computational workflow is script-based to allow re-execution with minimal actions.

10. Maintenance

A series of managed activities are in place to ensure continued access to and functionality of the compendium.

- **CURE-FAIR Challenges:** Describe the challenges of preparing and reusing materials required for computational reproducibility; collect information from various stakeholders about their challenges.
DOI: [10.15497/RDA00063](https://doi.org/10.15497/RDA00063)
- **CURE-FAIR Annotated Bibliography:** Provide a broader understanding of what it means to curate research artifacts (e.g., data, code, software) for the purposes of supporting research reproducibility
https://www.zotero.org/groups/2868459/rda_cure-fair_subgroup_1/library
- **CURE-FAIR Practitioners:** Identify organizations/groups that have fully implemented CURE-FAIR workflows and learn about the various ways researchers and research-supporting organizations have implemented data curation tools, services, and/or workflows that support computational reproducibility; develop a standard form to collect profile information from CURE-FAIR implementers. [forthcoming]

Endorsement and Adopters

- Odum Institute
- Cornell Center for Social Science

THANK YOU!

CURE-FAIR WG

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