F-UJI for research software

Automating assessment of the FAIR Principles for Research Software (FAIR4RS)

FAIR?

Findable
Accessible
Interoperable
Reusable

FAIR principles for research software (FAIR4RS)

F: Software, and its associated metadata, is *easy* for both humans and machines *to find*.

A: Software, and its metadata, is *retrievable via standardized protocols*.

I: Software *interoperates* with other software by exchanging data and/or metadata, and/or through interaction via application programming interfaces (APIs), described *through standards*.

R: Software is both *usable* (can be executed) *and reusable* (can be understood, modified, built upon, or incorporated into other software).

FAIR Research Software Metrics & F-UJI

- 17 FRSM to translate principles into practical tests to measure the FAIRness of research software

- Metric evaluation with respect to compliance levels
  - Essential (1), Important (2), Useful (3)

  https://fair-impact.eu/metrics-software

- F-UJI: automated assessment of metrics
  - Guidance: What's already working and what could be improved (and how)
  - Improve understanding of relevance and application of FAIR4RS principles

Discipline-specific metrics: FRSM-05 and FRSM-13

FRSM-05: Does the software include development metadata which helps define its status?

FRSM-13: Does the software describe what is required to use it?

Discipline-specific metrics: FRSM-05

Does the software include development metadata which helps define its status?

- Generic method: Check if the software has machine-readable descriptive metadata associated with it that describes its development and status.
- CESSDA method: Check the README and CHANGELOG files for development status indicators.

Discipline-specific metrics: FRSM-13

Does the software describe what is required to use it?
- Generic method: Check for machine-readable information that helps support the understanding of how it is to be used.
- CESSDA method: Check the README file.

Discussion starting points

- What are good or bad examples that you have seen?
- What is the absolute minimum in your view?
- How would you go about checking the requirements automatically?

Discussion: hybrid format

Remote facilitator:
- Keep track of the chat, raised hands
- Point of contact for remote participants about any trouble hearing or seeing

In-person participants:
- Join the Zoom breakout room

Remote participants:
- Let others know when you can't hear

Reflection and wrap-up

FRSM-05: Does the software include development metadata which helps define its status?

FRSM-13: Does the software described what is required to use it?

Thank you for participating!

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