Dare to be mair than just FAIR!

FAIR PLAY to research software, courtesy of RSEs

FAIR Software @ National eScience Symposium 2019, Johan Cruijff ArenA, Amsterdam, 2019-11-21

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Is FAIR software fair enough?
Spoiler: It’s not.
But: There’s something great about FAIR!
FAIR <insert digital artifact class here> BETTER RESEARCH
FAIR <insert digital artifact class here> BETTER RESEARCH

- FAIR makes research possible, easier, and better
FAIR <insert digital artifact class here> BETTER RESEARCH

- FAIR makes research possible, easier, and better
- FAIR doesn’t obstruct Open Science
  (unlike some publishers)
FAIR, the brand

- FAIR, FAIR, everywhere
  (it’s almost as if ...)

4.3
FAIR, the brand

- FAIR, FAIR, everywhere
  (it’s almost as if ...)
FAIR, the brand

- We, the research software community, can make use of the brand, e.g.:
  - Policy changes create leverage (to campaign for RSE, or FAIRSE)
  - May increase visibility for software sustainability concerns
Is FAIR enough?
Probably not! [1], [2], [3]
Probably not! [1], [2], [3]

FAIR != OPEN
Probably not! [1], [2], [3]

FAIR != OPEN

FAIR != CREDIT
Probably not! [1], [2], [3]

FAIR != OPEN
FAIR != CREDIT
FAIR != GOOD
Perhaps we don’t need FAIR Software, but rather rules of FAIR PLAY for software!

FAIR PLAY?

(I’m sure there’s a backronym in there somewhere)
Perhaps we don’t need FAIR Software, but rather rules of FAIR PLAY for software!

**FAIR PLAY?**

(I’m sure there’s a backronym in there somewhere)

FAIR PLAY Software is …

Findable, Accessible, Interoperable, Reusable,
Perhaps we don’t need FAIR Software, but rather rules of FAIR PLAY for software!

FAIR PLAY?

(I’m sure there’s a backronym in there somewhere)

FAIR PLAY Software is ...

Findable, Accessible, Interoperable, Reusable, and Per default open source,
Perhaps we don’t need FAIR Software, but rather rules of FAIR PLAY for software!

FAIR PLAY?

(I’m sure there’s a backronym in there somewhere)

FAIR PLAY Software is ...

Findable, Accessible, Interoperable, Reusable, and Per default open source, Licensed,
Perhaps we don’t need FAIR Software, but rather rules of FAIR PLAY for software!

FAIR PLAY?
(I’m sure there’s a backronym in there somewhere)

FAIR PLAY Software is ...

Findable, Accessible, Interoperable, Reusable, and Per default open source, Licensed, Attributing contributions to it (for credit),
Perhaps we don’t need FAIR Software, but rather rules of FAIR PLAY for software!

FAIR PLAY?

(I’m sure there’s a backronym in there somewhere)

FAIR PLAY Software is ...

Findable, Accessible, Interoperable, Reusable, and Per default open source, Licensed, Attributing contributions to it (for credit), and of adequate quality!
FAIR PLAY == FAIR + RSEng
RSEs be FAIR to the world

- Publicly funded research products (software) belong to the public
- Use (permissive) open source licensing
- Publish your software proactively in a registry, get a PID (DOI)
- Archive your software sustainably (Software Heritage)
RSEs be FAIR to others

- Do your best to ensure that your software is of “adequate quality”, so that downstream users can:
  1. understand it,
  2. use it,
  3. trust it.
  4. change it.
- How do we measure software quality? (Internal) metrics? Peer review? Usage?
- Best practices: VCS, CI, tests, documentation, code review, etc.
RSEs be FAIR to themselves

- Make your software citable ("A" in "PLAY")
- Provide citation metadata
Okay, also be FAIR to others (again)

- Cite software that you use
- Do so both in your papers and in your software
“Haud on a b***in’ minute here, Joe! Have ye noticed somethin?”

Is this - or is this no - a STUDENTY PLACE?
“Haud on a b***in’ minute here, Joe! Have ye noticed somethin?’”

Q: So I, RSE, am supposed to do all the hard and tedious (metadata) work then?

A: Yes. (But we are trying to make it simpler.)
Citation metadata 101
CITATION files

- Citation File Format (CFF, YAML) [4]: [citation-file-format.github.io](https://citation-file-format.github.io)
- (Alternatively CodeMeta (JSON-LD) [5]: [codemeta.github.io](https://codemeta.github.io))

```yaml
# CITATION.cff
ccf-version: 1.1.0
message: "If you use this software, cite it using these metadata."
authors:
  - family-names: "Druskat"
    given-names: "Stephan"
    orcid: https://orcid.org/0000-0003-4925-7248
title: "My Research Software"
version: "2.0.4"
doi: "10.5281/zenodo.1234"
date-released: 2017-12-18
```
Manual creation & curation

- Copy, paste & adapt the example, or
- use a simple webservice: citation-file-format.github.io/cff-initializer-javascript/.

- Put CITATION.cff in the root of your source code repository.
Auto-generation

- Let your build (soon for Maven, incl. dependencies) or registry do it
“But how do I get the Zenodo DOI into the release CITATION.cff file automagically?”

a.k.a. 🐔🥚

We’re working on it. With Zenodo ❤!
And perhaps one day ...
Conclusion
FAIR Software
FAIR Software + practice of FAIR PLAY

FAIRY DUST everywhere
Conclusion proper
Conclusion proper

- FAIR does not work fully for software
Conclusion proper

- FAIR does not work fully for software
- FAIR is an established “brand”
Conclusion proper

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- Research software can leverage the brand
Conclusion proper

- FAIR does not work fully for software
- FAIR is an established “brand”
- Research software can leverage the brand
- Even if we fail to define FAIR Software, FAIR + RSE = FAIR PLAY can achieve for software what FAIR has achieved for data
Thanks!

citation-file-format.github.io
github.com/citation-file-format/citation-file-format

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Appendix
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FAIRy “art” - use at your own risk

- FAIRy by me
- FAIR PLAIry also by me
References


