

# Software Citation

## About

Currently how to cite software is not clear or technically resolved, and secondly the documentation of basic information (metadata) that a software maker should provide is also not clearly defined so that researchers looking to use published works do not have enough information to act on.

Guidance is needed on both issues and we can engage with key players working on these problems.

## Editorial evaluation

[Editorial criterion](#)

**#Questions** 1. needs 3. improving systems

**#Editorial** 1. empowering 2. discourse 3. bottom-up 5. replicable models

**#Brand** 3. gender equality 4. co-creation

**#Strategy** 1. three channel

**#Audience** 1. career 2. engaged

**Note:** [Blog comparators](#) are not carrying stories on this topic (3.18 SW)

## How to break the topic down

- How to record information to describe a software project and its contributors
- Projects going on to create systems for software citation: to record, to read, to collect, etc. Get input from different projects. What are their research questions/interim findings. We have CodeMeta, CFF, CiteAs.
- What information do journals and repositories want when submitting software
- How can citing be more useful for researchers. Is there enough information to be useful for research publication/software readers/users
- The Future: Can software cited be fully available in a – validated, CI, packet managed, dependency managed, virtualised way – so that it can be retrieved or run live. e.g. Jupyter <https://jupyter.org/> and Binder to republish <https://mybinder.org>
- Note: we need clear guidelines or pointers to this info, for: software makers, journal submissions of software, and academic writers of scholarly literature wanting to cite software.
- Top three info sources in each area: journals, papers, software citation software project, working groups and organisations

## Community: to engage

- #oscibar [https://etherpad.wikimedia.org/p/oscibar2018\\_session10](https://etherpad.wikimedia.org/p/oscibar2018_session10)
- Zenodo
- CodeMeta <https://github.com/codemeta/codemeta>
- CFF Citation File Format <https://citation-file-format.github.io/>
- CiteAs <http://citeas.org/about> <http://impactstory.org/>
- Force11 working group running through <https://github.com/force11/force11-sciwg/>
- Wikidata
- Software Heritage
- Katrin Leinweber TIB - Software Carpentry
- de-RSE (Research Software Engineers) Group (German group): <http://www.de-rse.org/en/>
- Software Heritage
- Sustainable Software for Science: Practice and Experiences (WSSSPE) <https://twitter.com/WSSSPE>

## Literature and projects (Zotero)

<https://www.zotero.org/groups/1838445/o-s/items/tag/software-cite>

### Key resources

2016 Force11 working group running through Dec' 18. **Group** <https://www.force11.org/software-citation-principles> **Article** <https://peerj.com/articles/cs-86/>

2018 Nature Software Submission Guidelines', 2018. <https://doi.org/10.1038/d41586-018-02741-4>

## Stories

Blog post in and running order:

### Launch

- ☒ Project: CFF Citation File Format Stephan Druskat, CFF lead, HU (**see attached draft**)  
OR, if it comes in

- ☒ Force11 group report. Neil Chue Hong, Director Software Sustainability Group, Edinburgh Uni, FORCE11 Software Citation WG co-leader (**due 10 May, now in 22 may**)

#### Followed by

- ☒ Blog: Open Science Barcamp – report on software citation by moderator, Sophia Doerner [sophia.doerner@hu-berlin.de](mailto:sophia.doerner@hu-berlin.de) (**draft attached**)
  - ☒ Blog: Software Citation 'How-to' article and follow on forum – Katrin Leinweber TIB, title: Concrete advice for more sustainable scientific software projects. **On private TIB Git** <https://git.tib.eu/leinweberk/FAIR-Data-Prinzipien-auf-Software-anwenden> **and see attached.**
  - ☒ Software Heritage, Morane Gruenpeter, @INRIA Paris, <http://www.softwareheritage.org> <http://moranegg.github.io/> (due in later, 10th June, run 17th June)  
OR if it arrives later
  - ☒ Force11 group report. Neil Chue Hong, Director Software Sustainability Group, Edinburgh Uni, FORCE11 Software Citation WG co-leader (**due 10 May, now in 22 may**)
- Possible from
- ☒ Daina, Bouquin, FORCE 11 Feb meeting, Head Librarian at the Harvard-Smithsonian Center for Astrophysics, [https://github.com/CfA-Library/Cite\\_Astro\\_Software/blob/master/whitepaper.md](https://github.com/CfA-Library/Cite_Astro_Software/blob/master/whitepaper.md) also posted to Astronomy Computing Today

#### No, or no signs of life

- ☐ Project: CiteAs

#### Possible and being worked on

- ☐ Re-use and journals. Blog. How software is described and documented so that its citation can be of use to future practitioners and readers of research publications. e.g. 2018 Nature Software Submission Guidelines', 2018. <https://doi.org/10.1038/d41586-018-02741-4>
- ☐ Project: CodeMeta
- ☐ See [list possible articles](#)
- ☐ Get more articles **0.5 day**
  - ☐ FORCE11
  - ☐ Juyptr
  - ☐ DHd – Digital Humanities im deutschsprachigen Raum e.V. (DHd)/ Association Digital Humanities in German Speaking Countries, DHd Working Group Software Engineering in den Digital Humanities
  - ☐ Digital Preservation Coalition & Software Preservation Network, Jessica Meyerson and Sarah Middleton, <https://dpconline.org/events/past-events/webinars>
  - ☐ Anna Novesky, "Authorship of Data and # Research Software - Possibilities of Visualization and Establishment in History",

*Mein Vortrag bei der Tagung [#Forschungsdaten](#) in der [#Geschichtswissenschaft](#) zu "Autorschaft von Daten und [#Forschungssoftware](#) – Möglichkeiten der Sichtbarmachung und Etablierung in der Geschichtswissenschaft" <https://t.co/ec5uoqqyv4>*

— Anna Neovesky (@annavsk) 7. Mai 2018

- ☐ Emily Sena, research replication, Uni of Edinburgh
- ☐ Harvard Astrophysics
- ☐

#### Editorial posts (to do)

- ☒ Theme announce SW
- ☐ Theme - key issue breakdown (notebook)

#### Notebook (June to August)

- ☐ How to: The Software Citation community - get them onto the forum to help move things forward. I now have the contacts and literature from #OSBarcamp
- ☐ Blog/ resource: someone could give the top 3 lit, journals, projects, citation managers to use: **Literature and projects (provisional)** <https://www.zotero.org/groups/1838445/o-s/items/tag/software-cite>
- ☐ DataCite - how to join ORCID, posts and software use
- ☐ Learning resources:

- ☐ Open Science MOOC
- ☐ FORCE11 summer course
- ☐ Hold a video-conf workshop

In the notebook - but outside of the theme:

- ☐ Announce next theme
- ☐ Hold consultation - ongoing
- ☐ Upload Open Science taxonomy
- ☐ Map whats happening in LG with Open Science
- ☐ Integrate Zotero library

## Issues and questions:

Lobby OpenAIRE to include software. Currently OpenAIRE policy is not to include it – forum issue

## The Future?

Discover and run scientific code, Code Ocean <https://codeocean.com/>

Simulations in the browser, Jupyter <https://jupyter.org/> and Binder to republish <https://mybinder.org>

Continuous Integration and validation, with dependencies and full contributor audit

## Create a grid for the theme

To include: timeline, issues, keywords, who to name check, questions to ask.

## Contacts

See [software cite theme contacts](#)

## How To

Practical guide for GitHub using Zenodo to store a version and get a PID DOI <https://guides.github.com/activities/citable-code/>

How CiteAs searches for sources <http://citeas.org/sources>