

Journal of Open Source Software (JOSS)

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Today

- Software is still eating the world, including the research world
- ~95% of researchers use research software
- ~65% rely on it
- ~50% develop it
- But

Challenges	Technical	Cultural
Software isn't easily citable		✗
Software citations aren't allowed	✗	
Software citations aren't indexed		
Software isn't peer reviewed	✗	
Software can't cite other software		✗

Credit: Arfon M. Smith

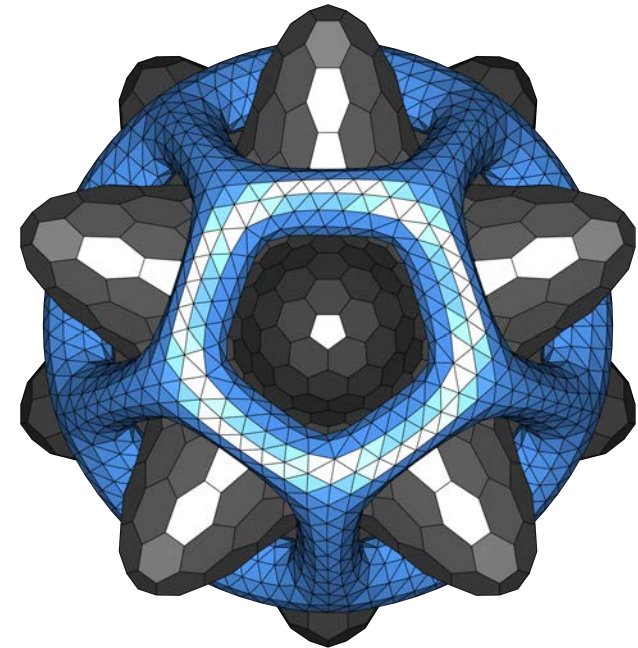
- How to recognize software contributions?
 1. Find some way to fit software into current (paper/book-centric) system
 2. Evolve beyond one-dimensional credit model

Journal of Open Source Software (JOSS)

- What if we could write papers about our software
 - Easily: short papers, around 2 pages
 - With quick & open peer-review of the paper **and** the software repository
 - Done on GitHub
 - In a familiar open-source style, using issues for open discussion between editor, reviewers, authors
 - With a bot (@whedon) helping perform common tasks
 - Collaboratively, with the goal of making the software and paper better (past a minimum bar)
 - Where developers volunteer to be reviewers
- Led to Journal of Open Source Software (JOSS)
 - A developer friendly journal for research software packages
 - “If you've already licensed your code and have good documentation then we expect that it should take **less than an hour** to prepare and submit your paper”

JOSS is novel

- Everything is open:
 - Submitted/published paper: <http://joss.theoj.org>
 - Code itself: where is up to the author(s)
 - Reviews & process: <https://github.com/openjournals/joss-reviews>
 - Code for the journal itself: <https://github.com/openjournals/joss>
- Using scholarly communications standards
 - ORCIDs identify users
 - Crossref stores metadata and issues DOIs
 - Portico archives papers and reviews
 - Author deposits reviewed software in Zenodo, figshare, Dryad, ...
- Zero cost to authors and readers
 - Cost is about \$3/paper
 - Cost model: <https://joss.theoj.org/about#costs>
 - Sustained by donations, grants, and lots of volunteer time



JOSS status

- First paper submitted 4 May 2016
 - 31 May 2017: 111 accepted papers + 56 in processing
 - 13 November 2019: 750 accepted papers + 111 in processing
 - Current publication rate: ~450 papers/year
- Editors: 1 editor-in-chief and 11 editors at launch
 - 1 EiC, 5 associate EiCs, 29 topic editors, 9 emeritus editors today
- Most highly cited articles (via Google Scholar)
 - corner.py: Scatterplot matrices in Python – 463
 - Armadillo: a template-based C++ library for linear algebra – 312
 - tidytext: Text Mining and Analysis Using Tidy Data Principles in R – 121



Vince Knight
@drvinceknight

Reviewing for @JOSS_TheOJ and #JOSE_theOJ (of the Open Journals: github.com/openjournals) is an exercise in restoration of faith in the "scientific process".

Both times it has felt like I'm doing something worthwhile through a collaborative conversation with the author. 🙌



Jonathan Reardon
@waterlego

I have to say, I've really enjoyed reviewing for The Journal of Open Source Software (@JOSS_TheOJ) so far, what a top-tier review process -- transparent, clear, supportive, and inspirational -- and all done on @github. A brilliant place to submit your research software imho 🙌

1:14 PM · Jul 6, 2019 · [Twitter Web Client](#)



Thomas J. Leeper
@thosjleeper

Follow

One of the things I really enjoy about editing for @JOSS_TheOJ is that because the editorial process is all on GitHub, I can do most of the work on my phone while commuting.

7:19 PM - 21 May 2018



Lee J. O'Riordan
@mlxd

For each of the (few) times I have participated in the review stages of a @JOSS_TheOJ paper I am incredibly impressed by the fluidity of the process. It is a great model for how other journals could (and should aim to) operate.

8:06 PM · Oct 16, 2018 · [Twitter Web Client](#)



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