

SUPPORTING OPEN CODE

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journals



Best practices when publishing open code

1

Proper documentation

Code needs to be sufficiently documented to enable others to check and re-use it. This includes information on dependencies, operating systems, technical requirements as well as licenses and terms of use

2

Peer review and verification

Peer reviewing the code ensures that it is evaluated by an expert and it is functional and re-usable at the time of publication

3

Permanence and recognition

Code should be stored in a repository using a permanent unique identifier, cited in the paper and recognized as a valuable output in its own right

4

F.A.I.R

Like data, published code should be Findable, Accessible, Interoperable and Re-usable

Open Science benefits all

Publishers can be catalysts to Open Science

Open Science practices ensure science is more **robust, reproducible** and **actionable by all**

Publishers can be catalysts for Open Science as **authors rely on publishers to provide support for sharing research objects.**

The combination of **policies, technological solutions and editorial expertise** is key to achieve progress in the sharing of research objects useful to all

Achieving Open Code requires policies, technology and editorial expertise

Policy + Technology + Editorial Expertise

Policy

SN has a unified policy encouraging open code and transparency



We encourage public code sharing in all our Journals and Books.

For **Journals**, a Code Availability section will be included for those articles in which authors declare having developed new code.

For **Books**, a strong encouragement to share code publicly at the time of publication

All journals require Code Availability statements for new code

The Nature Portfolio Journals also require code sharing during peer review

1

Code Availability statements

All SN journals and books are progressively adopting a policy that requires Code Availability statements when new code is present, and encourage open code sharing

2

Required code sharing and peer review

When code is central to the work, an expanding list of Nature Portfolio (and SN) journals require authors to also submit the code for peer review

AUTHOR FOLLOWS
CHECKLIST



SUBMITS
CODE



EDITOR



REVIEWER



finds code, sets up
environment, installs
dependencies, runs,
reproduces results

PUBLICATION OF VERIFIED CODE



Code  
DOI 

We have resources to help authors follow our policies

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SPRINGER NATURE

Open Science | Step-by-step guide

How to share your research code openly

Best practices for transparency and reuse

Read the blog



How to share your research code openly: Best practices for transparency and reuse



The Researcher's Source

By: Erika Pastrana, Wed Mar 11 2026

Openly sharing the code that underpins your research makes your results transparent, improves reproducibility and replicability of your findings, can increase citations and visibility, and helps you meet funder, institution, and publisher requirements. Building on our [previous introduction to open code sharing](#), this practical guide shows you how to do it responsibly for maximum reward.



Author: Erika Pastrana

Vice President, Nature Research Journals Portfolio

Step one: preparing your code for sharing publicly

Review your content: you should review your code to check that it includes only what you intend to share. Make a simple list of:

<https://preview.springernature.com/gp/researchers/the-researchers-source/open-science-blogpost/share-open-research-code-best-practice-/27849004>

SPRINGER NATURE

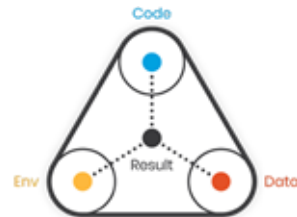
A dark blue 3D rectangular block is positioned on the right side of a medium blue background. The block is oriented such that its top and front faces are visible. The word "Technology" is printed in white on the front face of the block.

Technology

Integrated code sharing solutions make it easy for authors to share code

Nature Portfolio Journals have partnered with Code Ocean to support code sharing

- During the article submission experience, we ask authors whether they have developed new code as part of the publication
- If they answer Yes, we **offer support to share the code with the editors and reviewers via the Code Ocean platform**, or to provide details of where the code can be accessed
- The Code Ocean platform is a **reproducible container** that hosts the code, data and allows reproducing the results



Code sharing integrated solutions support authors, reviewers and readers

Code can be easily checked by reviewers, and accessed by readers

1

Supporting code sharing

The container assembles data, code and the right environment and offers transparency and reproducibility of the results

2

Supporting authors

Authors are given the option to use the Code Ocean platform and technical support to set up their code and data in a container.

3

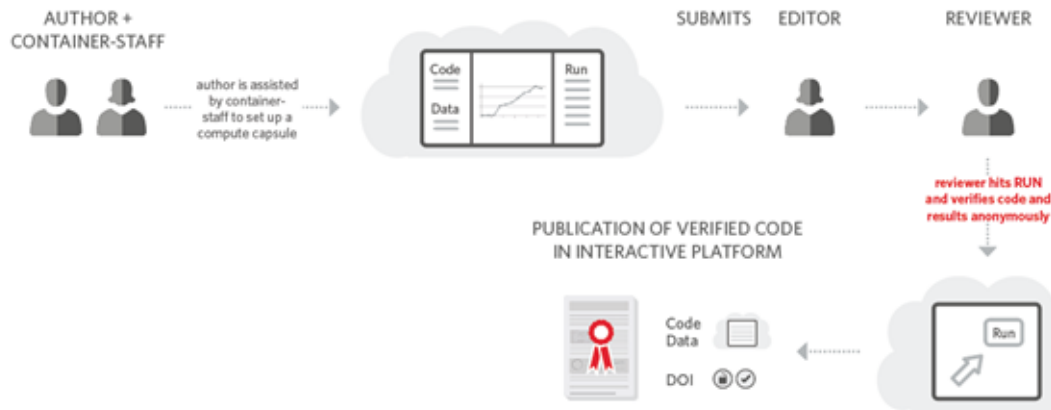
Supporting reviewers

Reviewers are provided private access to the code container and free-computing time. The container facilitates checking and running the code

4

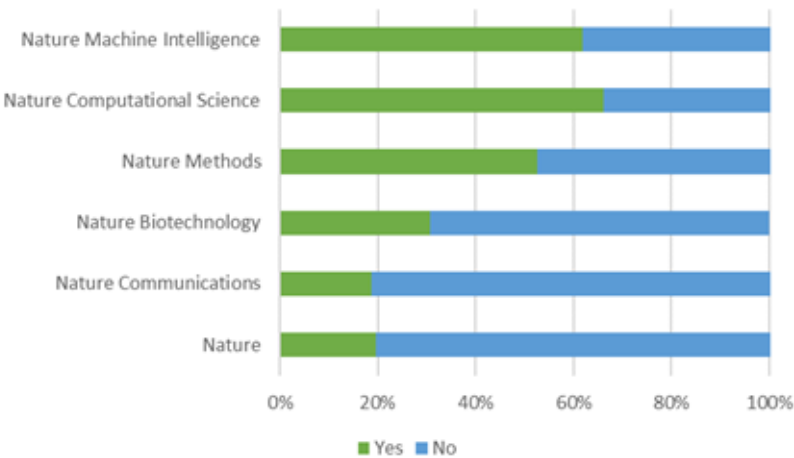
Supporting readers

Readers access code, data and environment in one place, via a link to the capsule. The capsule is given a DOI to enable proper recognition, citation and re-use

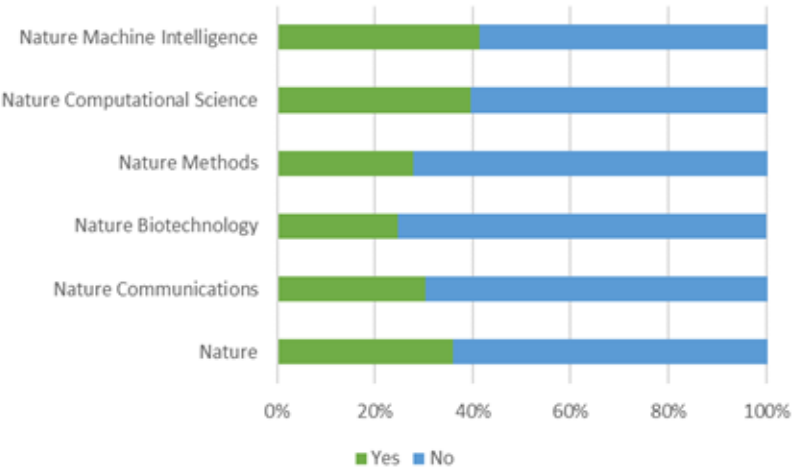


Between 25-41% of authors take up code sharing services

Have you developed new code as part of this research?



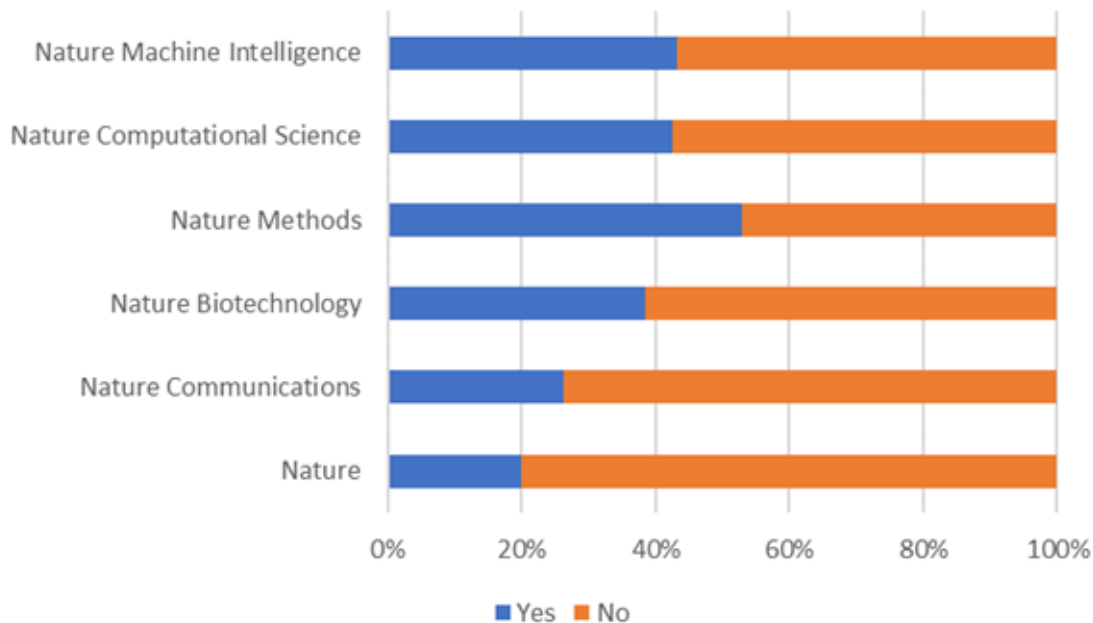
Would you like to use Code Ocean to share your code?



Reviewers engage in code checking during peer review

About 25% of reviewers report having checked the code

Have you reviewed the code associated with this paper?



Editorial Expertise

Editorial support helps achieve high rates of Code sharing

100% compliance of open code sharing at Nature Computational Science

- Launched in 2021, the journal enforces code sharing during peer review and strongly encourages public sharing at publication.
- Code Ocean was offered to all authors, and editors are proactive and passionate about working with authors to navigate their open science needs.
- As a result, of the 205 primary research articles published in the journal since launch, **all (100%) provide a Code Availability section and all share their code publicly, cite it and provide it via a permanent identifier.**

Code availability

All source codes and models of DeepFragLib are publicly available through a Code Ocean compute capsule (<https://doi.org/10.24433/CO.3579011.v1>)⁴⁹ and on GitHub (<https://github.com/ElwynWang/DeepFragLib>). We have also provided an online server for DeepFragLib at <http://structpred.life.tsinghua.edu.cn/DeepFragLib.html>.



Achieving Open Code requires policies, technology and editorial expertise

Policy + Technology + Editorial Expertise

Code, Data and Protocol sharing is promoted via platform integration

We partner with Figshare, Protocols.io and Code Ocean to support authors with OS

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Our open science initiatives

Transparent peer review

Authors publishing with Nature now benefit from transparent peer review for primary research articles, enabling greater knowledge sharing and building on principles of open science



Code sharing

Authors submitting primary papers to Nature-branded journals, including Nature and all the Nature Research journals, can now share their code and data via the Code Ocean platform



Protocols sharing

Authors can share step-by-step instructions for research methods on the protocols.io platform which is open access



Data sharing

Make your research more open and reusable by sharing your data through our partnership with the Figshare repository



<https://www.springernature.com/gp/open-science>

SPRINGER NATURE

Thank you for listening

Reusability Reports

An article type that promotes reuse of published code for new applications

Editorial | Published: 10 December 2020

Research, reuse, repeat

Nature Machine Intelligence **2**, 729 (2020) | [Cite this article](#)

3884 Accesses | **10** Citations | **18** Altmetric | [Metrics](#)

A research paper makes the most impact when its methods, data and code are available for others to use and build on. We highlight the benefits of good sharing practices with a new type of article, reusability reports.

Article | [Open access](#) | Published: 31 December 2025

Reusability report: Optimizing T count in general quantum circuits with AlphaTensor-Quantum

[Remmy Zen](#) , [Maximilian Nägele](#) & [Florian Marquardt](#)

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Abstract

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20 Mar 2025