RopenSci

rOpenSci

COMMUNITY OVERVIEW

The rOpenSci community is a self-identifying group composed of users and developers of software tools in the R programming language who, together, contribute to the technical and social infrastructure for open and reproducible research. Formed in 2011, rOpenSci focuses on software and best practices that lower the barriers to working with scientific data sources. Community members are people who use, cite, and share use cases for rOpenSci packages, attend or present in community calls, write blog posts, participate in rOpenSci unconferences or other events, answer questions in our fora, actively participate in the life of an rOpenSci project, contribute to or maintain a package, or participate in rOpenSci peer review as a reviewer, author or editor.

► Website: ropensci.org

KEYWORDS

Disciplines / skills
► INTERDISCIPLINARY
► DATA SCIENCE
► SOFTWARE AND CODE

Programming and goals
► STANDARD SETTING
► PROFESSIONAL DEVELOPMENT
► INFRASTRUCTURE DEVELOPMENT
► SKILLS DEVELOPMENT
► CAPACITY BUILDING
► OPEN SCIENCE
► SOFTWARE SUSTAINABILITY
► SOFTWARE PEER REVIEW

Stakeholder relationships
► MULTI-STAKEHOLDER

COMMUNITY BASICS

600

600 members with a several thousand-person broader reach

Mostly online with some in-person events*

*all activities were online during the COVID-19 pandemic

International

Mostly open - joining the Slack workspace requires approval but access to resources is open
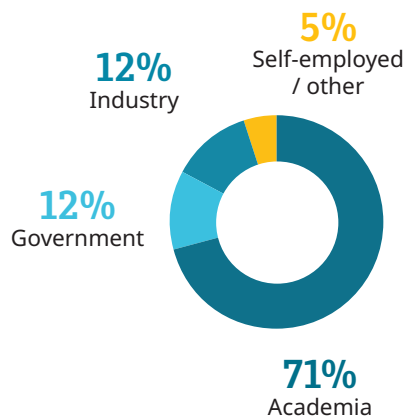
COMMUNITY STRUCTURE

Community Management
Community management is provided by a full-time **Community Manager** (1.0 FTE) and part-time **Community Assistant** (0.2 FTE). Some community members volunteer as editors or reviewers in our software peer review system.
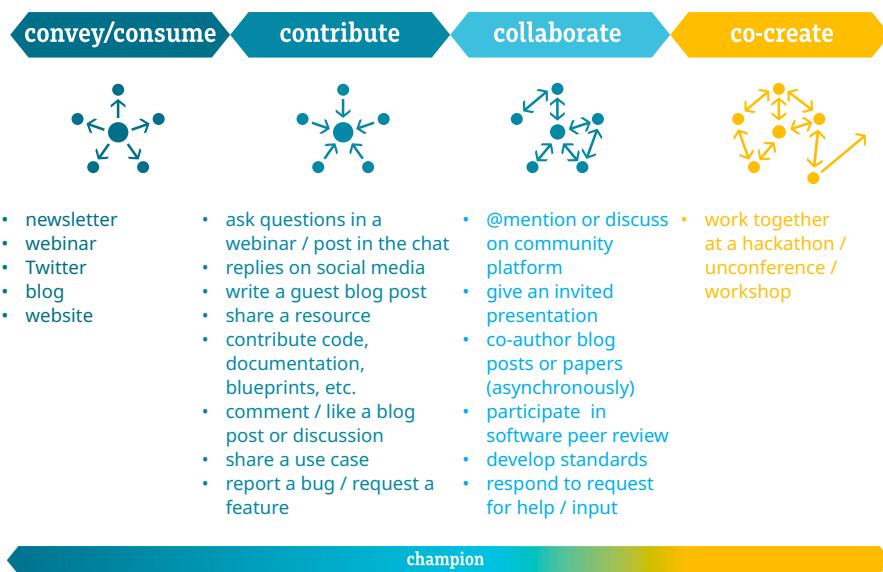
Members

5% Self-employed / other

12% Industry

12% Government

71% Academia

Community Configuration

follow on Twitter

use case submitter

users

blog post author

reviewers

package maintainer

editors

approved package authors

unconference attendee

guest editors

staff

speaker on community call

advisors

community call attendee

blog reader

rOpenSci

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PROGRAMMING

In this community, programming includes a monthly newsletter, biweekly blog posts authored by both community members and staff, weekly tweets of use cases and help-wanted issues in software, semi-monthly community calls, and monthly virtual co-working sessions. In the past, we have hosted annual in-person unconference-style hackathons. Authors inside and outside the community can submit a software package for peer review; editors put out calls for reviewers both inside and outside the community.

convey/consume	contribute	collaborate	co-create

- newsletter
- webinar
- Twitter
- blog
- website

- ask questions in a webinar / post in the chat
- replies on social media
- write a guest blog post
- share a resource
- contribute code, documentation, blueprints, etc.
- comment / like a blog post or discussion
- share a use case
- report a bug / request a feature

- @mention or discuss on community platform
- give an invited presentation
- co-author blog posts or papers (asynchronously)
- participate in software peer review
- develop standards
- respond to request for help / input

- work together at a hackathon / unconference / workshop

champion

COMMUNITY CHAMPIONS

This community does not currently have a formal champions program. Members act as informal champions in the following ways:

i CHAMPIONS take on additional activities to support or advance the community. They are sometimes described as emergent leaders.
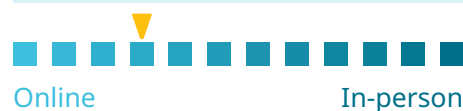
MAINTAIN
- code review / maintainer roles

GROW
- reshare resources
- represent the community at external events
- recruit new members
- train new members

EVOLVE
- participate in a focus group or other means of in-depth feedback

i **THE COMMUNITY PARTICIPATION MODEL**

The CSCCE Community Participation Model describes four modes of member engagement that can occur within a community – CONVEY/CONSUME, CONTRIBUTE, COLLABORATE, and CO-CREATE – and one that can occur both inside and outside of it: CHAMPION. All modes may be present at once, with some members interacting in multiple modes – or a community may have member engagement that falls into only some of the modes described. The model enables the mapping of community member behaviors to programming and other infrastructural support that the community manager, convening organization, or funder may provide to the community.

▶ For more information, see the CSCCE community participation model.

Online   In-person

COMMUNITY TOOLBOX

Communications

Email	Slack
Blog	GitHub
Twitter	Discourse
Zoom	Vimeo
Otter.ai	

Productivity

R	GitHub
Google Drive	

Community platform

GitHub	Discourse
Slack	

rOpenSci

rOpenSci

doi: 10.5281/zenodo.5033282

OUTPUTS & EVALUATION

Success looks like people adopting and promoting the use of well maintained, reusable, peer reviewed R software tools, and feeling like they have the means to co-create within the community.

Successes over the last year

More than half of all blog posts are written by community members and community calls were attended by hundreds of people from 19 countries in 5 continents. Staff were recognized by outside organizations for rOpenSci's community call approach and asked to present about this topic.

- **Engagement** - increased activity of members
- **Value** - external recognition of the community's impact
- **Value** - members expressing recognition of the community's value

Evaluation and Reporting

- Community member interviews
- Surveying community members
- Reports for community team
- Reports for leadership

Opportunities

Currently conducting a series of member interviews to inform future strategy and programming.

- **Activities** - facilitate community adoption of new infrastructure or programs

Challenges

The changing landscape of open and reproducible research and increase in new initiatives means we need to determine what members can accomplish with the rOpenSci community that they cannot do without it. Challenges include:

- Lack of clarity about community goals
- Lack of bandwidth for full programming
- Instability in industry
- Increasing diversity

FUNDING

100%
Grants

Funding Streams

- 100% funding from the Leona M. and Harry B. Helmsley Charitable Trust, the Alfred P. Sloan Foundation, the Gordon and Betty Moore Foundation, and NumFOCUS

rOpenSci has provided fellowships in the past but does not currently offer funding opportunities for members.

ABOUT THIS PROFILE

This profile is part of a research project conducted by the Center for Scientific Collaboration and Community Engagement (CSCCE). You can find out more about the project, and view more community profiles, on our website.

Information for this profile was submitted by Stefanie Butland, Community Manager, and Karthik Ram.

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