CSCCE Community Profile

CREATED IN COLLABORATION WITH: Wilson Center

Open Source Hardware Association

doi: 10.5281/zenodo.5160281

COMMUNITY OVERVIEW

The Open Source Hardware Association (OSHWA) was established in 2012 to build public support for open hardware and educate industry, designers, hobbyists, and researchers about how to comply with open source requirements. OSHWA hosts the annual Open Hardware Summit, organizes Open Hardware Month, and maintains the Open Source Hardware certification program. The certification program was created to help researchers quickly identify hardware that complies with the OSHWA community definition of open source, while also raising awareness among public stakeholders. Through an annual survey, OSHWA collects and publishes metrics on the open source hardware community, and also publishes various documents and tools to support best practices.

- Website: www.oshwa.org/

COMMUNITY BASICS

About 15 000 people are familiar with OSHWA via summits, memberships, and online presence

Mostly in-person with an online component*

*all activities were online during the COVID-19 pandemic

International

Open - anyone can join

KEYWORDS

Paradigms

- OPEN INNOVATION
- OPEN HARDWARE

Disciplines / skills

- INTERDISCIPLINARY
- ENVIRONMENTAL SCIENCE
- SOCIAL SCIENCE
- ENGINEERING
- ELECTRONICS
- HEALTH / MEDICAL
- MANUFACTURING
- EDUCATION
- AEROSPACE
- ROBOTICS
- BIOTECHNOLOGY

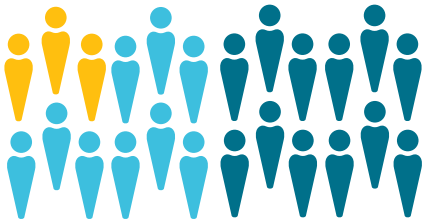
Programming and goals

- STANDARD SETTING
- OUTREACH AND EXTERNAL COMMUNICATIONS
- DIVERSITY, EQUITY, AND INCLUSION

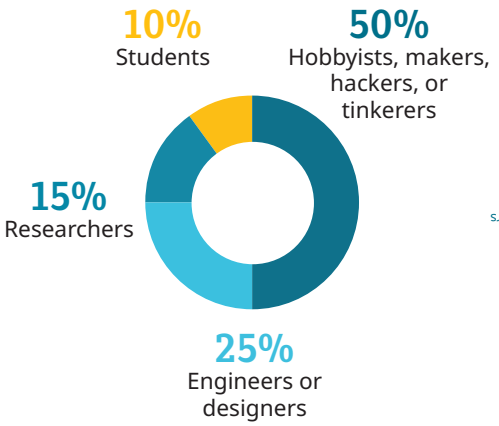
COMMUNITY STRUCTURE

Community Management

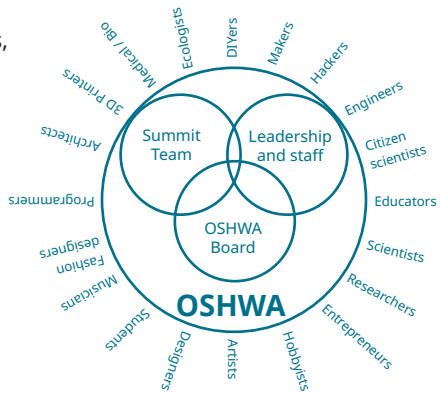
Community management is provided by a .25 FTE **Outreach Manager**, a .25 FTE **Executive Director**, and a .25 FTE **Summit Chair**. 9 **board members** each contribute 5-10 hrs/month of assistance as well as involvement from some past board members. 10-20 **community members** run local events.



Members



Community Configuration



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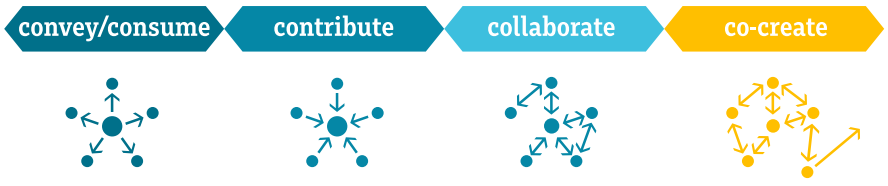
PROGRAMMING

In this community, programming includes an annual summit, an ongoing certification program, and working groups in various fields and industries. In years where members meet in person, some of them organize local events for Open Hardware Month.



- email list
- newsletter
- Twitter
- website
- online community forum

- contact community manager directly
- replies on social media
- share a resource
- contribute code, documentation, blueprints, or other resources
- fill in a survey
- submit a talk proposal for the summit

- contact one another directly
- @mention or discuss on community platform
- co-author blog posts or papers (asynchronously)

- simultaneous co-authoring
- participate in working groups or special interest groups (often led by board members)
- organize events together
- asynchronous collaboration in version control repositories

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.

COMMUNITY CHAMPIONS

There is no formal champion's program, but OSHWA community members receive resources and suggestions for creating Open Hardware Month events. Members, especially board members, also act as informal champions in the following ways:

CHAMPIONS take on additional activities to support or advance the community. They are sometimes described as emergent leaders.

MAINTAIN

- review applications (e.g., for fellowships)
- act as informal community managers

GROW

- represent the community at external events

EVOLVE

- participate in a focus group or other means of in-depth feedback
- serve on a steering committee or other advisory role

COMMUNITY TOOLBOX

Communications

Email
MailChimp
Blog
Twitter
GitHub

Productivity

Google Drive
SurveyMonkey
Qualtrics
GitHub
Wordpress

Community platform

GitHub
Discourse
Discord

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OSHWA
OPEN SOURCE HARDWARE ASSOCIATION

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OUTPUTS & EVALUATION

Success looks like open hardware becoming more ubiquitous and recognized outside of the community. Increased diversity, inclusion, and equity of creators in the community.

Successes over the last year

OSHWA's virtual events ran smoothly with high engagement, and they substantially increased the number of certified projects. They also adapted their methods for collecting data in the face of pandemic challenges.

- **Growth** - entered new domain
- **Activities** - created community outputs together
- **Activities** - an in-person or virtual event
- **Value** - the community stepped up to the challenge of the pandemic in a distributed and asynchronous manner

Evaluation and Reporting

- Reports for community team
- Community member surveys
- Community member interviews

Opportunities

OSHWA hopes to resume in-person events, create more documentation for best practices across various domains, and continue building out the Ada Lovelace Fellowship, which offers financial support to encourage women, LGTBQ+ and/or other marginalized groups in open technology and culture to attend the Open Hardware Summit.

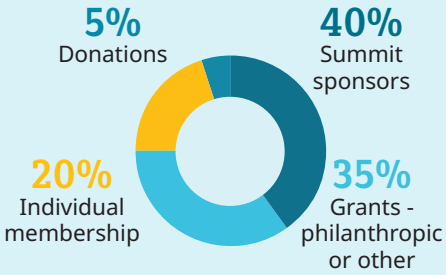
- **Growth** - new working groups
- **Growth** - branch into new domain
- **Growth** - add new members
- **Growth** - increase diversity, equity, inclusion, and justice efforts
- **Activities** - host conference(s) / workshops

Challenges

Lower activity from community members due to the pandemic eliminating in-person events. Human power is a challenge, and compensating both staff and volunteers means funding is a limiting factor.

- Financial sustainability
- Low activity from community members
- Too few staff or volunteers
- Increasing diversity

FUNDING



Funding Streams

- 40% from Summit sponsors
- 35% from the Alfred P. Sloan Foundation
- 20% from individual membership fees
- 5% from donations

Community members can apply for **travel stipends to attend the Open Hardware Summit** *and* **stipends to run community events** *through OSHWA.*

ABOUT THIS PROFILE

This profile is part of a research project conducted by the Center for Scientific Collaboration and Community Engagement (CSCCE) in collaboration with the Science and Technology Innovation Program at the Wilson Center. You can find out more about the project, and view more community profiles, on the CSCCE website.

Information for this profile was submitted by Eric Carlson, Outreach Manager.

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