Event Fund for Data Science
2022 Impact Report

Code for Science and Society

2020 Event Fund Grantee, Pollicy ran DataFest Kampala as a hybrid event focusing on examining the role data plays in every aspect of daily lives. *Image source: Pollicy*

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Summary of Achievements and Significance

In 2019, Code for Science and Society (CS&S) established the Data Science Community Conference and Events Fund to support events that promote inclusion and broaden participation in open data science that drives scholarship. Our mission has been to create an inclusive model for how grants to events are made, using a transparent submission and review process that enables events addressing emergent topics and individuals from historically underserved and underrepresented populations to access support. We have taken a community-centered approach to funding by assembling advisory and selection committees comprised of individuals actively engaged in data science.

Over the three years of the grant, we have accomplished the following:

- Established engaged community-led governance of the fund,

- Developed necessary guidelines and supporting infrastructure to conduct transparent and fair selection of grantees,

- Awarded over $525,000 USD to three cohorts of grantees representing 37 organizing teams hailing from 27 countries across six continents,

- Conceptualized and ran programming for grantees to connect with each other, gain skills training around facilitation of virtual events, developing code of conduct documentation, impact reporting, translation, fundraising, and resource persistence,

- Supported grantees to establish organizational infrastructure to receive grant funding, and

- Secured new Event Fund funding partners including Wellcome and the Chan Zuckerberg Initiative.

As a result of these accomplishments, we have learned that supporting community leaders to execute their data science event goals has significant impacts for individual career trajectories, far-reaching impacts for global science communities, and positive benefits for the field at large. Thus far, we have observed the following emerging impacts:

- **Professional development of data science leaders and lowering barriers to participation for new contributors**
  The Event Fund has offered opportunities for individual career growth and leadership at two scales of impact: first, individuals have noted the new

opportunities for career growth and leadership provided by participating in the Event Fund. Second, the events run by grantees have drawn in new contributors to the field by lowering barriers to participation and connecting people.

- **Normalizing greater inclusivity for the benefit of the field**
  Event Fund sponsored events are shifting global data science practices to be more inclusive of diverse contexts, needs, and local issues. Grantees were unanimous in recognizing the importance that these kinds of funds had in attracting and supporting a more diverse community of participants. Our grantees are also publishing their learnings and speaking at global Data Science events, helping shift expectations and norms in the field.

- **Increased global perspectives in Open Data Science**
  The Event Fund has increased the multi-dimensional diversity of perspectives in and about global open data science. By inviting and investing in people and organizations that have not yet had opportunities to prove themselves, the Fund has supported new voices and communities, helping our funders extend their reach globally. In amplifying experts located around the world in different disciplines, we have also helped our grantees' work to be better publicized to the wider field of data science and raised the profile of their organizations, community and work.

- **Greater organizational capacity**
  The Event Fund helped grantees establish operational capacities that position them to implement their desired future programming. 9 of 12 grantee respondents agreed that they feel better prepared to run more inclusive events in the future because of what they learned from organizing their Event Fund-supported event. As the first funding received by many of the grantees, Event Fund capital helped many to unlock additional funding. Eight of the 12 grantees who responded to the survey had already received additional financial support for their work since the Event Fund grant.

Despite the range of motivations and interests, survey data shows that participants across the different event contexts are inspired to continue working with data and applying event learnings to their work. Perhaps most importantly, event participants leave with a strong sense of being part of a global data science community that they can turn to again in the future. We are excited to begin to document the emerging impacts and plan to continue diversifying the funding for the Event Fund and developing spaces for funders to connect with each other and our grantees for the development of the open scholarship ecosystem.

1. Introduction

When the Moore Foundation awarded a grant to CS&S in 2019 to establish the Event Fund, a core assumption underlying the creation of the Data Science Community Conference and Events Fund was that the data science community can run higher impact conferences and events with a more transparent selection process and increased community input. Over the last three years that we have been establishing the Event Fund, we have come to learn that a community-advised fund for data science offers the possibility for even broader and more far-reaching impacts on the field. Supporting community leaders to execute their data science event goals has significant impacts for individual career trajectories, far-reaching impacts for global science communities, and positive benefits for the field at large.

Icons by Adrien Coquet (idea), Nick Doniguez (community), and Ryo Sato (diversity) from [Noun Project](#).

In the next section, we detail the activities conducted to establish the Data Science Community Conference and Events Fund. Then, we will describe some of the emerging impacts observed from the initial two years of grantmaking. We conclude with plans for the future.

2. Activities Conducted

A) Established community-led governance of the fund

In 2019, Code for Science and Society (CS&S) established the Data Science Community Conference and Events Fund to support events that promote inclusion and broaden participation in open data science that drives scholarship. Our mission has been to create an inclusive model for how grants to events are made, using a transparent submission and review process that enables events addressing emergent topics and individuals from historically underserved and underrepresented populations to access support. We have taken a community-centered approach to funding by assembling advisory and selection committees comprised of individuals actively engaged in data science.

The day-to-day operations of the Fund are managed by CS&S Senior Program Manager, Dr. Angela Okune. The governance, operations, and strategy of the Fund are overseen by an Advisory Committee composed of members recruited from mid to senior levels with complementary expertise and experiences in community organizing, data and information sciences, and fundraising. Event Fund grant funding decisions rest with the Selection Committee. The Selection Committee is composed of open data science champions with proven track records as strong community organizers who promote diversity, inclusion, and accessibility. Members serve for three selection cycles and receive an honorarium for their time.

As a Community-Advised Fund, members from the broader data science community direct the fund's strategy and funding priorities. During the first quarter of 2020, the Event Fund manager assembled and onboarded a six-member Advisory Committee. To fill new open positions on the committees, the Event Fund holds an open nomination period to invite new members to committees. In 2022, we received 27 nominations for open governance slots, demonstrating strong support for the fund from its community members. We have [successfully rotated off and on-boarded new leaders](#) with expertise in data science, international funding, and community building leading to vibrant and engaged advisory and selection committees. The following community members contribute to the Event Fund governance:

Current Advisory Committee Members:
- Stefanie Butland, M.Sc., Openscapes
- Robin Champieux, M.L.I.S., Director of Digital Scholarship and Research Engagement at Oregon Health and Science University (Committee Chair)
- Chris Mentzel, M.Sc., Executive Director, Data Sciences, Stanford University Data Science Initiative
- Dr. Malvika Sharan, Senior Researcher, The Alan Turing Institute, and Co-Director of Open Life Science
- Dr. Raed Sharif, Senior Regional Manager, the SecDev Foundation

- Dr. Tracy Teal, Open Source Program Manager, RStudio

Former Advisory Committee Members:
- Dr. Joshua Greenberg, Director of the Alfred P. Sloan Foundation's Digital Information Technology Program
- Dr. Kari L. Jordan, Executive Director of The Carpentries
- Dr. Micaela Parker, Executive Director for the Academic Data Science Alliance

Current Selection Committee Members:
- Dr. Laura Ación, MetaDocencia
- Gilbert Beyamba, Pollicy
- Dr. Reina Camacho Toro, LA-CoNGA Physics / CNRS
- Dr. Stephen Klusza, Clayton State University
- Kathleen Siminyu, Masakhane Project / Mozilla Fellow
- Dr. Angelique Trusler, The Carpentries
- Dr. Lilly Winfree, data.world (committee chair)

Former Selection Committee Members:
- Stefanie Butland, rOpenSci
- Serah Rono, Spotify / previously The Carpentries
- Dr. Malvika Sharan, Open Life Science
- Dr. Hao Ye, University of Florida

The community governance of the Fund has demonstrated that participatory grantmaking structures support active community engagement and develop an exciting pipeline of new leaders in open data science. The structure provides a pipeline for emerging leaders to take on more active leadership roles within the community. Members on the committee are a mix of former grantees and also "outsiders" to the Event Fund community who bring fresh ideas and networks. The interdisciplinary group has a wide range of expertise ranging from place-based connections to understandings of issues of accessibility and translation. These Event Fund leaders have been integral to building the Event Fund's brand and reputation as a key actor in the open data science ecosystem.

Nine data science leaders have been engaged as Advisory Committee members (2 newly rotated on; 3 successfully rotated off) and 11 emerging leaders as Selection Committee members (6 newly rotated on; 5 successfully rotated off). Processes and documentation have been developed to accompany smooth off-boarding and on-boarding of committee members including mechanisms for receiving feedback to continually improve processes and an orientation for new members including a slide-deck, and Conflict of Interest (COI) signing protocols.

Why do community members want to help grow the Event Fund? Below, Event Fund committee members share why they are passionate about the Event Fund:

"I care about the Event Fund because I believe if knowledge of and funding for technology development were evenly distributed, we would live in a vastly different world. A better one." **(2022 Selection Committee member)**
"I care about the Event Fund because I believe the model and the events it supports foster belonging in spaces that have often been experienced as exclusionary." **(2020-2023 Advisory Committee member)**

B) Developed necessary guidelines and supporting infrastructure to conduct transparent and fair selection of grantees

The early goals of the Event Fund were to bring transparency to the open data science ecosystem and put significant effort into tracking, analyzing, and communicating the impact of our awards on the community. Transparency in grant making processes and expectations is important because it can increase the success of applications from historically underserved and underrepresented populations by making explicit what is often tacitly understood by those with greater experience writing successful grant applications.

Our application guidance and supporting "Ask Me Anything" open sessions for potential applicants (see a summary from the most recent AMA available online here) set clear expectations for how Event Fund applications would be assessed. These expectations were reflected in a detailed selection evaluation rubric which was provided to reviewers.

In preparation for the first call for proposals, in 2019, the Event Fund established a clear review workflow through an open source software (see image below of the Open Review application platform) that facilitated review. Through this portal, at the conclusion of each application cycle, we were able to also provide customized feedback to every applicant which described the strengths and weaknesses of their proposal and how it could be improved. A Conflict of Interest (COI) policy for reviewers, advisors, and the program manager was also established to further establish community trust in a fair process.

The time invested in establishing these various policies and processes has paid off. The latest cycle of grantmaking most clearly demonstrated the maturation of our community-governance when the selection committee and advisory committee had a productive debate which included several rounds of voting to come to agreement on the final shortlisted awardees. The Program Manager carefully facilitated the dialogue between the two committees and leveraged the documentation and established processes to facilitate the collegial exchanges which ultimately led to a stronger slate of awardees.

C) Awarded over $525,000 USD to three cohorts of grantees representing 37 organizing teams hailing from 27 countries across six continents

We released the first request for proposals in June 2020 which focused on virtual events that improve or connect research-driven data science tools, practices, and the communities themselves. Proposals were asked to demonstrate the educational and scientific purposes of the event (or series of events) and specifically how it advances Code for Science and Society's goals to create inclusive knowledge-sharing spaces and support the development of diverse leaders.

After receiving the applications, the Event Fund manager conducts an initial review of all applications to ensure completeness and eligibility. Following this, she assigns applications to the Selection Committee via the OpenReview portal. Each application is reviewed separately by two different members. Selection Committee members have a month to review their assigned applications following which the Program Manager reviews all of the completed reviews. The manager compiles an initial short-list based on the Selection Committee reviews and presents this back to the Selection Committee as the basis for live discussion. The live discussion meetings focus on the strengths and weaknesses of the applications and result in a finalized short list which is then submitted to the Event Fund Advisory for review. In a separate meeting with the Program Manager, the Advisory Committee discusses the submitted short-list and either approves or raises questions for the Selection Committee. Following this process, the first cohort was announced in January 2021. The second and third cohorts were determined using the same process (with iterative improvements) and were announced in September 2021 and June 2022 respectively. The full list of funded grantees can be found in Appendix D.

The Event Fund allows and encourages grantees to apply for funding to support aspects of event organizing that are typically not supported such as childcare reimbursements, translation, and internet costs of participants. Such funding support has proved critical to lower barriers for participation for new entrants to the field of data science, especially for those from marginalized backgrounds.

	Cohort 1 (2020)	Cohort 2 (2021)	Cohort 3 (2022)	Total
Applications received	31	37	45	
Countries represented in applicant pool	12 countries	18 countries	38 countries	
Continents represented in	5 continents	6 continents	6 continents	

applicant pool				
Grants given	13	11	13	37
Total Distributed	$211,808	$140,555	$175,001	$527,364
Median Size of Grants	$18,615	$13,000	$14,800	$15,471.64
Countries represented in awardee pool	Canada, US, Argentina, UK, South Africa, Uganda, New Zealand, Germany, France, Brazil, Rwanda, Nigeria, Ireland, Italy, Costa Rica, Morocco, Mexico	Canada, Switzerland, US, Argentina, Kenya, Indonesia, Sweden, Colombia, India	12 countries including Turkey, South Africa, USA, UK, Indonesia, Argentina, Ecuador, Uganda, Indonesia, India, Malaysia, Brazil, and Pakistan	27 unique countries where organizers located

D) Hosted grantee programming and produced public resources

In addition to financial support, the Event Fund offered grantees training and networking opportunities so they could better run diverse, accessible and inclusive Open Science projects and events. These trainings expose grantees to new ideas and ways of working not only for the running of events, but also of data science and ways of understanding the field.

In 2021 and 2022, the Event Fund Program Manager hosted a regular seminar series for grantees to connect with one another to build new bonds with other data science event organizers. These events also strengthened their skills in multiple aspects of event organization and implementation. The format for these gatherings ranged from open-ended community forum discussions, office hours with the Event Fund manager, to formal panel discussions with external guests. Topics ranged from community call facilitation, operational mechanisms for receiving grant money, and identification of community values and how to imbue values into events including technology platform choice. During the award period, over 12 seminar trainings were hosted. The 2022 program and description of seminar events can be found here. Summary blog posts of the sessions are publicly shared on the Event Fund blog which has been a key means to disseminate information about the Event Fund. Since the establishment of the site in early 2020, there have been over 10,000 unique visitors and 23,500 page views (see image below).

Event Fund Site Analytics

UNIQUE VISITORS
10.4k

TOTAL PAGEVIEWS
23.5k

BOUNCE RATE
66%

VISIT DURATION
1m 48s
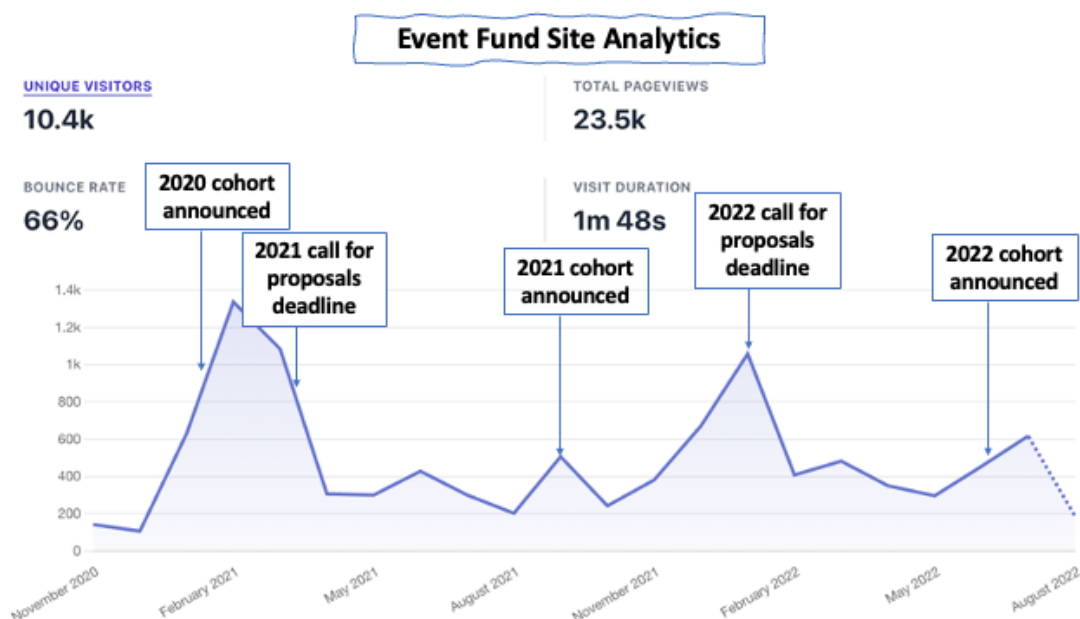
Event Fund grantees and committee members have acted as advocates for the Event Fund and helped to widely promote it. The Event Fund manager has also delivered invited talks to the R Consortium, The Center for Scientific Collaboration and Community Engagement, eLife, The Carpentries, and Open Life Sciences to raise awareness about the Event Fund. There are several blog series hosted on the Event Fund site such as an interview series with organizers who transitioned their traditionally in-person events online and a "behind the scenes" series that highlighted the labor, technologies, and planning processes required to run excellent events. We also hosted five webinars about the Event Fund to inform potential applicants when there were open calls for applications. These types of outreach activities have continued to help raise the Fund's profile in the field of Data Science.

E) Supported grantees to establish organizational infrastructure to receive grant funding

Conferences and events in research-driven data science are often community organized, frequently change location, and depend on support via smaller donations from multiple funding sources. For funders, challenges to supporting this space include the labor and resource strain of handling vetting and reporting for small grants. This can lead to a process that is opaque and lead to decisions that favor well-known and established projects. This has traditionally made it difficult for newer communities, events addressing emergent topics, and those growing out of marginalized groups, to access support. In many cases, event organizers need to understand this process and have a direct connection to a program officer to have a chance of accessing support.

The Event Fund was established to address process constraints in the current system, and also create a more inclusive and sustainable model for how small grants to events are made. As part of our work, we support and demystify funding processes for newer communities so that they can establish the necessary organizational infrastructure and knowledge to better receive grant funding. For example, in early 2022 we hosted a panel discussion for grantees on various [operational ways to receive and administer grant money](). We also offered template letters for short-listed grantees to help increase transparency around funder protocols and processes such as due diligence so that new organizations are better prepared and able to provide necessary documentation required to receive funding.

We have explained and helped cultivate best practices amongst our grantees such as requests for no-cost extensions and budget reallocation requests which are often confusing for first-time grantees. As a result of such open communication and explicit focus on preparing our grantees to receive future funding, several have gone on to receive follow-on funding from bigger funding partners as we will explain in [Section 3D]().

F) Secured new Event Fund funding partners including the Wellcome Trust and the Chan Zuckerberg Initiative

During years two and three of the Moore grant award, the Advisory Committee and Event Fund manager focused on developing our fundraising strategy to increase financial contributions from other data science funders. The Event Fund manager held several meetings with advisory committee members and CS&S staff in 2021 and 2022 to identify potential funders. We also leveraged aggregate summary statistics of our applicants, awardees, and impact of events to share with potential funders.

As a result of these efforts, in 2022, the Chan Zuckerberg Initiative (CZI) came on to support the Event Fund with a gift of $60,000 USD received in February 2022 and a subsequent gift of $100,000 USD received in June 2022. Further, a contract with Wellcome Trust was signed in September 2021 for $119,875 USD (and an additional commitment of $80,000 USD in grants to Event Fund projects who participated in the programming while their grants were directly administered by Wellcome). We continue to be in conversation with new potential funding partners.

Feedback we have received is that the broad reach of the program has actively extended the networks of our funding partners in a positive way. Several of our partners have decided to directly invest in previous Event Fund grantees. We have realized that our approach of working in-depth with grantees, developing cohorts of grantees for peer-support, and supporting grantees through what is often their first grant de-risks investments in emerging leaders for funders. What began with one seed grant from Gordon and Betty Moore therefore is now a proven program with support from the Wellcome Trust and CZI.

2021 Event Fund Grantee Ni Kadek Dita Cahyani (Yayasan Biodiversitas Indonesia) is running events with young researchers in Eastern Indonesia to facilitate collaborative analysis of molecular data. *Image source: Ni Kadek Dita Cahyani (Yayasan Biodiversitas Indonesia)*

3. Event Fund Impact

In 2020, the Advisory Committee and Event Fund manager developed an impact assessment plan to track the impacts of grantees and their events. The plan included dissemination of a survey for grantees to administer to their event participants as well as an end-of-grant survey for grantees themselves. Results from the administered surveys, one-on-one discussions with grantees, and a focus group discussion with invited grantees are shared in the following section which highlights the early impacts observed from the first three years of the Event Fund. These results will be used to improve the program, share our impact with potential future funders, and inform the broader data science community of the Fund's impact.

Evaluation Methods

in-depth one-on-ones with grantees (n=16 grantees)

end-of-grant survey for grantees
(n=12 grantees)

grantee-administered survey for all event participants
(n=178 across 15 events)

review of final grantee reporting (n=19 reports)

Icons by Prashanth Rapolu (interview), tezar tantular (survey), Mello (teamwork), and Alzam (report) from Noun Project

The findings below largely reflect the first two cohorts of grantees (2020 and 2021). There are 13 events that comprise the third cohort of grantees which were recently awarded in June 2022. These projects have thus only just begun planning for their events. The events have not yet transpired and we are looking forward to observing and reporting on their impacts in the future.

The Event Fund is funding…and so much more

The Event Fund offers grant funding for groups to conceptualize and execute their event idea. As one grantee mentioned:

> *"The Event Fund is ahead of its time. I've been doing community work for so long and it has always been so hard to get even $500 for food for events, let alone fiscal support for organizer time. Support for events and organizer time is still so scarce and important." (2020 Event Fund grantee)*

The financial support to cover costs associated with the event is a key value of the Event Fund. However, in addition to the financial support to cover event costs, the grantee survey administered at the end of their grant revealed that Event Fund grantees found immense additional benefits to the Fund. These additional benefits included connections to other opportunities, training and skills-building, connections to relevant communities, and information and shared knowledge resources.

What aspects of the Event Fund were most helpful for supporting your work? (select all that apply)

42 Responses

information and shared knowledge resources
19%

financial support to cover costs associated with the event
26%

connections to relevant communities and people
19%

connections to other opportunities
17%

trainings and skills-building as a result of workshops/seminars
19%
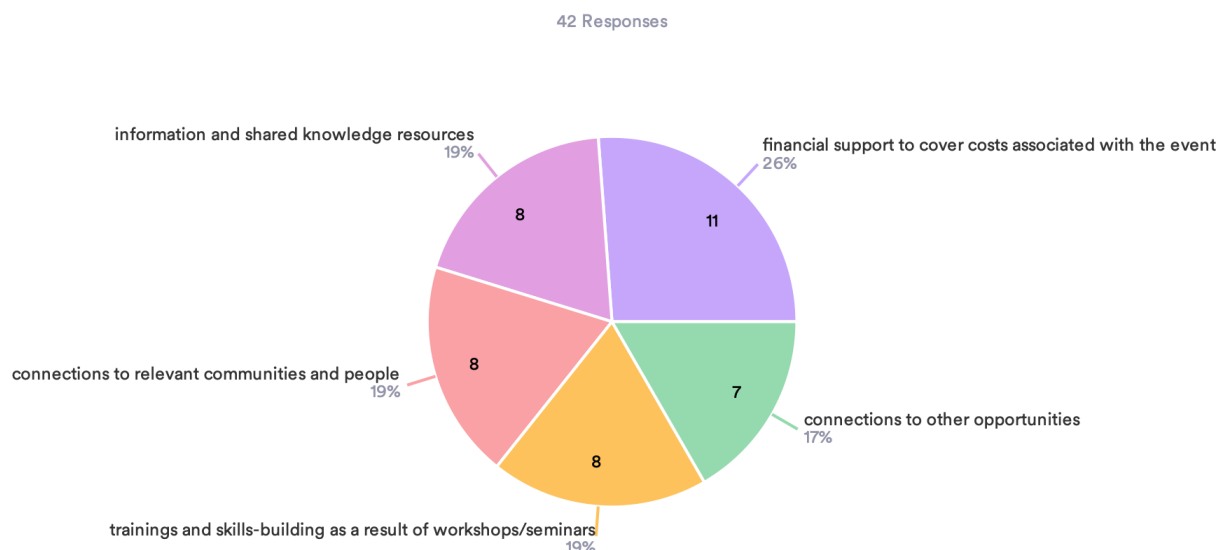
> *"The Event Fund gave us much more than money. It allowed us to meet other communities and similar initiatives; it gave us space to support each other among these communities and learn together to achieve our goals. I would also like to highlight that [grant] proposals for our region often come from people who do not live or are not native to the region. In our case, **CS&S was the first organization that trusted us and supported us** so that we could carry out our activities, supported a proposal born and executed by Latin Americans for Latin Americans, respecting and **valuing local talent and knowledge**." (2020/2021 Event Fund Grantee)*

A) Professional development of data science leaders and lowering barriers to participation for new contributors

The Event Fund has offered opportunities for individual career growth and leadership. We have noted two scales of impact. First, the Event Fund directly invests in individuals and opens new opportunities for career growth and leadership. Second, the events run by grantees help to draw in new contributors to the field by lowering barriers to participation and connecting people

One observed trajectory for leadership provided by the Fund structure has been moving from being a grantee to becoming a member of the selection committee as Dr. Laura Acion has done, as well as moving from the Selection Committee to joining the advisory committee as Dr. Malvika Sharan has done.

> On me **personally, Event Fund unlocked a gazillion new doors I am still exploring**. Most importantly, **it makes me feel like I belong in the "first league" of science and that my voice matters**. (2020/2021 Event Fund Grantee)

> One personal story that may help is that **I have been working since 2011 to obtain and execute as a Primary Investigator international funding from Argentina for several data science projects. The Event Fund was the first significant funding I got that fulfilled this goal. It also opened the door to receive an order of magnitude more funding the following year** and become the PI I aimed at in 2011. (2020/2021 Event Fund Grantee)

Individual careers have also benefited from demonstrating their success at receiving grant funding. A 2020 grantee noted:

> This is the first funding opportunity that I personally applied for, and it was very exciting to get it! It was really meaningful to me to be primary on a grant, and very timely, as I applied (and was accepted) to a graduate program in data science shortly thereafter, and I was able to list this on my CV! On the strength of both and other work, I'm now working as a Civic Science Fellow. (2020 Event Fund Grantee)

Beyond the grantee career growth, the events they have run have fostered a new generation of data science learners. A unique and important characteristic of the Event Fund is the wide diversity of event formats, disciplines, and approaches taken by its grantees.

Diversity of Event Fund Events

Of the 178 event participants (across 15 different events) who completed the survey, the vast majority of them identified as affiliated with academia (graduate students, faculty, undergraduate students, postdoctoral researchers, or research staff).

79% of participants who responded to the survey stated that they had been in their current role for 0 - 5 years.

79%

n=177

Of the survey respondents who responded to the optional question, 48% of participants identified as men and 52% identified as women. 49% of survey respondents declined to provide their gender identification.

48% identify as men

52% identify as women

n=91

There were not enough responses to gauge racial, socioeconomic, or religious diversity of event participants, however, there were a handful of respondents who self-identified as underrepresented along ethnicity, nationality, religion, gender identity, and skin color. Participants resided in over 46 unique countries (see image below for greater detail).

finland **usa** netherlands
brazil ecuador
colombia **argentina** austria
indonesia nigeria ethiopia spain
norway sweden india poland **kenya** france
costa cameroon italy denmark
czech_republic pakistan germany ireland
romania the_gambia peru rica
venezuela morocco canada malawi
nepal australia mexico uganda iran
belgium
uk saudi_arabia ghana south_africa
el_salvador new_zealand

Caption: Event participants who responded to the administered survey (n=178) resided in over 46 unique countries including the USA, Argentina, Kenya, India, Nigeria, Germany, Brazil, Indonesia, and Venezuela, among others.

Many of the supported events included a teaching and learning component. Some focused on foundational coding and data science skills (e.g. Carpentries Connect; Data Umbrella; MetaDocencia; Open Life Sciences; Evidence Synthesis and Meta-Analysis in R) and others focused on translational science and interdisciplinary collaboration in data (e.g. Open Problem Workshops; DataFest; Data Science by Design). While all grantees had a focus on increasing the inclusivity and diversity of their events, several had an explicit emphasis on social justice and equitable access (BlackinX: Empowering Black Data Science Leaders from PhD to Policy; Data Viz Accessibility Education Event for the #TidyTuesday Twitter Learning Community). A full list of grantees and project descriptions can be found on the Event Fund website.

Some of the disciplinary focus areas represented in the events included:

Environmental science, conservation, and biology
- [Environmental Enforcement Watch](#);
- "Reproducible Silicon Landscapes": a Community of Practice around [Computational Research in Geomorphology](#);
- [Culturally Relevant Education in Environmental Data Science (CREEDS) Workshop](#));
- [Openscapes](#), championing open practices in environmental science to help uncover data-driven solutions faster.
- [Lessening the Gap: Nurturing Access for Young Researchers in Eastern Indonesia to Analyze Molecular Data](#)
- [Open Environmental Data Project: "Design Workshops for Accessible, Usable, and Inclusive Environmental Data Sets"](#)

Infectious Disease and Public Health
- [Bringing data science and AI/ML tools to infectious disease research](#)
- Diversifying Science & Social Studies Teachers: Data Literacy Skills through Climate & Health

Bioinformatics
- [Bioinformatics Virtual Coordination Network](#)
- [Community of Bioinformatics Software Developers](#)
- [Bioinformatics Hub of Kenya](#) / [Open Science Kenya](#)
- [Mentored, Open Research Experiences (MORE)](#)
- [Women in Bioinformatics and Data Science Latin America: Conference and Boot Camp](#)
- Colloquium on Bioinformatics Learning, Education and Training (CoBLET)

Physics
- [LA-CoNGA physics Hackathon: Latinoamerica en Open Data](#)

Disciplines represented include: Math, Earth Science, Environmental Science, Biology, Agriculture, Biomedical, Computer Science, Education, Social Science, Genetics

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Participant Motivations

There have been a wide range of motivations to attend data science events. In some of the event communities, attendees are keen to become data science professionals. As one grantee mentioned, "if I let it go unchecked, nearly every conversation will inevitably turn to 'how do I get a data science job?'." Many Event Fund-sponsored events therefore provide networking and

opportunities for leadership and professionalization including as data science speakers, members of the organizing team, and facilitators.

In other cases, the Event Fund has supported events where community members are more interested in strategically leveraging the power of data for the change they want to see in the world. As one grantee shared with us, in environmental justice, the concept of double burden speaks to people who are already marginalized and already disproportionately suffering harms and then the second burden usually placed upon them is the burden of proof, where they have to then tell their story in a way that will be believed. She explained during a discussion about their event's impact:

> *"People aren't coming to us to learn data science, we are going to local environmental justice communities to say **we can enable you with data.** … because even though they've been living [with the double burden] and they know what the problems are … **they need data to legitimize their experiences**. So we have a use case much more than we have a tool. Folks are engaging with us because **they really need to know something** in order to defend themselves and their communities against environmental burdens."* (2020 Event Fund grantee)
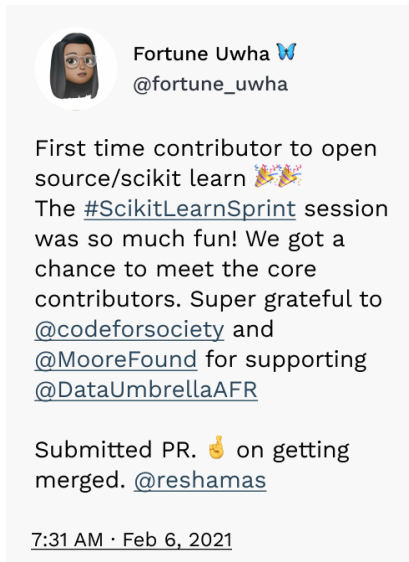
In a survey conducted of participants who attended the various Event Fund sponsored events:

85% felt like they were part of a greater open data science community.

71% were inspired to make changes to their own work as a result of attending the event.

79% gained confidence working in open data science by attending the event

Out of 178 survey respondents across 15 Event Fund-funded events.

Thus, despite the range of motivations and interests, participants across the different event contexts are inspired to continue working with data and applying event learnings to their work. Perhaps most importantly, event participants leave with a strong sense of being part of a global data science community that they can turn to again in the future.

> *"The experience was amazing and worth it. I really learnt a lot and hopefully will keep up on working on more OS. Love the diversity and networking that comes along with and am proud to have collaborated with my pair and contribution on the OS. Thank you for the great platform."* (A participant at the Event Fund-supported Africa Middle East 2021 Scikit Learn Sprint run by Data Umbrella in February 2021)

Another event attendee stated [in a Tweet](#):

> **Fortune Uwha** 🦋
> @fortune_uwha
>
> First time contributor to open source/scikit learn 🎉🎉
> The #ScikitLearnSprint session was so much fun! We got a chance to meet the core contributors. Super grateful to @codeforsociety and @MooreFound for supporting @DataUmbrellaAFR
>
> Submitted PR. 🤞 on getting merged. @reshamas
>
> 7:31 AM · Feb 6, 2021

B) Normalizing greater inclusivity for the benefit of the field

Event Fund sponsored events are shifting global data science practices to be more inclusive of diverse contexts, needs, and local issues. People need money, time, and focused effort to run great events. Despite the importance of fostering dialogue within and across scientific networks, the time and organizational labor required to catalyze and sustain communities of practice is often undervalued and under-resourced. By offering financial support and training to data science leaders, Event Fund is changing the field of data science by encouraging and normalizing more inclusive practices in the data science landscape.

10 of 12 grantee respondents agreed that:	"My event included a more diverse group of participants because I was supported by the Event Fund."
9 of 12 grantee respondents agreed that:	"This grant allowed me to pay volunteers that I previously could not."

Many data science events (and events in general) are run by volunteers who "give away their time" as one grantee put it. However, the pandemic exacerbated pressures on many of these individuals and created situations where people could not offer up their volunteer labor as they previously did. Across the board, grantees were grateful to be able to pay their volunteers and students for their efforts.

> *Being able to pay for the time of volunteers and students changes the event, especially during the pandemic, where a lot of people were overbooked with online activities. Furthermore, seeing the diversity of students that this edition of the*

event reached gave us great pleasure, hoping that the school's curriculum can be used in several institutions around the world." (2021 Event Fund Grantee)

In addition to the time of volunteers and staff, events found real value in the flexibility and willingness of Event Fund to support non-traditional budget line items such as mobile Internet data provided to participants, childcare reimbursements, and funds to purchase technology equipment such as headphones:

"Without the mobile internet data [provided to participants that could not have otherwise afforded to join the virtual event], this event would have been so hard to run in a manner that was equitable and inclusive. The amount of the grant is significant in South African Rand and especially to support an event [that is often hard to get funding for] so we are really grateful. This event really set the bar high and it will be hard to follow it up." (2020 Event Fund Grantee)

Grantees were unanimous in recognizing the importance that these kinds of funds had in attracting and supporting a more diverse community of participants.

The diversity and inclusion focus of the grant made space for us to work on a much stronger code of conduct, and to do more specific outreach to communities we might otherwise not have reached. (2020 Event Fund Grantee)

This was a way to experiment with new partners and a new event duration, and to invite participants from diverse institutions and backgrounds. (2020 Event Fund Grantee)

Event Fund grantees are also publishing their findings and reflections about the kinds of methods that work to improve diversity and collaboration at their open data science events.

We wrote a white paper on cross-disciplinary projects which we have already received feedback that it will support groups that are doing work in cross-disciplinary environments. (2020 Event Fund Grantee)

See as just a few examples, the following journal publications and reports by grantees:

- Joo, Rocío, Andrea Sánchez-Tapia, Sara Mortara, Yanina Bellini Saibene, Heather Turner, Dorothea Hug Peter, Natalia Soledad Morandeira, et al. 2022. "Ten Simple Rules to Host an Inclusive Conference." PLOS Computational Biology 18 (7): e1010164. https://doi.org/10.1371/journal.pcbi.1010164.

- Tully, B. J. et al. The Bioinformatics Virtual Coordination Network: An Open-Source and Interactive Learning Environment. Frontiers in Education (2021).

https://doi.org/10.3389/feduc.2021.711618
https://www.frontiersin.org/articles/10.3389/feduc.2021.711618/full.

- Blili-Hamelin, Borhane, Duckles, Beth M., & Monette, Marie-Ève. (2022). Toolkit for Cross-Disciplinary Workshops (Version 1). Zenodo. https://doi.org/10.5281/zenodo.6026972.

- Gownaris, N.J., Vermeir, K., Bittner, M.-I., Gunawardena, L., Kaur-Ghumaan, S., Lepenies, R., Ntsefong, G.N. and Zakari, I.S., 2022. Barriers to Full Participation in the Open Science Life Cycle among Early Career Researchers. Data Science Journal, 21(1), p.2. DOI: http://doi.org/10.5334/dsj-2022-002.

By conceptualizing, successfully running, and disseminating learnings from thoughtfully organized data science events, grantees are shifting norms in the field related to hosting academic gatherings. While it is still early to report on how these Event Fund grantees' learnings and practices are being taken up more broadly, initial observations suggest that many of these practices like sharing guidelines for participation, offering child care reimbursements, and opportunities to co-design conference agendas are being normalized and increasingly expected.

C) Increased global perspectives in Open Data Science
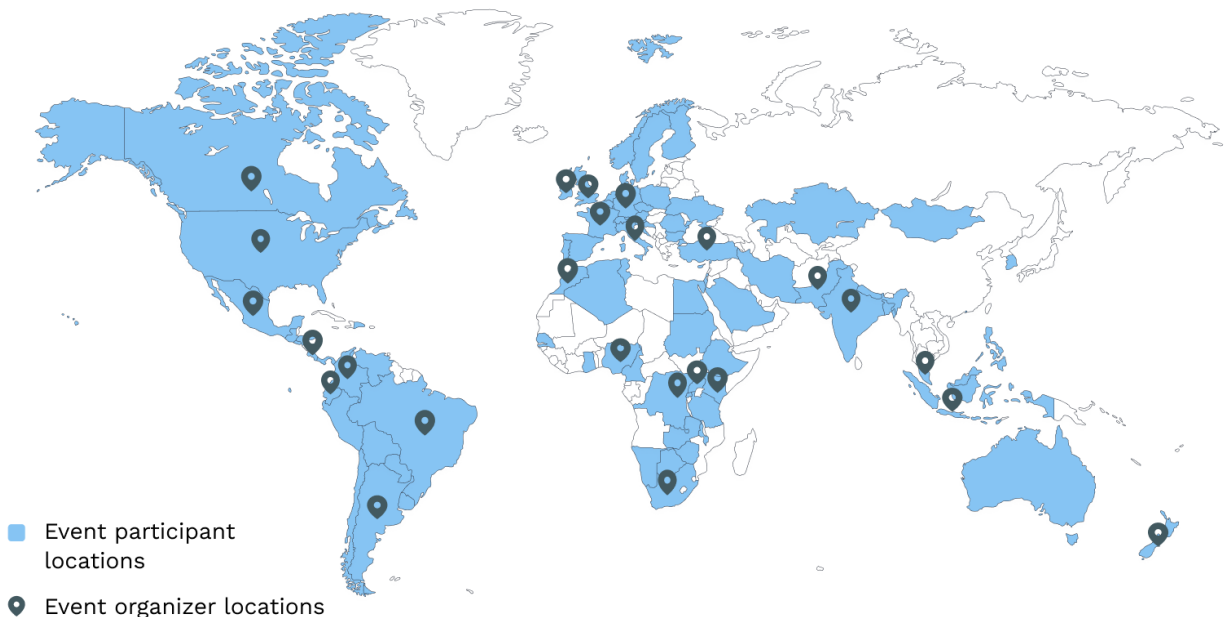
The Event Fund has increased the multi-dimensional diversity of perspectives in and about global open data science. By inviting and investing in people and organizations that have not yet had opportunities to prove themselves, the Fund has supported new voices and communities, helping our funders extend their reach globally.

By amplifying experts located around the world in different disciplines, we have also helped our grantees' work to be better publicized to the wider field of data science and raised the profile of their organizations, community and work. For example, Event Fund grantee Caleb Kibet was recently invited to speak at the Open Access Scholarly Publishers Association (OASPA) webinar on "Normalizing Open Research practices via grassroots community-building" (June 29, 2022), illustrating the reach that Event Fund grantees are having to a broader audience. Kibet's colleague, Festus Nyasimi (see image below) was also invited to present on their work with the Bioinformatics Hub of Kenya at Intelligent Systems for Molecular Biology (ISMB) 2022 in Madison, Wisconsin. Event Fund community members have mentioned that they turn to the list of Event Fund grantees when selecting speakers for events they are organizing (see for example several speakers of the [Turing Way Fireside Chats](#) who come from the pool of Event Fund grantees).
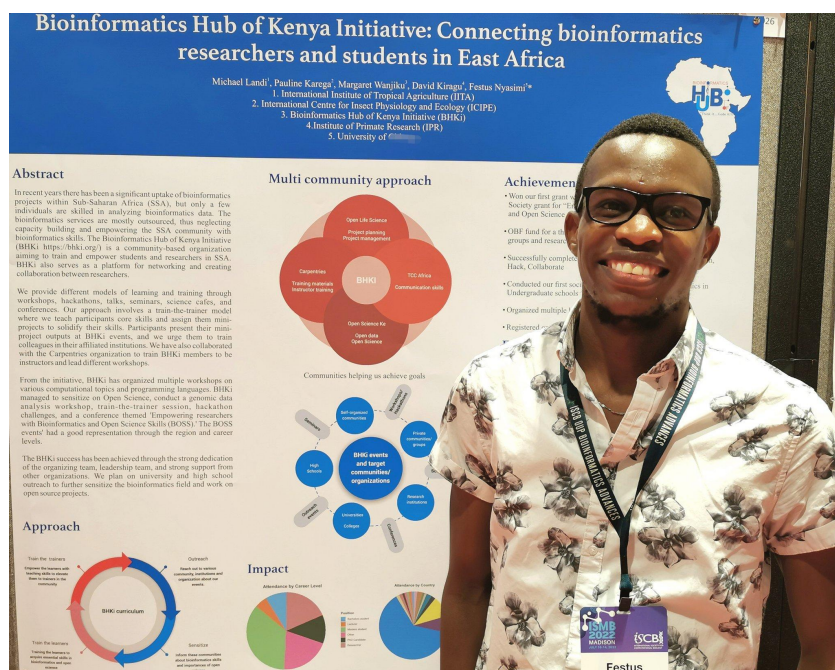
Caption: Festus Nyasimi of the Bioinformatics Hub of Kenya presenting at the Intelligent Systems for Molecular Biology (ISMB) 2022 in Madison, Wisconsin. Source: https://twitter.com/Festus_nyasimi/status/1547547465737437184

7 of 12 grantee respondents agreed that:	"I have a better understanding of the organizations and funders working in global Open Data Science ecosystem because I was part of the Event Fund."

The intimate cohort-based approach to Fund allowed for stronger bonds to be formed during the duration of the grant and created opportunities for grantees to learn about each others' work. A majority of grantee respondents agreed that they met new people and organizations in open data science because of their Event Fund grant that they plan to keep in touch with moving forward.

Nearly a quarter of grantees who participated in our end-of-grant survey mentioned that they had learned about work by a new organization that they had never heard of before. Over half of the respondents mentioned being exposed to a new theory or way of seeing the world as well as learning about new issues in open data science that had not occurred to them before.

> *Seeing reports from organisations like Pollicy [another Event Fund grantee] seriously gave meaningful backing for the need to give better Lower Middle Income Country support than currently exists and to try to avoid being an awful "good washing" High Income Country/white saviour. (2020 Event Fund grantee)*

> *Being able to know about how similar organizations around the world work was very useful. As a person who moved from a Latin American country to the US for work,* ***I thought I had a clear picture about how the open data community worked both in the Global South and in the US. I was wrong,*** *I learned a lot from how communities in the Global South recruit members, and how they have access to funds that allow them to have more stable communities. Also, CS&S conversations made me realize how important it is to recognize the volunteer work from all the people, but especially from minoritized groups, to make their participation sustainable. (2021 Event Fund grantee)*

> *I expected the event fund to fund an event. It did that. But the community is the frosting on the cake. (2020 Event Fund grantee)*

D) Greater organizational capacity

The Event Fund helped grantees establish operational capacities that position them to implement their desired future programming. First, Event Fund grantees appreciated the direct training offered by the program:

9 of 12 grantee respondents agreed that:	"I feel better prepared to run more inclusive events in the future because of what I learned from organizing my Event Fund-supported event."

See additional feedback received from the seminar series below.

Caption: Survey feedback received from 2022 Event Fund Seminar Series events for grantees.

Second, grantees noted that the flexibility of the funding, being able to pay for costs that are often not allowed in traditional grants such as volunteer stipends, costs for language translation and accessibility accommodations, etc. enabled greater investment in organizational capacity for those within small nonprofits. This flexibility also helped set precedent for future funding by helping to question the justification for existing norms around funding.

Flexible, grantee-driven budget-making can be transformative. For example, one grantee working within a large university noted that the openness of the Event Fund funds catalyzed an organizational conversation about how to establish new mechanisms to allow those typically unable to access funds (in this case, undocumented students) to remove such barriers. The grantee wrote:

> *The flexibility of the Event Fund grant allowed us to open our event to students who are normally not allowed to participate. All of the other funds that have been available to us -- federal (NIH/NSF) grants and institutional funding derived from state legislature-appropriated funds -- do not allow us to pay stipends to undocumented students. Being able to remove that barrier was incredibly impactful, not just in helping us to make our program more inclusive, but also in forcing our research administration to create mechanisms to pay stipends to students who the university says are not "allowed" to receive them. This paves the way for future programs to do the same. (2021 Event Fund grantee)*

Over half of the grantees who responded to the end-of-grant survey mentioned being able to develop organizational/financial/operational skills for growing their organizations as a result of the programming and interactions with Event Fund staff and community.

We were able to invest in DEI practices and continued learning in a way that supports us beyond the length of the event fund grant. (2020 Event Fund Grantee)

Finally, as the first funding received by many of the grantees, Event Fund capital helped to unlock additional funding. As illustrated below, of the 12 grantees who responded to the survey, eight had already received additional financial support for their work since the Event Fund grant.

67%
received additional financial support after EF grant

n=12 grantees
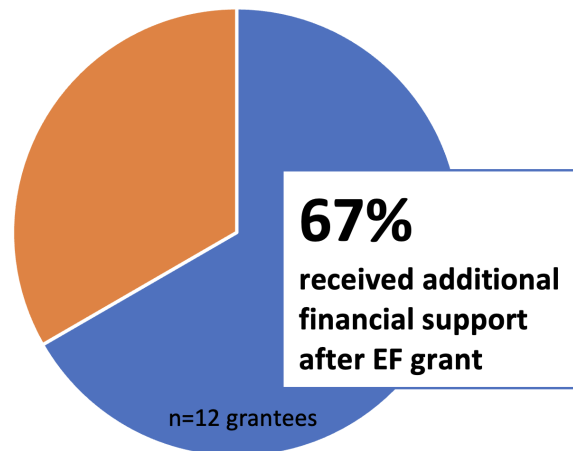
We've just heard that we've now received our fourth organisation donation (people can donate a registration fee to pay it forwards for support for someone else at next year's event), and that we've secured 10,000 USD for ESMARConf2024 and 2025, which is AMAZING! So we'll already have some budget to get several more years in the calendar and more time to secure accessibility funding from elsewhere.

Thanks so much for providing us with funding to raise our accessibility ambitions and get the ball rolling - I can't tell you how much this means! This year we've had over 1,100 watch the conference materials on YouTube and c. 4,500 views to date. We had people from 86 countries, which is so cool! I think the most amazing bursary story was for someone asking to hire a diesel generator and mobile internet from Nigeria...

The feedback we've received in our evaluation from participants has been so great - and lots thanking and acknowledging the funding and accessibility, so I can't wait to share more of that with you.

In addition to helping already established organizations to further their organizational growth, we have also supported individuals to move towards setting up a more sustainable foundation for future growth and work. For example, six grantees established a new relationship with a fiscal host that set them up to transparently receive and spend their grant monies moving forward. The Event Fund played a significant role in helping grantees establish and/or grow their

operational infrastructure to enable easier receipt of future grant monies and further their future work.

4. Future Directions

In 2022, we know that extractive models of science, where a foreign expert jets into a site to collect data, trains the local community on "best practices" (if that) and then flies out, are still unfortunately common. But we also know that alternatives to such models of research and scientific practice are possible. Such alternatives – science that is regenerative and sustaining for communities and society – require investment in new practices, community infrastructure, and ways of working together. The Event Fund has invested in growing community capacity to leverage data to shift power.

Insights on Broader Impacts from the Event Fund

Over the last three years, we have established a globally connected network of data science leaders working to meet the needs and desires of their local communities. Event Fund has gained a strong reputation for providing substantial and holistic support for emergent leaders in the open data science field, allowing recipients to not only realize their event goals, but also to join global conversations and make new connections across communities. We've gained some key insights on broader impacts and possibilities based on our experiences these last few years:

Participatory grantmaking structures can support active community engagement and opportunities for leadership.

The community governance aspect of the Fund has demonstrated that under the right conditions, participatory grantmaking structures can support active community engagement and develop an exciting pipeline of new leaders in open data science. For example, after two years of strong community engagement, in March of 2022, we received 27 nominations for newly opened governance positions with the fund, demonstrating strong support from the community. As a result, we successfully rotated 2 new members onto our Advisory Committee and 6 new members onto our Selection Committee. Such processes for regular refreshing of governance body membership helps to keep the fund tapped into diverse community needs and connected to the shifting landscape of open data science globally.

Moving forward, we are interested in supporting more discipline-specific communities of practice, and testing out new models of participatory grant-making structures to better understand the conditions under which these models can best activate communities.

Grantee-driven budget making can catalyze structural change for marginalized communities.

The openness of the Event Fund funds demonstrated that flexible, grantee-driven budget-making can be transformative for under-represented and marginalized communities. For example, one grantee working within a large university noted that the flexibility of the Event Fund funds allowed them to pay stipends to "students who are normally not allowed to participate" (in this case, undocumented students), which catalyzed an organizational conversation about how to establish new mechanisms and remove such barriers. The Event Fund grant forced the grantee's research administration to create mechanisms to pay stipends to students who the university says are not "allowed" to receive them, setting new precedence and paving the way for policy change.

In future work, we are interested in better understanding the conditions under which such grantee-led budget-making can lead to transformative change and testing how different flexible budget-making processes and grant-making workflows bring policy and procedural changes that benefit marginalized communities.

There is not one "best" way to run an inclusive data science event.

A unique and important characteristic of the Event Fund is the wide diversity of event formats, disciplines, areas of expertise of participants, and understandings of data science as taken by its grantees. Such multidimensional diversity highlights the need for multidimensional practices of accessibility and inclusion. There is not one "best" way to run an inclusive data science event; one perspective, practice, or approach is inadequate for the complex technoscientific challenges we need to address. We invest in data science leaders so they have the time and resources necessary to think about and run the kind of deeply contextualized events that are responsive to local community needs.

We look forward to drawing on our learnings from the Event Fund to experiment with more participatory grant-making models that establish sustainable communities of practice.

Next Steps

We plan to continue diversifying the funding for the Event Fund and developing spaces for funders to connect with each other and our grantees for the development of the open scholarship ecosystem. We are in conversation with potential partners concerned with equity and diversity in research and are excited to continue to explore new models for giving away power and money. We look forward to connecting with mission-aligned partners.

	2020 cohort	2021 cohort	2022 cohort	PROJECTED 2023 cohort
Total Disbursed	$211,808	$140,555	$181,870	$245,000
Number of	13	11	13	15

Awards				
Average Size of Grant	$16,293	$12,778	$13,990	$16,333

Community growth, organizational capacity, and collaborations for better data science

In early 2022, we reviewed and revised the aims of our impact evaluation to include metrics to evaluate the development of grantee and their community capacity to run inclusive events, obtain future funding to support their organizational missions, and use data science in locally relevant and contextualized ways. This reflects our interest in continuing to invest in the careers of individuals and growth of their community's diverse data capacities.

We are also keen to continue expanding the availability of public information and resources on running more inclusive Open Data Science events. Event Fund-supported events illustrate the wide diversity of ways that communities can more intentionally invite historically underrepresented and marginalized groups to join and become leaders in the field. We have learned there is not one "best" way to run an inclusive data science event, rather, we need to invest in data science leaders so they have the time and resources necessary to think about and run deeply contextualized events grounded in their own community's needs. We look forward to continuing to support the building of new connections across diverse emerging leaders around the world and documenting the cascading impacts of the Event Fund.

For any inquiries or questions, contact:

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