

2023 Annual Report



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ABOUT ORCID

ORCID's mission is to enable transparent and trustworthy connections between researchers, their contributions, and their affiliations by providing a unique, persistent identifier for individuals to use as they engage in research, scholarship, and innovation activities.

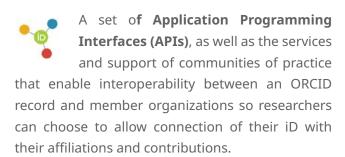
We do this by providing three interrelated services:



The ORCID iD: a unique, persistent identifier free of charge to researchers



An **ORCID record** connected to the ORCID iD, and





ORCID is a global, not-for-profit organization sustained by fees from *our member organizations.* We are community-built and governed by a Board of Directors representative of our membership with wide stakeholder representation. ORCID is supported by a dedicated and knowledgeable professional staff.

Learn more about ORCID's staff.

Our Vision

ORCID's vision is a world where all who participate in research, scholarship, and innovation are uniquely identified and connected to their contributions and affiliations across disciplines, borders, and time.

Our Values



OPEN

Our work is open, transparent, and non-proprietary.

TRUSTED

Privacy and researcher control underscores everything we do.

We strive to be a trusted and persistent component of the identifier-enabled research infrastructure with the goal of providing clarity in the breadth of research contributions and the people who make them.

INCLUSIVE

We take a global view, making decisions collaboratively with our staff, Board, those who support our mission, and the researchers and community that are the purpose of our work.

We engage with a wide range of organizations and people to include broad viewpoints.

We have a diverse team, deployed internationally in our "virtual office."

By the numbers

ORCID'S global community of practice, our over 1,300 member organizations, who form a global network of trusted data providers that add validated data to their researchers' records, work together to help us realize our vision where all who participate in research, scholarship, and innovation are uniquely identified and connected to their contributions and affiliations across disciplines, borders, and time.



5,400 external systems are actively connected to the ORCID registry

Active Records 8.1M in 2023

- 2023 -1.62B items of data in ORCID

records was reused

by external systems

2,897,328 Records updated by ORCID members in 2023

945,432 > 5,479,363

Records first updated in 2023

Total records updated in 2023

ORCID data is read 135.05 million times/month researchers sign into a member system

million times in ZUZS

ORCID helped

viewed times/minute

ORCID

records are

by external systems, saving users time and reducing administrative burden

new members and our first

members from

LITHUANIA

SERBIA



21,429,094 Items were added via 052 by 556 integrations members



Highlights from 2023

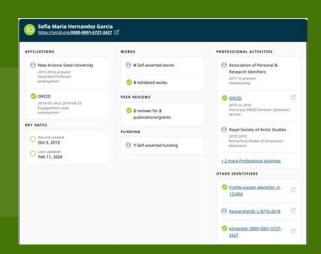


Helping scholarly service providers ensure that they are delivering ORCID integration functionality that our community expects through our <u>Certified Service Provider (CSP) program</u>.



Enabling robust Communities of Practice in under-represented regions via our new *Regional Consortia Program*.

Our new <u>Record Summary</u> makes it easier to visualize trust markers in an ORCID record.





Chris Shillum Executive Director

Message from the Executive Director

2023 was the second full year of our current strategic plan, From Vision to Value: ORCID's 2022–2025 Strategic Plan, and we're really starting to see the cumulative effects of the efforts we've made toward the four priorities we defined when we published it back in 2021.

What's becoming increasingly clear is that ORCID works best when used by all, and when everyone contributes. The success of our joint efforts relies on altruism — contributing data that you hold may not be useful to you because you already know it, but it is useful to everybody else. Introducing the idea of a "Community Trust Network," we're making it easy for our organizational members to contribute trusted data to their researchers' ORCID records, making it easier for researchers to re-use that data in multiple workflows, propagating that trusted data throughout the research ecosystem and reducing the administrative burden for researchers in the process. The key here is making it easier for organizations that hold trusted information about researchers and research to contribute it to ORCID so that it's available to everybody else to reuse — with the researchers' permission, of course; one of our founding principles is that researchers are always in control. By working together to create an openly accessible interlinked web of data about the research ecosystem, then we unlock even more potential to both generate better insights, enable new workflows, and further reduce admin burden for researchers.

Arguably our biggest accomplishment in 2023 towards our priority of increasing value to members was the relaunch of our Certified Service Provider (CSP) program. One of the easiest ways for a member organization to rapidly gain value from their ORCID membership is to turn on a pre-built integration in a system that they already use, whether that is one of the widely-used open-source scholarly infrastructure platforms or a service provided by a commercial vendor. I am pleased to say that the revamped program was successfully launched in July, and I am excited to share the details of the program below.

One thing that I am most proud of personally is our work to increase global participation. Quite honestly, that wasn't a focus in the early years, when ORCID was fighting to get itself off of the ground and become sustainable, so it was apparent when I joined the ORCID team in 2020 that there was uneven participation around the world; countries with lower-income economies couldn't participate as fully as the richer nations, and we needed to fix that.

While ORCID has always had broad participation from researchers globally — currently we have users in 250 countries — we know that not all countries have a corresponding level of organizational membership. We've been working to improve this situation in a number of ways, and in 2023 we built on this work by launching a new program to welcome Regional Consortia to ORCID. This program functions in addition to our standard national consortia, as well as our Membership Equity Program discounts, by allowing smaller countries, particularly those in the Global South, to come together to form sustainable consortia.

In 2023 we made two rounds of Global Participation Fund (GPF) awards to help with both community outreach and technical integration, and are just about to finalize the third. So far, we've awarded nine grants to organizations in Africa, India and Sri Lanka, as well as organizations that support DSpace-CRIS and Open Journal System (OJS), two widely used open-source infrastructure platforms. We are pleased with the progress of the GPF so far, as it continues to raise awareness and conversations around ORCID around the world, particularly in Africa.

Another major issue facing our community is research integrity. With the triple threats of rising pressures and incentives for researchers to publish or perish, shifts in business models that risk incentivizing volume and speed over scrutiny, and the lightning fast uptake of generative AI tools, trust in scholarly communications is approaching a crisis point. The consequences are enormous: huge amounts of effort are spent trying to validate and reproduce fraudulent results; those tasked with investigating academic misconduct are under increasing pressure; public confidence in the ability of science to address the global challenges facing humanity has rapidly eroded; and as shown by at least one high-profile case, publishers are facing potentially devastating financial consequences.

We think ORCID has an important part to play in helping address the crisis through our Trust Markers program. I am excited to share with readers in the section below the progress we've made in helping users understand and visualize all of the trusted data in the ORCID record. The good news is, it's truly a community-driven solution, as it's centered on the validated information that our members contribute to researchers' ORCID records. Though the scholarly community faces significant challenges to uphold research integrity, I remain optimistic that together can make meaningful and lasting progress towards a world where all who participate in research, scholarship, and innovation are uniquely — and reliably identified and connected to their contributions across disciplines, borders, and time. I'm proud to be part of that work and I'm happy to share it with you in this report.



Message from the ORCID Board Chair

Lisa Janicke Hinchliffe

ORCID Board Chair

As I complete my first year as Chair of the ORCID Board, I have been reflecting upon the breadth and depth of our activities and accomplishments in 2023. It has been a very productive year for ORCID, with significant progress made on achieving the goals laid out in From Vision to Value: ORCID's 2022-2025 Strategic Plan. I am particularly proud of the ongoing work of the Global Participation Program, a multi-pronged effort to redress global inequities and enable full visibility of researchers globally as well as reducing the administrative burden of doing so on researchers and institutions. I am also pleased to highlight the extension of our consortia program to offer a regional consortium model alongside our long-stranding national consortium model. We continue to monitor the impact of recent changes to the fee structure and opportunities to increase value to members.

The Board also undertook a comprehensive and systematic review of all of ORCID's governance documents in 2023. The Bylaws, Board Charter, and Committee Charters were updated and brought into alignment with each other. Outdated language was removed as was duplicative text and committee Charters were standardized to a template. In addition, the Board clarified the status of the Board Alumni Network and the ORCID Researcher Advisory Council. This nine-month process, while a tremendous amount of effort, has resulted in streamlined documents that are clearer and better facilitate ORCID governance.

Starting in 2023, the Board also set a planned cadence of two in-person Board meetings each year (prior to the pandemic the Board had met in-person three times per year), each with one or two "deep dive" study sessions on a topic of strategic importance for ORCID. In March, the Board held sessions on the current state of National PID Strategies and what is anticipated to develop and on the United Nations Sustainable Development Goals. In October, the Board explored Decentralized Identity and how the concept of a "wallet" functions in this framework. In the year ahead, topics include cybersecurity and cross-cultural communication and collaboration. In addition, the Board meets an additional two times virtually during the year to conduct routine business.

These are just a few of the highlights of the last year. I encourage you to read through the entire annual report as the accomplishments and progress across ORCID are extensive. I think you will agree that ORCID is making real the tremendous potential to grow the value that ORCID provides to the scholarly communications ecosystem.

I am honored to have been elected to continue as Board Chair in 2024. ORCID is a strong and growing organization. Our collective future is bright and, together with my fellow Board members and the ORCID staff, I look forward to what we will accomplish in the coming year.



Message from the Treasurer

Gregory J. Gordon

Treasurer

Since joining the ORCID Board of Directors in 2023, and serving on the Finance Committee, I have witnessed an organization that is financially diligent, with rigorous procedures around planning and budgeting, and steadfast performance against plans. In my coming first year as Treasurer, I am pleased to inherit an organization in solid financial condition. With a thoughtful approach to serving and supporting members, ORCID retains a very high percentage of its membership, and continues to grow with new members. As a result, ORCID has consistently delivered a reasonable annual surplus since 2019. This surplus has enabled the organization to develop reserves to better ensure long term resilience and continuity.

In 2023 ORCID took steps to better ensure our financial sustainability by creating a low risk investment policy, which allows money to be set aside for unexpected events and future investments. By establishing a prudent investment portfolio and placing our reserves in diversified assets, we strengthen our long-term financial stability and our own "persistence" in the community. Invested reserves, with limited risk, have an improved chance of both retaining value for the future needs as directed by the Board, as well as offer growth potential to further improve our financial resiliency.

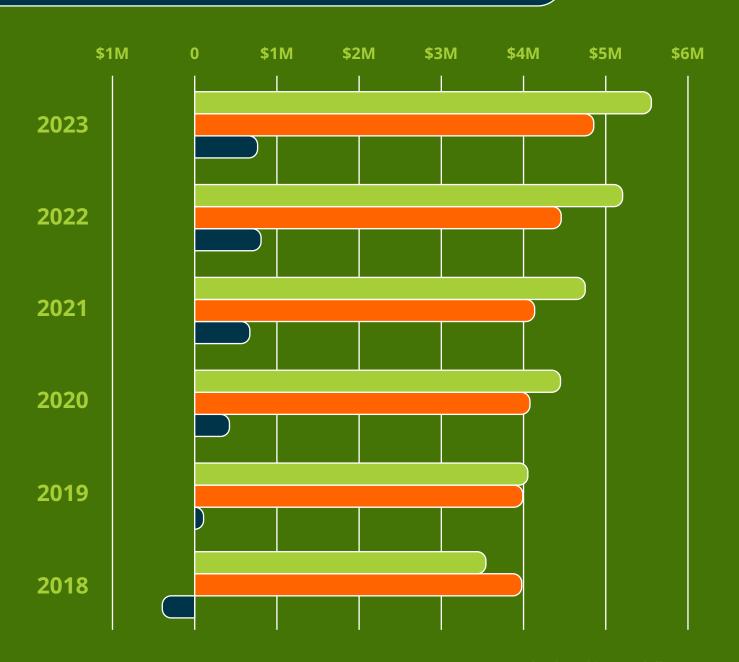
Speaking of risk, given the ever more volatile global environment the entire community finds itself in, ORCID made strides in 2023 to evolve its risk management approach through the exploration of a formal risk appetite framework and a thorough review of our insurance policies. In addition, we updated our Whistleblower Policy and related protections, and have launched a confidential reporting helpline to support our staff and the wider community in ensuring we are abiding by our values. With measures like these, as well as the added initiatives being pursued in data privacy and cybersecurity, ORCID will retain its ability to uphold trust and integrity in the current environment while preparing to meet the complex challenges that may emerge in the future.

As ORCID continues to grow and is relied upon by more and more of the global scholarly community, it is important to continue to evolve and improve our financial processes and continue on our path of sustainability. I am grateful to Clare Apavoo, the outgoing Treasurer, for all of her great work last year. I have confidence in the ability of the team, the Board of Directors, and our larger member and stakeholder community to successfully continue this journey together.

Total Revenue

Total Expenses

Surplus/Deficit



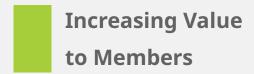


ORCID 2023

Fostering A Global Network of Trusted Data Contributors

The central thesis of ORCID's current strategic plan, published in 2021, is that by building stakeholder commitment to and engagement with ORCID, we will in turn create more value for researchers and members alike and drive further participation by (AND benefit to!) other stakeholders, perpetuating global adoption and reuse of ORCID data across the research ecosystem. To state this more simply, the more fully populated, sufficiently complete ORCID records and integrated systems there are, the more value that all stakeholders can gain from participating in ORCID. It is our goal to create the conditions to allow this to happen.

Our strategic plan, From Vision to Value: ORCID's <u>2022–2025 Strategic Plan</u> outlines the four major themes around which we organize our work.

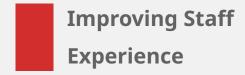








In addition, in 2023 we added a fifth theme:



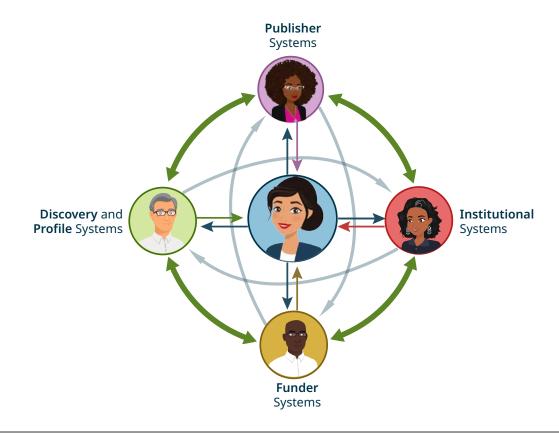
We are pleased to share the progress we have made against these priorities in 2023.

Increasing Value to Members

Making it easier for members to actively adopt ORCID in their systems and processes.

While the entire research community can derive value from public metadata in the ORCID Registry, our Member Organizations are in a unique position to add trustworthy information about their users to those users' ORCID records, whether they are students, researchers, authors, co-authors, peer reviewers, or grant awardees. By adding validated data to their records — an exclusive ORCID member benefit — not only do organizations improve the trustworthiness of those records, they also actively contribute to ORCID's global community trust model, helping to uphold research integrity and allowing researchers to demonstrate their identity as bonafide scholars.

In 2023, our focus was to proactively deliver value to them by making it easier for our Member Organizations to add data to the ORCID registry via our updated Certified Service Providers, equipping them with compelling ways to encourage their researchers to use ORCID, and working with influential organizations such as Funders and Government Agencies to encourage adoption of ORCID, all while our expanding our collaborations with peer scholarly infrastructure providers to ensure alignment across our strategies and activities.



Launch of the Updated Certified Service Provider (CSP) Program

The easiest way for an organization to rapidly gain value from their ORCID membership is to turn on a pre-built integration in a system that they already use, whether it is one of the widely-used open-source scholarly infrastructure platforms, or a service provided by a commercial vendor. After an extensive period of community consultation, we launched our updated CSP program, Moving beyond the one-size-fits-all approach of the previous program, the revised CSP program defines best-practice criteria for ORCID integration in a number of common workflows. We believe that by providing clear, concise certification criteria via the CSP program, organizations making use of ORCID Certified Service Providers can be confident that the ORCID integration functionality meets communitydriven best practice standards, and we can help service providers ensure that they are delivering the ORCID integration functionality that their customers expect and require.

So far, ten service providers have been certified under the new criteria, including the widely used open source journal publishing platform Open Journal System from PKP, Aries Editorial Manager, a popular manuscript submission system, the first certified Electronic Research Administration system (InfoEd Global), and a number of CRIS systems including the open source Dspace-CRIS, Digital Science's Symplectic Elements, and Esploro from ExLibris. Certification under the CSP program continues to be available at no charge to all service providers who meet the defined criteria, and we welcome all who qualify to apply.





















Working with the ORCID community

Equipping Member Organizations to encourage adoption

Actively engaging with our community helps us better understand and respond to the needs of our users, and in turn we are able to provide more robust, compelling materials to encourage institutional adoption of ORCID. In 2023, We made progress in overhauling our consortia support materials, with updates to our website content targeting new consortia. We also launched a new Outreach Resource library to ease the distribution of content to our consortium partners, as well as allowing them to share and re-use material that they have developed among themselves. This will be especially useful in supporting the broader use of non-English materials developed by some of our Consortia Leads.



Engaging Influential Funders and Policy Makers

Research funders encounter unique challenges engaging with ORCID and persistent identifier systems. They have fewer formal opportunities for collaborating; they navigate complex stakeholder relationships and dependencies across research and policy fields, and exist in a wide variety of disciplines, regulatory environments, geographical regions, and sectors. In 2023, we continued to build our relationships with funding institutions around the world through our Funder Interest Group (FIG). We now have funders from 25 countries plus the EU participating in our regular FIG meetings, and we have co-chaired an RDA (Research Data Alliance) working group on National PID strategies. Our Funder Interest Group published their recommendations in 2023, which include guidelines for stakeholders across the research community.

Another key activity for 2023 was to continue our engagement in the policy making process among US federal funders following the publication of the "NSPM-33" research security guidance and the "Nelson" public access memo by the White House Office of Science and Technology Policy (OSTP). We responded to numerous agency RFIs as they work to implement the OSTP stipulations, and engaged directly with NIH to assist with enhancements to the ORCID integration in the SciENcv grant application system used by several agencies.

PID Infrastructure Provider Collaborations

Widespread adoption of Persistent Identifiers (PIDs) and active engagement with FAIR data-enabled systems (Findable, Accessible, Interoperable and Reusable) is critical to the success of trustworthy research infrastructure, which promises accelerate the pace of scientific discovery by facilitating information sharing, reducing inequities in research outputs, and enabling reproducibility. For this to become a reality, it is critical for research infrastructure providers to work closely together to ensure our products and services work seamlessly together. In 2023 we collaborated with our fellow PID infrastructure organizations Crossref, Datacite and ROR in a series of "Better Together" webinars and in-person events, and recently co-authored the first iteration of a "Guide for funders to support FAIR workflows", a publication aimed at helping funders understand what they need to do to adopt best-practice PID-enabled workflows.

integrations, workflows, and communication. We also launched Enabling Value: Showcasing ORCID-Enabled Scholarly Service Providers, a webinar series that highlights how ORCID Certified Service Providers (CSPs) enable fast and simple registry interoperability for ORCID member organizations and other scholarly institutions. In this series, we featured ORCID Certified Service Providers like The Lens, 4Science, and InfoEd Global. Across 21 webinars, our post-event survey results indicate that nearly 80% of attendees had their expectations met when attending our webinars.

We also launched ORCID On-Demand, a digital hub for all ORCID webinar content that is available for viewing anytime, anywhere. Given that our community is global, time zones often prevent us from providing live sessions that are accessible to all. ORCID On-Demand makes it possible for our community to catch up on sessions they missed, re-watch as needed, and share content with their networks.

ORCID Member Events

This year ORCID Events reached new heights with virtual attendance spanning 96 countries, nearly 2,500 registrants, and over 1,000 webinar recording views. Our webinar content continues to resonate with our community, actively engaging our audiences. In 2023, we continued the I'm a Member, Now What?! educational series to help members, both new and long-standing, ensure that their institutions are able to easily adopt ORCID and get the most out of their membership. The series focuses on highlighting benefits and support available to members, along with introductory information about the Member Portal,



Increasing Value to Researchers

the entire ORCID experience for Improving researchers, and reducing the effort that they need to invest in completing and updating their ORCID records is a focus of continual improvement for ORCID, and 2023 was no different. We made significant progress this year with implementing the accessibility improvements that surfaced in the full audit we conducted of the My ORCID interface in 2022, refining categories in the ORCID record to make them more intuitive to users, and overhauling the content in our ORCID Help Center to empower researchers to learn more about optimizing and troubleshooting their records. Of course, we continued engaging with our research community via our Researcher Board Members and the ORCID Researcher Advisory Group (ORAC).



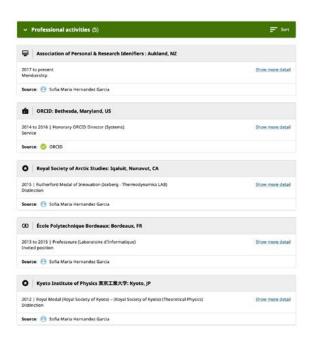
Improving accessibility

A key focus for ORCID in 2023 was improving accessibility of the registry for users with disabilities. Following the web accessibility audit conducted by Digital Accessibility Center (DAC) in 2022, much of the first half of 2023 was spent implementing the recommendations in their report. The bulk of the work completed was centered around a total rethink of the underpinning structure of the ORCID record user interface.

We completed substantial work to ensure that records have a logical layout and flow, regardless of how they are navigated. We added assistive text throughout, meaning that abstract values are given additional context when accessed by screen readers or other assistive technologies. Alongside this more visible design and development work, we also made great strides in embedding accessibility thinking across ORCID. From running simple but effective color contrast checks during the design phase, to accessible code validation during development, and automated regression testing during QA, we continued to work towards incorporating accessibility into our end-to-end processes. We commissioned DAC to do a full reaudit of the ORCID Registry so we can accurately measure our progress towards WCAG AA compliance.

Making ORCID record categories more intuitive

In early 2023, we introduced a new "Professional Activities" section into the ORCID record, grouping the previous categories of Membership, Service, Invited Positions, and Distinctions. Feedback from researchers, including ORAC, indicated that the previous categorization was confusing and thus users were unsure of how to include these important aspects of academic service into their records. We believe this change makes it easier to distinguish between work affiliations, activities, and research outputs and could encourage users to include this type of information in their records.



Supporting users

In 2023 our small but mighty Support Team continued their work as the voice of our end users, solving nearly 60,000 user support tickets and 5,000 member organization tickets, averaging nearly 1,250 a week, all while maintaining a nearly 93% satisfaction rate.

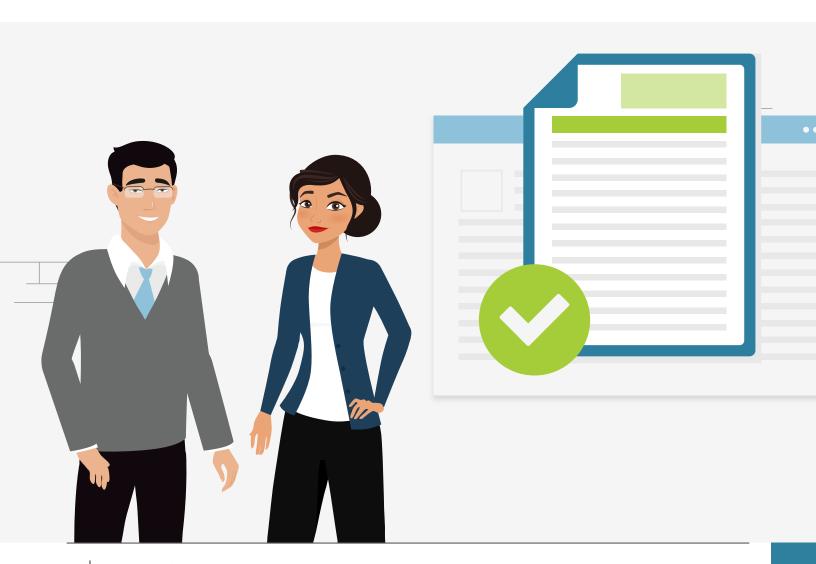
To help them work as efficiently as possible, we made significant improvements to our support processes with the goal of reducing user frustration while enabling them to quickly solve their own problems, and reducing time pressure on our user support team. We restructured support documentation into a more intuitive hierarchy, redesigned the ORCID Help Center to make it more accessible and easy to navigate, and refined support user journeys to direct users to self-help information prior to opening a support request. We are pleased to report that this work has been a great success, significantly reducing tickets without affecting user sentiment or outcomes such as successfully resetting passwords. As a result:

- User support ticket counts were reduced significantly (by ~25%)
 - » This frees up 3/3 of staff member's time that the support team can now use to further improve support journeys and optimize their processes.
- Response times were reduced significantly (by > 50%)
- User support staff are much happier!



Gathering valuable perspective from researchers

In 2023 we continued our engagement with ORCID's Researcher Advisory Council (ORAC) to provide valuable perspective and advice to ORCID's staff and Board so that we can help researchers spend more time conducting their research and less time managing it. Last year, ORAC provided advice to our Product team on how a record summary of authenticated data in an ORCID record would be perceived by researchers, and their feedback was implemented in the development of our pilot design. Read more about our Record Summary project on page 27.



Increasing Global Participation

While ORCID has researchers every country (save for three small island-nations), it is arguably one of our highest priorities to correct the imbalance of participation from Member organizations, creating opportunities for organizations in the Global South to participate with and adopt ORCID at their institutions.

The highlights of our progress towards this priority in 2023 involved awarding new grants supporting the development of local expertise and communities of practice, and developing new partnership models with organizations that have both local knowledge and resources. In addition, we launched a new Regional Consortia Model to allow smaller countries to benefit from communities of practice in their regions. Finally, we added support for three additional languages across the registry and informational sites, increasing language coverage to nearly 96% of our users.



Creating equity in ORCID participation

In 2022, we announced the launch of our Global Participation Fund (GPF), and in 2023, we completed two cycles of grant awards, with a total of US\$115k awarded through nine grants to organizations in Africa, India and Sri Lanka, as well as organizations that support DSpace-CRIS and Open Journal System (OJS), two widely used open-source infrastructure platforms. We are pleased with the progress of the GPP so far, as it continues to raise awareness and conversations around ORCID, particularly in Africa.

Growing ORCID membership

In 2023 we saw continued growth of our membership with 145 new organizations joining ORCID, of which 116 joined as consortium members and 29 as direct members. We welcomed new consortia in the Czech Republic and Mexico in June, launched our first Regional Consortium, and had our first members join in Lithuania and Serbia.





















Launch of New Regional Consortia Model

Enabling global uptake of ORCID requires robust communities of practice. WE realize not all countries have the quantity of non-profit research organizations to reliably sustain or form an ORCID consortium over time, or a reliable consortium host that can maintain the engagement the community of practice requires. So in 2023 we launched a new program to welcome Regional Consortia. This program functions in addition to our existing national model for consortia, as well as our Membership Equity Program discount structure for members in countries with lower income economies.

In August 2023 we were very happy to sign our first agreement to host a Latin American and Caribbean Regional Consortium, with Consortia, SAS, our existing highly successful Consortia Lead in Colombia. Since the launch we have seen 10 organizations join the Regional Consortium, from Costa Rica, Peru, El Salvador, and Colombia.

Two new ORCID national consortia

This year ORCID added two new members to our roster of global consortia! In June, we welcomed the new Mexican consortium with 11 members as well as the new Czech consortium, initially with 18 members, rapidly growing to 22 members, led by the Czech National Library of Technology (NTK).

The year also saw our consortia renewing under our new tiered fee model for the first time, which was successful in attracting smaller members to a number of our consortia whilst remaining largely revenue neutral as planned.



Increasing interoperability of scholarly data

The ORCID registry is an open hub of profile data, now integrated with nearly 5,500 systems across the scholarly ecosystem. In 2023 we increased the size of this network of interconnected systems, by adding 255 new member integrations.

The majority required no technical work, with 127 making use of third party tools that have pre-built ORCID integration functionality, the most popular being Open Journal System (OJS) and Pure. After launching our new Certified Service Provider program, we certified 10 scholarly platforms under our new workflow-based criteria, making it as easy as possible for our members to integrate with ORCID.

A further 68 consortia members connected through our new Member Portal, allowing them to add validated affiliation data to ORCID records without the need for technical expertise. And a further 46 integrations were custom built by our members to meet their specialized use cases and requirements, which our dedicated Member Technical Support staff is always eager to support in order to have the integrations go live as soon as possible.

Improving language support

In 2023, we continued to improve our multilanguage offerings by adding support for three new languages to the registry and informational sites, bringing the total number of languages we offer to 15, and supporting over 96% of our users. To put this in context, we are now able to offer 30,000 pieces of dynamically translated content, whereas just four years ago we were only able to offer several dozen. We continue to update any critically mistranslated content, even as machine translations continue to improve, and we use hand-translations in the registry user interface to ensure the highest quality. In addition, we added automated translations to the ORCID Help Center for the first time.

Finally, if you've attended any of our webinars during the past year, you may have noticed our new webinar platform (Zoom events) supports live translated captions into over 25 languages improving accessibility for our global audience.



Upholding Trust and Integrity

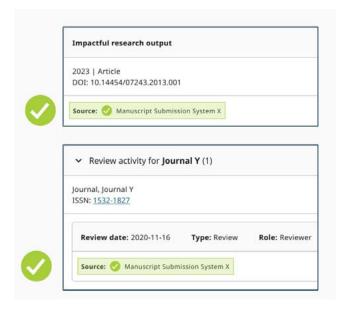
While the way that ORCID thinks approaches about and trust individual control, accountability via public scrutiny, and integrity via strict provenance tracking — has changed very little since we were first founded, as articulated in our Trust Program, launched in 2016, we believe that we have an increasingly important role to play in helping to maintain trust in the global research ecosystem.

Since our founding, ORCID has worked to earn and keep the trust of our communities by remaining true to our founding principles and our core values of openness, trust, and inclusivity, and by ensuring that our technology is reliable and safeguards our users' privacy. And we understand that we must constantly strive to maintain this trust by monitoring and managing key technological, reputational, and financial risks. Our strategic goals in this area are to take a more proactive approach to improving data quality, to improve resiliency and reliability of our infrastructure, to ensure our longterm sustainability, and anticipate future necessary investments or financial shocks.



Helping visualize a summary of trusted data in the **ORCID** record

Submission of suspected fake research papers has been a growing problem for some time, and shows no sign of slowing down. It undermines the integrity of the scholarly communication system and puts enormous pressure on many stakeholders in the process, including editors of scholarly publications as well as those tasked with investigating academic misconduct at publishers, research institutions, and funders. While no one approach is going to entirely solve the problem, ORCID believes that the validated information and its associated "trust markers" in ORCID records about researchers has an important role to play.



Since the launch of the ORCID Registry in 2012, we have carefully recorded and displayed the provenance of each item in an ORCID record, the metadata about who added the information and when. However, it can be quite time-consuming for editors to hunt through this information in an ORCID record to discover and assess the relevance of each piece of data to their integrity checks.

After talking with a number of our members, the ORCID Researcher Advisory Council (ORAC), and others across the community, we believe that this process could be made easier and quicker by providing an easy-to-understand summary that makes it easier for editors to visualize existing metadata in an ORCID record to identify submissions that need further follow up to validate the bona fides of the authors. In 2023, we developed a prototype of the Record Summary in the Registry UI that improves the presentation of these trusted assertions made by Member Organizations in the Registry UI, and are in the process of piloting a version of the Record Summary that can be directly embedded in workflows such as manuscript and grant review and reviewer selection.

Reducing spam in the registry

As a highly trusted website, ORCID continues to attract spammers who believe (falsely) that they can increase their ranking in major search engines by mentioning their businesses in ORCID records. In 2022 we continued our improvements with detecting and reducing this spam, utilizing machine learning algorithms to identify and mitigate nearly 200,000 spam records with around 99% accuracy. We plan to continue this work in 2023 by enhancing our automation processes so problematic records can be identified and locked even more quickly.

Safeguarding privacy

In 2023 we implemented a new cookie consent manager in the registry and info site which brings us into compliance with the latest cookie regulations around the world, including the EU ePrivacy Directive, the California Consumer Privacy Act, and the UK Privacy and Electronic Communications Regulations. In late 2023, we hired a dedicated Data Protection Officer to provide specialist expertise for ensuring compliance with the ever growing set of privacy regulations around the world, enabling us to give more focus to this important area.

Ensuring technical resilience

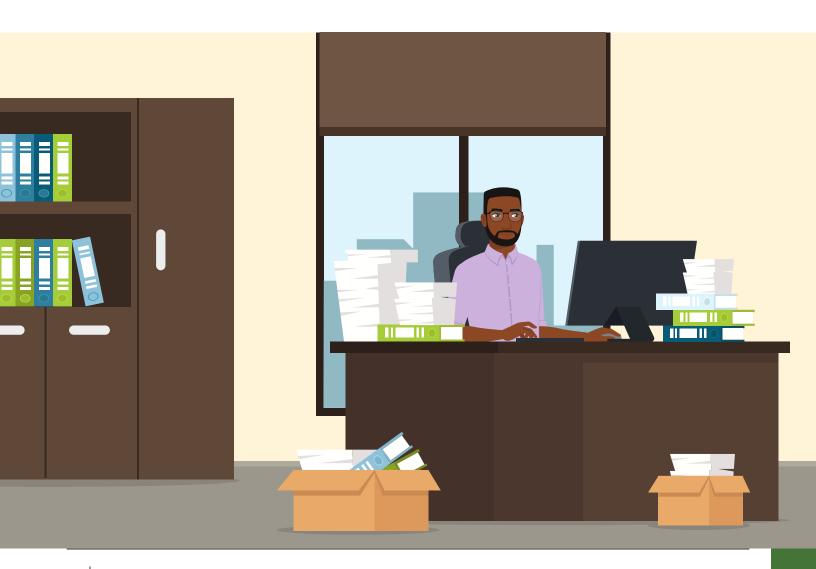
On the technology side, our major focus in 2023 was to transition the ORCID registry from our current hosting provider to Amazon Web Services. The major project, which completed in early 2024, allows us to take advantage of AWS's in-built capabilities for distributed hosting, and eliminates our previous reliance on a single physical data center, thus improving the resiliency of our services. In the longer term the move will provide ORCID with the means to reduce some ongoing support requirements from our previous provider and will give us the ability to access new services on demand for future development requirements, ultimately increasing the efficiency and throughput of the development team. We also made significant progress in automating our software quality assurance (QA) and deployment processes.



Ensuring organizational resilience

As a provider of persistent identifier services, it is important that our community can rely on us to be around for the long-term, thus we need to ensure we have the financial strength to weather cyclical financial downturns and unanticipated global events, and make periodic investments in renewing our technology. Having now consistently generated a cash surplus in each year since 2019, in 2023, we found ourselves in the position for the first time to establish a long-term capital reserve fund. Our board approved a new Investment Policy Statement, enabling us to establish the capital reserve fund, as well as shifting our mid-term term cash reserves to a new set of investments which enable us to generate slightly higher returns whilst still maintaining a very low level of risk. The policy also ensures that we still hold sufficient cash to fund immediate operational needs.

With the return of our Operations team to full strength in mid-2023, we also made significant progress streamlining our operational activities to include enhanced financial reporting, expense reporting and simplified US benefits enrollment processes. We introduced a new, greatly simplified budgeting process and went live on a new bookkeeping system, allowing us to finally retire our legacy outdated desktop-based package.



Improving Staff Experience

Last year ORCID introduced a fifth, internally focused, pillar to our Strategic Plan, concentrating on improving staff experience. This reflects the central role that the ORCID team plays in ensuring our success, and our goal that ORCID continues to be a great place to work. In 2023, we made progress in this area with the introduction of a long-overdue universal family and compassionate leave policy. In addition to providing parental leave for both new mothers and new fathers, the policy supports staff who need to take extended time off to care for loved ones who are sick, or to deal with other challenging life situations. This policy has proven to be immediately popular with staff.

Annual staff retreat

As a fully remote organization, we operate without the overhead of maintaining office locations, and avoid the impacts of daily commuting for our staff. We have learned however that it is important to invest in bringing the team together in the same physical location once a year in order to renew and strengthen the social and teamwork connections that will see us through the following twelve months. In September we hosted our annual staff retreat at St. Edwards State Park, just outside of Seattle on the US west coast. Thirty-four out of 39 staff members attended and it was a wonderful opportunity to connect with colleagues, many of whom hadn't seen one another in person since 2019, and some of whom had never met at all!

The retreat program included an "Ask Me Anything" session with the senior team, a cross-team collaboration session, an ORCID elevator pitch workshop, and a 2024 cross-team planning session, as well as keynote sessions with Juan Pablo Alperin (PKP) and Alex Wade (Digital Science).



Diversity, Equity, and **Inclusion at ORCID**

At ORCID, we aim to consider Diversity, Equity and Inclusion aspects in all the work that we do. We are pleased to report that we have made great progress against our DEI initiatives in 2023, most notably the previously mentioned launch of our regionally based consortia, additional languages in the ORCID Registry, and expansion of language support for ORCID events. We invite you to browse our public ORCID DEI Agenda Trello board where we track our progress. If you have any questions or concerns about DEI for us to consider, we invite you to submit those via our Feedback Form. You can submit that either anonymously or include contact information if you would like us to follow up with you.

Board Alumni Network

Continuity of leadership is critical for the sustainability of any organization, and in 2023 members of our ORCID Board Alumni network participated as external members on Board committees, allowing them to share their institutional knowledge with newer Board members. In early 2023, the Network was presented with our Annual Plan, and some of them were able to join the current ORCID Board for an ad hoc meeting in conjunction with our Board meeting in Brisbane, Australia.



2023 ORCID Board

<u>Lisa Janicke</u> <u>Hinchliffe</u>, Chair

(2021—2023)

University of Illinois Library (USA)

Amal Amin Ibrahim

(2022-2024)

Researcher member (Egypt)

Clare Appavoo

(2021 - 2023)

Canadian Research Knowledge Network (Canada)

Nicolas Fressengeas

(2023-2025)

Université de Lorraine (France)

Paul Gemmill

(2021 - 2023)

UK Research and Innovation (UK)

Gregory J. Gordon

(2023—2025)

Elsevier (USA)

Calvin Johnson

(2021—2023) NIH (USA)

Kalynn Kennon

(2023—2025)

Researcher Member (UK)

Heath Marks

(2023—2025)

Australian Access Federation (Australia)

Steve Pinchotti

(2023—2025)

Altum, Inc. (USA)

Janet Remmington

(2023-2025)

Taylor&Francis (UK)

Lori Ann Schultz

(2022-2024)

University of Arizona (USA)

Michael Ullyot

(2022-2024)

University of Calgary (Canada)

Jesse Xiao

(2022-2024)

University of Hong Kong (Hong Kong)

Chris Shillum

ORCID Executive Director (ex officio), ORCID (USA)

Stephanie Harley

Secretary of the Board (ex officio), ORCID (USA)

2023 Staff Listing

I	Natalia Aldana Mesa, Spain	I	Jordan Holt, Canada	I	Ellen Paterson, UK
I	Fran Alsina, Spain	I	Kimberly Inniger, USA	I	Julie Petro, USA
I	Rob Blackburn, UK	I	Nabil Ksibi, South Africa	I	Andrej Romanov, Lithuania
I	Thamirys Cabral, Portugal	I	Emilia Kutrovska, Canada	I	Shawna Sadler, Canada
I	Ana Patricia Cardoso, Mexico	I	Karen Madrigal, Costa Rica	I	Chris Shillum, USA
ı	Estelle Cheng, Taiwan	I	Paloma Marín-Arraiza, Spain	I	Will Simpson, UK
ı	Pedro Costa, Portugal		Leonardo Mendoza, Costa	I	Matt Stockman, UK
		-	Rica	1	Lombe Tembo, Zambia
'	Paula Demain, UK	ı	Brian Minihan, USA	ı	*Jason Thomas, UK
I	Tom Demeranville, UK	ī	Angel Montenegro, Costa		*Tommy Tepper, USA
ı	Dan Dineen, UK	-	Rica	'	Tommy Tepper, USA
ı	Camelia Dumitru, Spain	I	*Shivendra Naidoo, UK	Ι	Giles Westwood, UK
I	*Jenna Ferrecchia, USA	I	Mitra Najafi-Gheidari, Hungary	Ι	Ivo Wijnbergen, Netherlands
I	Padma Gopinath, USA	ı	George Nash, UK	I	Élan Young, USA
I	Stephanie Harley, USA	ı	Daniel Palafox, Mexico		
I	Sarah Hershberger, USA				
				* 1	New Staff

* New Staff **Departing Staff**



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