ORCiD | 2018 ANNUAL REPORT

2018

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ABOUT ORCID

As an independent non-profit organization with a global scope, ORCID is uniquely positioned to address key challenges for the research community. We were established by the community in 2010, to reliably and uniquely identify researchers, and to enable trusted and persistent connections between them and their contributions and affiliations. Founded on fundamental principles of openness and researcher control, ORCID's Registry is available for free to researchers, who own and manage their record. We publish our open source code, documentation, and an annual public data file; and we provide a free public API and Sandbox server for the community to test integration approaches. We are supported and governed by our members, with an elected Board of Directors from a broad cross-section of community stakeholders, the majority of which are non-profit as per our bylaws. As a 501c3 non-profit, we cannot be sold to or acquired by a commercial entity. The ORCID Registry officially launched in October 2012. Since then, our member and user base has grown steadily, and, as of 31 December 2018, 5,806,563 researchers from every country and discipline had registered for an ORCID iD. We work closely with our community, and are thankful for their continued support and engagement.

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 MISSION

ORCID provides an identifier for individuals to use with their name as they engage in research, scholarship, and innovation activities. We provide open tools that enable transparent and trustworthy connections between researchers, their contributions, and affiliations. We provide this service to help people find information and to simplify reporting and analysis.

OUR VALUES

ORCID is a not-for-profit organization, sustained by fees from our member organizations. Our work is open, transparent, and non-proprietary. We are guided by the principles of privacy and researcher control, and the vision of identifier-enabled research information infrastructure. We make decisions collaboratively, involving our staff, Board, those who support our mission, and the researchers and community that are the purpose of our work. We take a global view. We have a diverse team, deployed internationally in our "virtual office." We engage with a wide range of organizations and people to ensure broad viewpoints. We strive to be a trusted component of the research infrastructure with the goal of providing clarity in the breadth of research contributions and the people who make them.

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MESSAGE FROM THE EXECUTIVE DIRECTOR

LAURE HAAK

2018 was our "Year of the Funder." Research funders from around the world participated in our ORBIT project and defined a core set of shared data fields required for grant applications, and have started several pathfinder projects demonstrating how ORCID can be used in application workflows. Also in 2018, our Helmsley Trust funding program was completed, and we used the opportunity to deeply analyze our organizational structure and processes. ORCID is maturing, transitioning from start-up and starting the process of settling in for the long haul of persistence. We managed a series of changes throughout the year, starting with a substantial re-organization of our Engagement and Support teams, onboarding six new staff and creating a dedicated Communications directorate. When two of our original staff, Laura Paglione and Rob Peters headed off to find new startup adventures, we promoted from within and also created a new Product Management function. In the midst of all of this organizational change, we made substantial progress on all of our strategic projects, developed our 2019 roadmap, and also met our membership goals for the year. We reached some notable milestones: 5m registrants, 5,000 registrations per day, 100m API calls in a month, 1,000 members in 45 countries, and 21 national consortia! I am proud of the dedication of the ORCID team, and ever thankful to be part of it! I look forward to another year of hard work and mission progress, amid fun.

5m Registrants
5,000 Registrations per day
100m API calls in a month
1,000 Members in 45 countries
21 National consortia

ORCID

MESSAGE FROM THE ORCID BOARD CHAIR
VÉRONIQUE KIERMER

ORCID started 2019 stepping on a milestone — over 1,000 members! This is a fantastic achievement for an organization that thrives on support from its member community. It shows the amazing and continued support from the many ORCID stakeholders. It is also a reflection of the tireless work of a talented staff. Looking back on their work in 2018 fills me with gratitude and excitement.

I cannot emphasize enough how important ORCID's 2018 "year of the funder" has been in the journey to integrate ORCID in all important elements of the research life cycle. ORCID exists to serve researchers and scholars and, to do this well, ORCID iDs need to be present and reliably add value in all activities that are essential to their work. After focusing on the publishing process in 2016 and the research institutions community in 2017, it made sense for ORCID in 2018 to make headway with the funding process.

In closing that loop, ORCID will facilitate the seamless transfer of information about researchers and their institutions from grant application, to conducting their research, publishing their work, and reporting on the results of their grants. Automating the information flow via ORCID not only saves time for researchers, it also improves data quality and can facilitate analyses that inform good governance of the funding process without adding to the administrative burden. The ORCID team made great strides through the ORBIT project (ORCID Reducing Burden and Improving Transparency) thanks to fantastic support from the Funder Working Group. This project will continue on in 2019 with a host of activities geared towards ORCID implementation.

Of course, all of this is only meaningful if ORCID continues to be trusted by its users and by the community at large. To support this trust, one of ORCID's key principles is user control. It was therefore gratifying that, when the European Union General Data Protection Regulation (GDPR) came into effect last year — a move that sent many organizations spinning — an expert legal review established that ORCID data privacy practices were largely in alignment with the regulation and the team completed what amounted to fine-tuning to ensure full compliance.

As ORCID continues to build on this foundational work with funders, publishers, and research institutions, it's also time for the team to turn its focus back to researchers. Researchers are at the center of everything ORCID does, and we have identified a couple of areas where additional work can help us better meet their needs. The first area of emphasis in 2019 will be 'Academia & Beyond,' expanding our understanding of use and adoption of ORCID in the arts and humanities, as well as at the intersection of life sciences and clinical medicine. The second area of emphasis will be on user experience.

With this deliberate and iterative set of strategic initiatives, ORCID is marching steadily towards the realization of its vision of service to researchers and the research ecosystem. The value the organization derives from the input and engagement of its community cannot be overstated, and I sincerely thank all of you who support ORCID on this journey.

ORCID

MESSAGE FROM THE TREASURER
DANIEL HOOK

ORCID continues to develop well in fiscal terms with 2018 being another year of solid growth. The leadership team made a number of improvements to ORCID's operational structure: updating the membership team configuration, greater attention to member engagement, enhancing forecasting and reporting throughout the business, and, improving cash management, were among the internal factors that improved business performance. The result of these initiatives translated directly to an improvement in ORCID's financial health, with new memberships totaling $910,400 signed in 2018, and a 97.27% retention rate on the existing $2.99m base (2017 FY). A strong membership pipeline allows us to look forward to a similar scale of financial progression in 2019.

ORCID grew its revenue by 19% year on year in 2018 to $3.55m, up from $2.98m in the prior year — exceeding the budget forecast by approximately $3k. Costs increased by 1% from $3.92m in 2017 to $3.98m in 2018 — effectively flat when inflation is considered, and 5% less than the budgeted cost level of $4.21m. Improved cash management and careful monitoring of expenses meant that cash reserves did not drop below $2.5m at any point in 2018.

Forecasts suggest that ORCID will break even both on a cash basis and on a recognized revenue basis in 2019, and will be in a strong position to develop the cash reserves needed to start repaying its start-up loans beginning in 2021, as originally planned.

ORCID

STRATEGIC GOALS

ORCID's overall strategic goal is to optimally position our offering to empower researchers and advance the research ecosystem to drive better research outcomes. We do this by focusing on four core strategies:

RESEARCHERS: Positioning the researcher at the center of all that we do

INFRASTRUCTURE: Investing in developing a robust information infrastructure

TRUSTED ASSERTIONS: Enabling a wide range of verified iD-ID connections

STRATEGIC RELATIONSHIPS: Developing sustainability through strategic relationships

Our 2018 roadmap goal was to make ORCID record information richer and more secure, using the funding community as our lens. We defined eight projects, which we report on throughout this document:

RESEARCHERS

- **Share information** – establish new and enhanced ways for researchers to share funding information when they publish
- **Collect the evidence –** demonstrate researcher benefits of using ORCID record information when interacting with research systems

INFRASTRUCTURE

- **ORBIT project –** establish what information is essential for funding applications and post-award reporting, and demonstrate how funders can engage with researchers to use ORCID record information to populate funder forms

TRUSTED ASSERTIONS

- **ORCID policy and trust –** strengthen ORCID's position as a trusted actor in enabling iD-ID assertions
- **Research activity hub –** leverage our relationships with third party system providers to define effective strategies to establish the ORCID record as an activity hub for researchers

STRATEGIC RELATIONSHIPS

- **Regional strategies –** enhance our internal infrastructure for managing relationships with members and partners
- **Long tail –** analyze member models for engaging organizations that are not served by current member models
- **Friends of ORCID –** build strategic relationships with funding and other sectors

ORCID

# 1. BUILDING AN IDENTIFIER-ENABLED RESEARCH INFORMATION INFRASTRUCTURE

INTEROPERABILITY — ENTER ONCE REUSE OFTEN
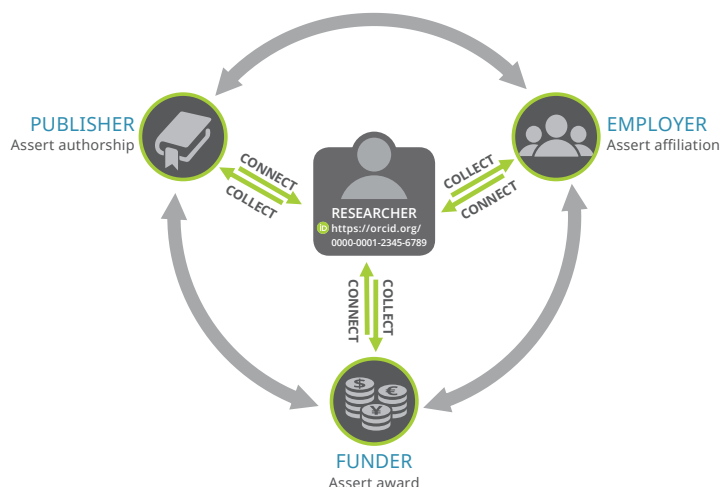
Building trusted and trustworthy research information infrastructure — one that keeps researchers themselves at its heart — underpins everything we do. We work with our community to provide more opportunities for researchers to use their iD to make reliable connections with their works and affiliations.
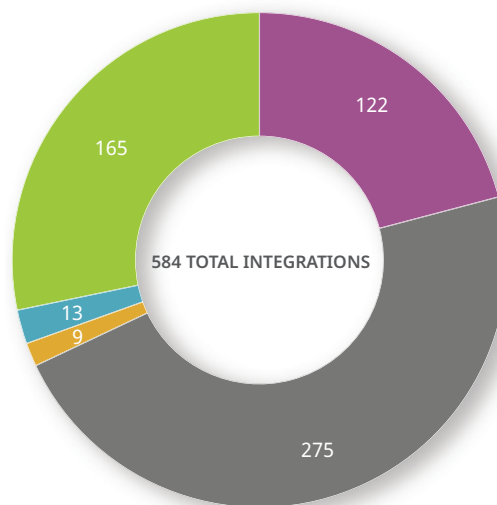
INTEGRATIONS

We continue to work with our community to provide more opportunities for researchers to use their iD to make reliable connections with their works and affiliations. The charts below show the full breakdown of ORCID member integrations in 2018 by community (left) and region (right). We are delighted to report that there are 33% more ORCID member integrations now than there were at the end of 2017.

584 TOTAL INTEGRATIONS

34
19
11
83
34
403

584 TOTAL INTEGRATIONS

122
165
13
9
275
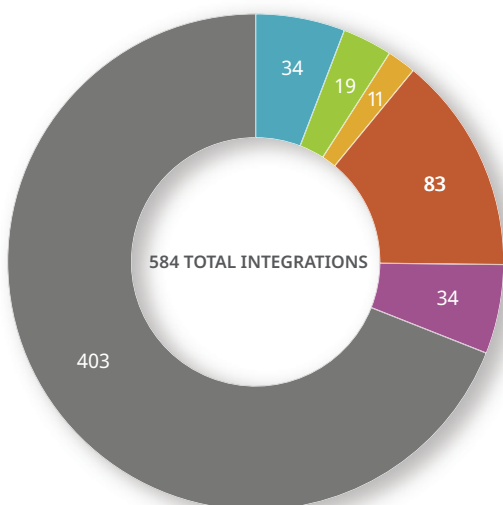
MEMBER INTEGRATIONS BY **SECTOR**

- Research Institute: 403 (69%)
- Publisher: 83 (14%)
- Repository/Profile System: 34 (6%)
- Association: 34 (6%)
- Funder: 19 (3%)
- Government: 11 (2%)

MEMBER INTEGRATIONS BY **REGION**

- Europe: 275 (47%)
- USA/Canada: 165 (28%)
- Asia Pacific: 122 (21%)
- Middle East & Africa: 13 (2%)
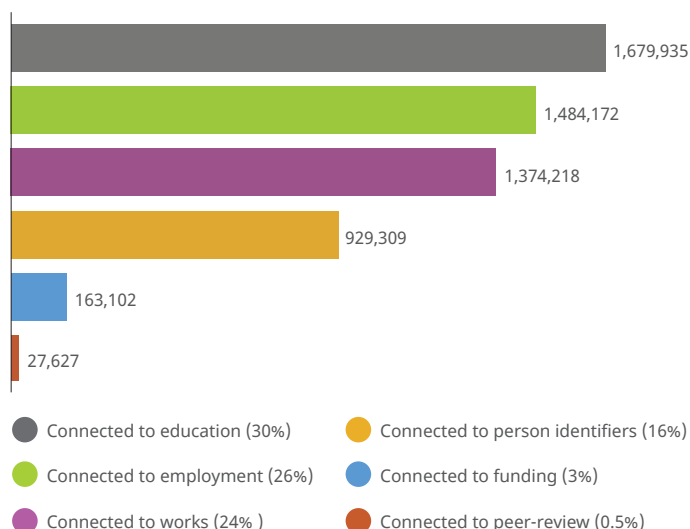- Latin America: 9 (2%)

ORCID

ADOPTION

2018 was another year of milestones in terms of adoption and use of ORCID:

- In July we reached 5m registrants (vs. UNESCO estimate of 7.8m researchers globally and OECD estimate of 25.5m) — as of December 31, that number had increased to 5,806,563

- Around 5,000 researchers now create an iD every day

- Over 40% of records — 2,379,492 — are now connected with at least one identifier

- 73.6% of users have granted permission to at least one ORCID member to update their record

Find the latest data on our statistics page.

ACTIVE RECORDS WITH AT LEAST ONE CONNECTION

1,679,935
1,484,172
1,374,218
929,309
163,102
27,627

- Connected to education (30%)
- Connected to employment (26%)
- Connected to works (24%)
- Connected to person identifiers (16%)
- Connected to funding (3%)
- Connected to peer-review (0.5%)

EASE OF USE

As ORCID registrants and integrations grow, so do user questions, member support tickets, and other community requests. During 2018 we answered 46,367 tickets, compared with 30,739 in 2017 — an increase of 66% — with spikes in May and August, due to two direct communications with users in those months. Despite this, our average response time remained under 24 hours during 2018. We have recently improved user support by switching to a new platform, which supports multiple languages, features a better user interface, and enables improved reporting for making smarter decisions about our users support.

NUMBER OF HELP DESK TICKETS (2018)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3,419	3,126	3,314	3,130	5,359	3,473	3,778	5,475	4,082	3,898	4,231	3,082

Average response time: **22 hours**

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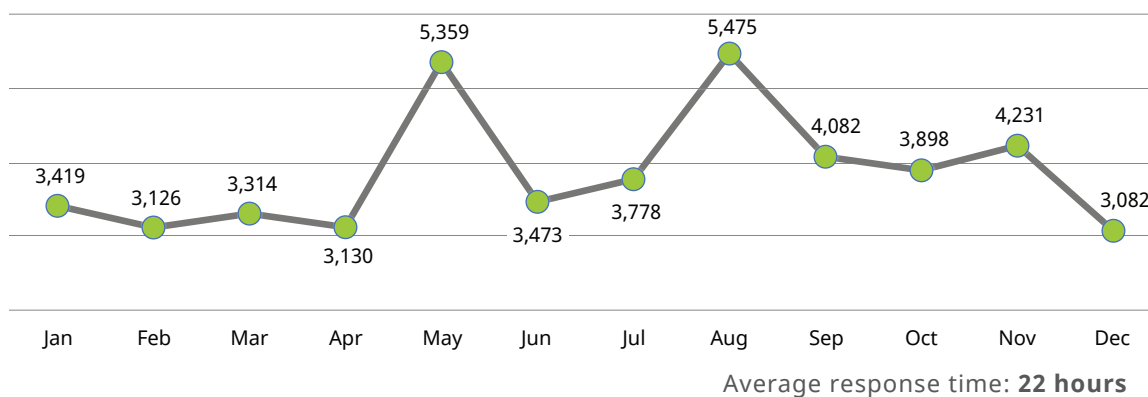
RESEARCHER CONTROL

The EU General Data Protection Regulation (GDPR) took effect on Friday, May 25. Given our core principles of researcher control, privacy, and transparency, we were already largely in alignment with the regulation. This was confirmed in an expert legal review of our data privacy practices. However, to ensure compliance, we fine-tuned some of our internal processes and updated our documentation and privacy policy accordingly, as well as adding a Download All My Data options for users. We contacted all users about these changes; more information can be found in GDPR, ORCID, and You.

NEW AFFILIATION TYPES

With the launch of the beta version of our API 3.0 in November, several new affiliation types can now be connected to ORCID records — for qualifications such as certifications; for invited positions and distinctions; and for membership and service. This enables researchers to be recognized for more of the many different types of valuable work they do. 110,431 of these new affiliation types had already been added to ORCID records by the end of 2018.

RESEARCH RESOURCES

Also included in our API 3.0 is the option to connect access to and use of research resources — such as user facilities and special collections — to ORCID records. This is part of our strategic goal to establish new and enhanced ways for researchers to share information about their activities when they publish, and was a recommendation of our User Facilities and Publications Working Group. This enables researchers to easily and accurately acknowledge use of research resources, and sponsoring organizations to monitor impact of their facility, collection, equipment, service, or other resource. Like peer review items, research resources can only be added by ORCID member organizations — two are already doing so and had added 692 items as of the end of 2018.

RESEARCHERS

ORCID usage by researchers around the world continues to increase, with 1.97 ORCID record updates per second now being made, by researchers or by ORCID members that they have authorized! The Registry is now available in 11 languages, with Chinese (9.7%), Portuguese (5.91%), and Spanish (5.08%) the most used after English (which accounts for 49.15% of usage).

ORCID

SITE VISITS BY REGION

Region	Visits	Percentage
United States	231,729	16.02%
China	116,781	8.07%
India	73,586	5.09%
United Kingdom	72,966	5.50%
Brazil	71,458	4.94%
Spain	57,734	3.99%
Turkey	49,763	3.44
Germany	44,031	3.04%
Italy	41,328	2.86%
Japan	40,262	2.78%

REGISTRATION BY LANGUAGE

Language	Percentage
English	49.15%
Chinese	9.70%
Portuguese	5.91%
Spanish	5.08%
Turkish	2.81%
Polish	2.57%
Russian	2.49%
French	2.39%
German	2.27%
Japanese	2.24%

RESEARCH INSTITUTIONS

Research institutions continue to represent the majority of ORCID members — 792 of 1,005 (79%), an increase of 18.4% compared with 2017. At the end of 2018, the top five research institutions adding affiliations to ORCID records for their researchers had collectively added a total of 29,213 affiliations to ORCID compared with 23,621 added by the top five by the end of 2017. As of the end of 2018, 3,040,241 education and 2,515,692 employment affiliations had been added to ORCID records (19,583 and 122,382 respectively were added by members).

145 new institutional integrations were launched during 2018. As part of our strategic goal to leverage our relationships with third party system providers and establish the ORCID record as an activity hub for researchers, we worked with research information management systems to launch their ORCID integrations. This resulted in over 20 new integrations as well as some new research institution members.

PUBLISHERS

Eight publishers joined ORCID in 2018, bringing the total to 105 (including 35 associations that are currently using — or planning to use — ORCID in publishing workflows). Researchers continue to use their ORCID iD most often in a publishing workflow and, by the end of 2018, with the researchers' permission, 36,833,675 works had been added to ORCID records, 23,661,921 of which had been added by members. The top organizations adding works to ORCID records are: Scopus (10,532,602), ResearcherID (4,521,258), Crossref — via two integrations: auto-update and their Search & Link wizard — (3,476,929), and Europe PubMed Central (1,921,838).

ORCID

Support for the publishers' ORCID open letter continues to grow, and, as of the end of 2018, there were 70 signatory organizations, 23 of which are now requiring iDs for authors and complying with our best practices.

As with research information management systems, we also worked with several manuscript submission systems to upgrade their ORCID integrations, enabling increased adoption of our peer review functionality. By the end of 2018, 562,157 peer review items had been added to ORCID records by ORCID members (with the researchers' permission).

FUNDERS

We added one member from the funding sector this year, bringing the total to 35. Funders are increasingly adding ORCID as a recommendation or requirement in their policies, and there are now 545,738 grants and awards connected to ORCID records, compared with 380,833 at the end of 2017. The five integrations that added the most funding items to ORCID records last year were: ÜberWizard (113,790), University of Tasmania (3,450), Ciência Vitae (2,654), National Chengchi University (1,237), and Chang Gung University (1,088).

Working closely with our Funder Working Group, we have made good progress on the ORCID Reducing Burden and Improving Transparency (ORBIT) project. The FWG comprises 19 representatives from funding bodies small and large, public and private, across six continents. Our strategic goal for this project in 2018 was to establish what information is essential for funding applications and post-award reporting, and demonstrate how funders can engage with researchers to use ORCID record information to populate funder forms.

In December, a group of nine funding bodies involved in ORBIT signed an open letter committing their organizations to implementing ORCID iDs in accordance with our best practice guidelines for funders, and encouraging other funders to join them in supporting ORCID in this way.

In line with our goal of leveraging third party integrations, we established the ORBIT Technical Advisory Group (TAG), a venue for the exchange of ideas, requirements, and plans between the funder members and the vendors that serve them.

ORCiD

2. REACHING FINANCIAL SUSTAINABILITY

Reaching financial sustainability through membership fees is a key focus for ORCID. In 2018, we continued to grow our membership globally through outreach, workshops, and partnering with national and regional consortia. We engaged closely with existing members to ensure they had the resources needed to develop and support trusted integrations. We also benefited from the last three months of a grant from the Leona M and Harry B Helmsley Trust.

MEMBERS

To achieve our mission, we need to sustain and build our membership community. During 2018, we continued to add new members and to provide support for their outreach efforts and ORCID integrations. At the end of 2018 we had 1,005 members in 45 countries, compared with 827 in 44 countries at the end of 2017: 144 new members, and 96.73% retention of existing membership revenue. We added five new consortia members — in Austria, Denmark, Greece, Israel, and Portugal — and four regional US consortia combined to form a single consortium (our largest to date!), led by LYRASIS, bringing the total to 21. Consortia now collectively represent 70% of ORCID members.
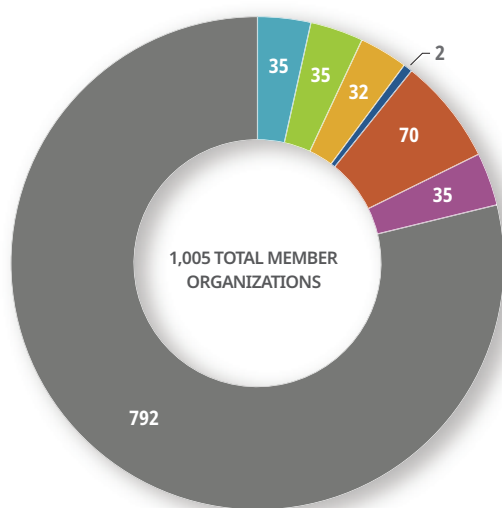
MEMBER ORGANIZATIONS BY **SECTOR**

- ● Research Institute: 792 (79%)
- ● Publisher: 70 (7%)
- ● Repository/profile: 35 (3%)
- ● Association: 35 (3%)
- ● Funder: 35 (3%)
- ● Government: 32 (3%)
- ● Other: 2 (<1%)
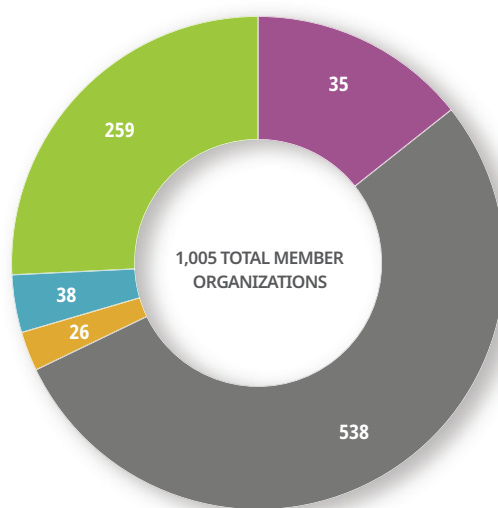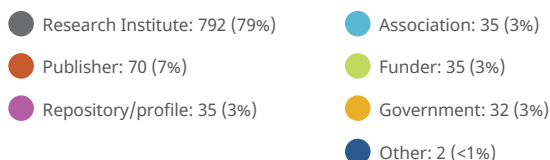
MEMBER ORGANIZATIONS BY **REGION**

- ● Europe: 538 (54%)
- ● USA/Canada: 259 (26%)
- ● Asia Pacific: 144 (14%)
- ● Middle East & Africa: 38 (4%)
- ● Latin America: 26 (3%)

ORCiD

The map below shows all countries that have ORCID members (in blue), with national consortia highlighted in green.

National ORCID Consortium   ORCID Members
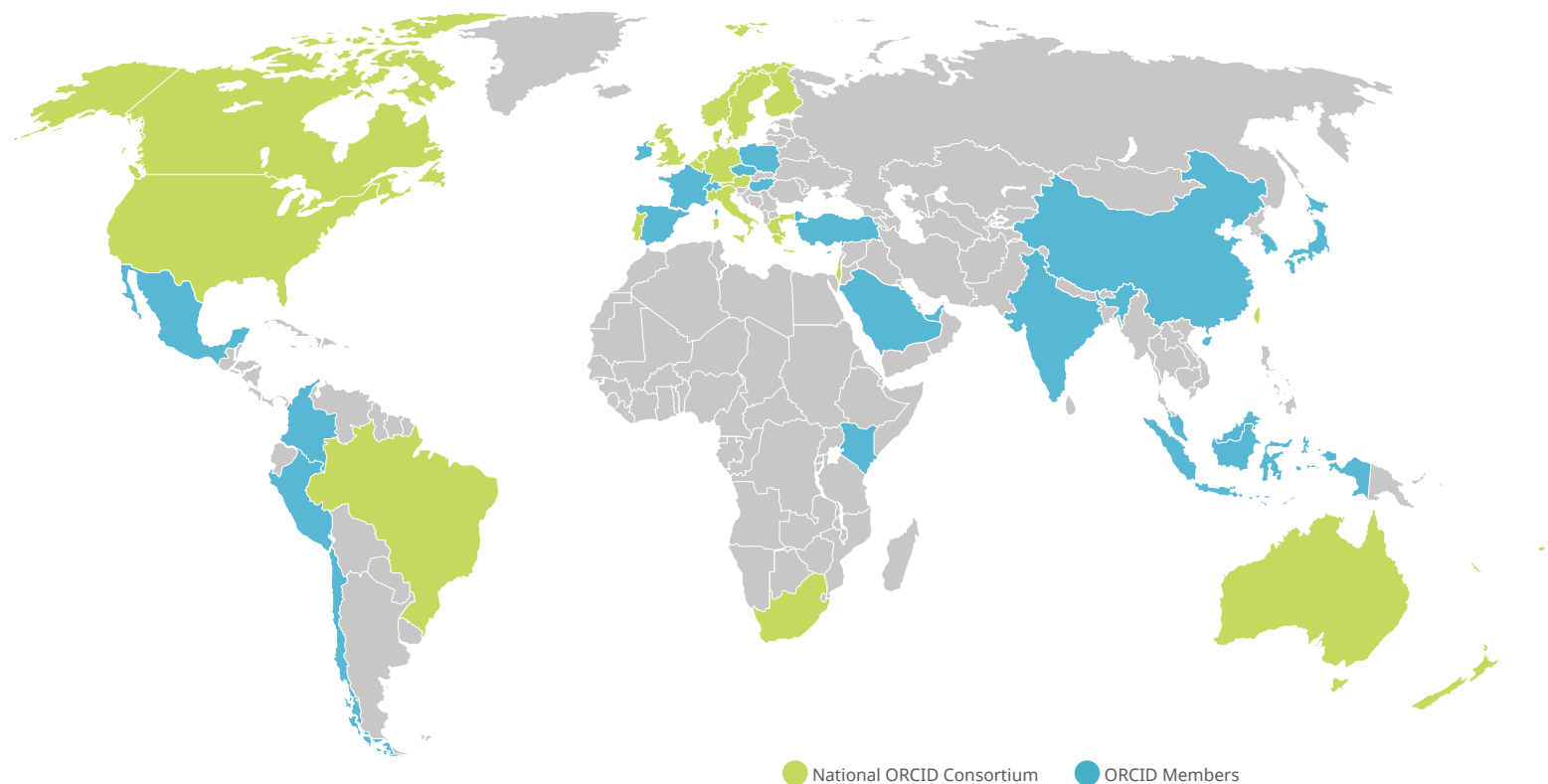
GRANTS

As we work towards persistence through adherence to openness, researcher-centric principles, and fiscal responsibility, we have benefited from the support of several organizations while building our services and membership base. This included a generous award from the Leona M and Harry B Helmsley Trust, provided in two phases (April 2015 - September 2016 and October 2016 - March 2018). With that funding period now over, 2019 will be our first full year without grant support; we are also projecting it will be our first year of positive cash flow.

The Helmsley funding allowed us to bring on additional staff, test out and implement community engagement staffing models, stabilize our privacy and security reporting, create a comprehensive range of outreach resources, and build out our quality assurance practices.

ORCID

MEMBERSHIP AND GRANT SUPPORTED ACTIVITIES

During 2018, membership fees combined with grant support enabled us to undertake the wide variety of activities outlined in this report. This chart shows the breakdown of expenditure across our four main areas of focus. In addition to staff costs in each area, Engagement activities include user and member support; Marketing & Communications activities include communications, marketing, and our regional workshops program; Operations includes back-office costs such as bookkeeping, audits, and privacy certification; and Technology includes infrastructure costs such as Rackspace.

Engagement: 34.5%   Operations: 25.5%
Technology: 30%   Marketing & Communications: 10%

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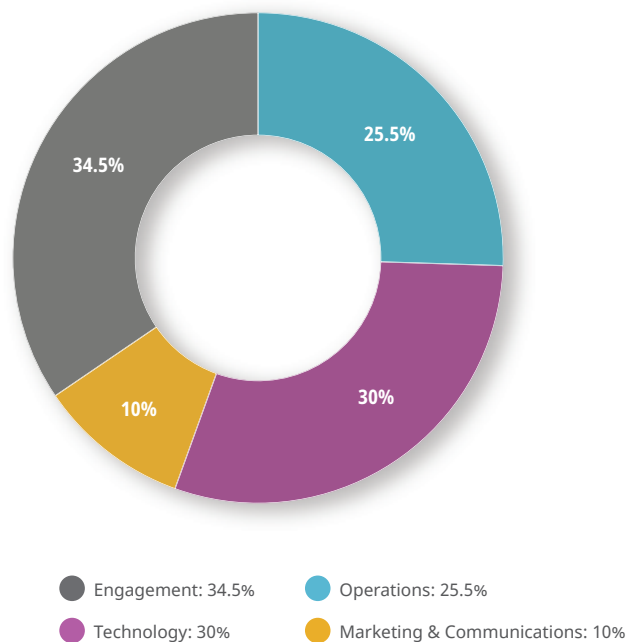
3. BUILDING TRUST IN THE RESEARCH INFORMATION INFRASTRUCTURE

Building trust in research information infrastructure, by providing transparent and trustworthy services and tools to the community, is central to everything we do. This includes ensuring that our technology is reliable; that our members build integrations that work for their users, their organizations, and the wider community; and that we continue to adhere to our core principles, including researcher control.

PRIVACY

Since 2013, ORCID has sought independent audit and certification of our Privacy Policy against international standards. This is a formal process carried out annually through TrustArc's privacy management program to ensure we are meeting the requirements of our own privacy policy and those of the EU-US Privacy Shield Framework, the European Union's framework of data security requirements for data transfer. A link to our certification letter is included in our Privacy Policy.

RELIABILITY

Registry and API availability and reliability are essential to our success. In 2018, our Member and Registry API uptime was 99.91% compared with 99.99% in 2017. These numbers are inclusive of external network, releases, server issues, and a planned outage of eight hours for database migration in December. Excluding downtime for the database migration, the numbers are similar to those for 2017.

The database migration was a success, and completed within the planned eight hours. About 60 records failed to migrate correctly, but these were cleaned up during the few days after the migration, and users informed where necessary.

SERVER RESPONSE UPTIME

- ● Min response time
- ● Avg response time
- ● Max response time

REGISTRY (up 99.92%) PUBLIC API (up 99.91%) MEMBER API (up 99.91%)

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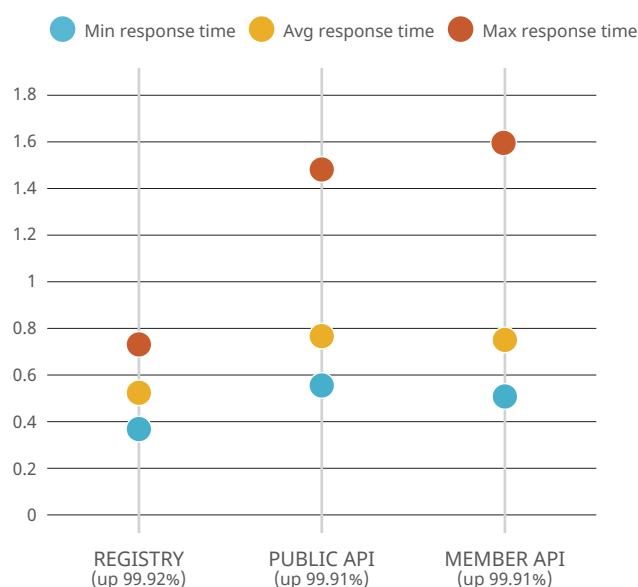
INFRASTRUCTURE IMPROVEMENTS

Our Technical Team completed 957 Trello cards for bugs and new features during 2018, including the following major improvements.

• All integrations have now moved to our 2.0 API — a major shift from the original monolithic API designs to one that better reflects scalable RESTful designs

• In December, we upgraded our relational database management system from Postgres 9 to Postgres 10, enabling us to move from binary replication to logical replication, which means we will be able to significantly reduce and possibly eliminate outages for future upgrades. The database files are now stored on an encrypted file system, which improves security and means that we can now say that our data are encrypted at rest

• In late 2018, we launched release candidate versions of the 3.0 API, which includes five new affiliation types, a new Research Resources section, and many other refinements

COLLECT & CONNECT

We continued to make progress on our Collect & Connect program, designed to encourage, support, and recognize ORCID member integrations that meet our best practice guidelines. We relaunched the program in May, with simplified guidelines and sample communications text. 115 integrations have now been awarded badges, with many more in the pipeline.

COLLECT & CONNECT WORKFLOW

Synchronize — 8 integrations

Connect — 18 integrations

Collect — 64 integrations

Display — 19 integrations

Authenticate — 6 integrations
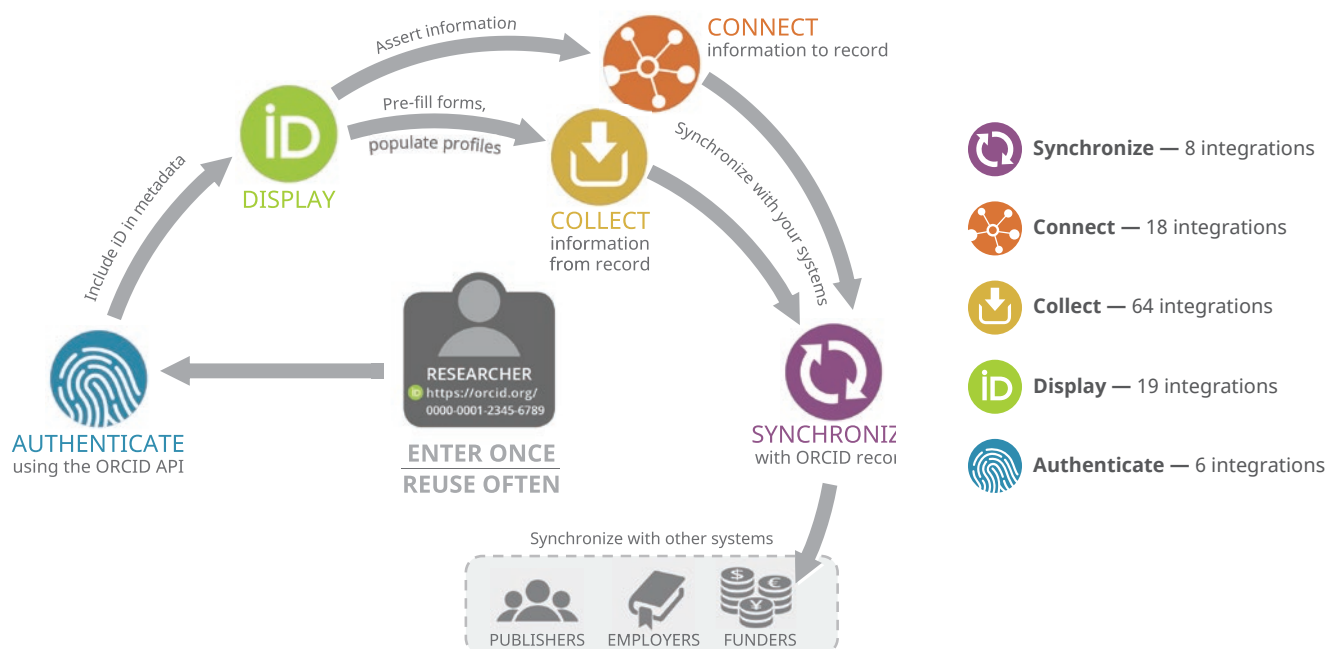
ASSERTION ASSURANCE

At its core, ORCID enables researchers to make connections between themselves (via their ORCID iD) and their activities and affiliations (via other identifiers and APIs). These connections are asserted either by the researcher or, with their permission, by ORCID members. As part of our strategic goal to strengthen ORCID's position as a trusted actor in enabling iD-ID assertions, we dedicated ourselves to working out how to make the source of information in ORCID records transparent, focusing on three key elements of the anatomy of an assertion:

- **Item origin** — whoever published the activity or is the affiliated party

- **Assertion origin** — whoever collects the ORCID iD and makes the connection to an item

- **Source** — whoever adds the information to the researcher's ORCID record

In late 2018, we launched our Research Information Platform Engagement (RIPEN) program, which will build on this work. It also addresses another of our strategic goals — to analyze member models for engaging organizations that are not served by current member models — by enabling easier ORCID iD authentication for everyone.

4. CREATING A GLOBAL, DIVERSE, AND INCLUSIVE ORGANIZATION

ORCID is committed to diversity and inclusivity; our globally based staff, Board, and working group/task force members reflect this commitment. We also work closely with ORCID consortia lead organizations — now located on all continents other than Antarctica — to develop communities of practice with members in their regions.

GLOBAL AND DIVERSE TEAM

2018 was a year of many staff changes. We bid farewell to founding team members, Laura Paglione (Director of Strategic Initiatives) and Robert Peters (Technical Director), among others, and we welcomed new staff in Canada, Costa Rica, Hong Kong, the Netherlands, South Africa, Taiwan, the UK, and the US, as we restructured the organization including combining the former Community and Membership teams into a global Engagement team with staff in each region. The honing of our team structure was made possible in large part by the Helmsley Trust funding, as noted above. We now have 31 team members in 13 countries and collectively we speak 11 languages!

CONSORTIA PROGRAM

We operate globally, with members in 45 countries and users everywhere. We can do a lot ourselves, but we rely on our community to help us achieve our mission. Consortia, which enable us to scale and to build regional communities of practice, are a critical component of our strategic goal to develop regional strategies that enhance our internal infrastructure for managing relationships with members and partners.

Our consortia program grew out of an Alfred P. Sloan Foundation-funded Adoption and Integration project. Launched in 2014, the program's goal is to facilitate adoption and use of ORCID identifiers by supporting localized communities of practice. We encourage formation of consortia by providing incentives in the form of membership fee discounts, support, and training. Today, there are ORCID consortia in 21 countries, collectively comprising 70% of our member community. In January we held our first workshop for consortia in Lisbon, Portugal. With delegates from most consortia lead organizations, as well as participants from nascent consortia in Japan, Russia, Slovakia, and Portugal, this was a great opportunity to learn from and with each other. It also enabled us to recognize the excellent work done by five consortia leads who have gone above and beyond in their support for ORCID.

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5. WORKING WITH OUR COMMUNITY

ORCID is a community-led organization; actively engaging with our community is vital to ensuring that we understand and respond to the needs of our users and members. We seek input and direction on specific initiatives through community working groups and task forces, and we make decisions collaboratively, involving our staff and Board — which is majority non-profit and broadly representative of the research community — as well as our partners, and the researchers and community that are the purpose of our work. We also engage with our community through ORCID-hosted and community events, webinars, our blog and other publications, and social media.

ORCID BOARD

ORCID Board elections were held in November - December 2018. Four new and returning Directors will start their three-year term in January 2019. Board members chair two standing committees, Audit and Nominations. They also chaired one ad hoc committee in 2018.

- **Trust Working Group**, charged with exploring what drives trust in ORCID services. Among their activities in 2018 was reviewing our trust practices, engaging in our work on assertion assurance and on-behalf-of workflows, and considering interactions with blockchain initiatives

- **Membership and Fees Working Group,** charged with exploring options to lower technology barriers, improve data quality, and expand the reach of ORCID in underserved communities

- **ORCID in Publishing Working Group.** Chaired by Board member Alison Mitchell of Springer Nature, this newly-formed group aims to increase knowledge and adoption of new ORCID programs and initiatives by the publishing community, and to increase ways for the publishing community to inform and support existing and new programs and initiatives

COMMUNITY WORKING GROUPS

As part of our strategic goal to build relationships with funding and other sectors, as well as our ongoing commitment to engaging with our community, we led or supported several working groups and task forces during 2018:

- **ORCID in Repositories Task Force.** Chaired by Michele Mennielli of DuraSpace, this task force was charged with reviewing, providing feedback on, and further developing the proposed recommendations for supporting ORCID in repository systems. Draft recommendations were shared for public comment in November and the final recommendations will be published in early 2019

- **ORBIT Funder Working Group.** The primary objective of the FWG is to provide expert input on the ORBIT project, including mapping data model requirements, and discussing topics such as persistent identifiers for grants, interactions with publishers, data sharing workflows, and administrative burden for researchers

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- **Publications and User Facilities.** Formed in 2017, this group was originally charged with ascertaining what information would help facilities to map impact, and determining whether and how ORCID could enable its collection. During 2018 the group's focus switched to implementing their underlined recommendations, including launching the Research Resources section of the ORCID record, as noted above

- **Organization Identifiers.** This collaborative effort with Crossref and DataCite continued into early 2018. The initiative to launch an open organization identifier registry has been taken up by Crossref and DataCite, and we continue to support this work without directly participating

PARTNERSHIPS

Our global network of partners is an essential component of our ability to deliver ORCID's vision. Our partners advocate for ORCID, build and encourage integrations, educate and inform researchers and policy makers about the value of an open, community-led identifier infrastructure, participate in our projects and programs, and provide us with advice and feedback as we work toward our goals. This vibrant community has shaped all the developments and activities described in this report.

In 2018, we have evolved the way that we engage with, and provide strategic leadership to, this network. Every member of the ORCID team connects with a part of our community, and we have been building a structure to help us understand the nature, make-up, and breadth of our partner network. We've developed tools to help us understand and evaluate partnerships according to a range of criteria, such as their alignment with our vision, community role, or strategic insight. We have built partnerships into each team structure in our revamped organizational hierarchy, with a Partnership Liaison in each regional Engagement team, to help guide and coordinate activities in their region. Finally, we have made strides in our understanding of our network, and we are developing better tools to help us to analyze and evaluate our engagement with, and support for, all the sections of the international research community.

The partnership approach has helped us to support our growing community, and to boost the sustainability of ORCID. Programs like ORBIT and RIPEN would not be possible without active, enthusiastic, and supportive external relationships. Mobilizing this network to solve real-world problems has been one of the most satisfying aspects of our partnerships work this year. A huge thank you to everyone, inside ORCID and across the world, who has helped us this year!

ENGAGEMENT

A key element of our 2018 strategic goal to collect the evidence of ORCID's value to users and members was listening to our community. This included implementing sentiment analysis to help track positive and negative mentions of ORCID in traditional and social media. We are happy to report that overall our community has a very positive view of ORCID, as shown in this chart. The peaks in positive mentions on traditional media in June and October can be attributed respectively to a letter we published in Nature and a report about a 2017 Science magazine paper in a major Brazilian journal, Folha de Sao Paulo. The peak in positive mentions on social media in July was associated with Mendeley's announcement about importing peer review items from ORCID to Mendeley profiles.

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SENTIMENT ANALYSIS (Traditional Media)
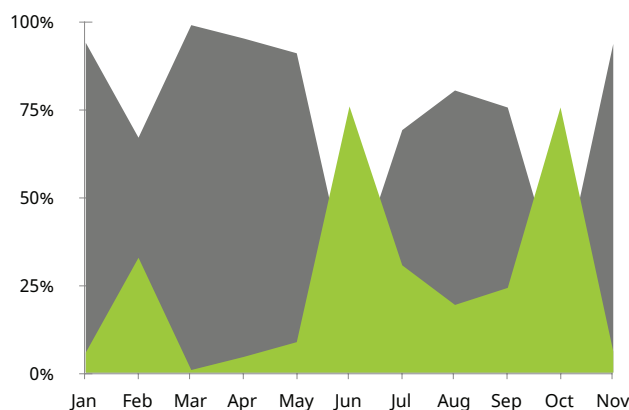
SENTIMENT ANALYSIS (Social Media)
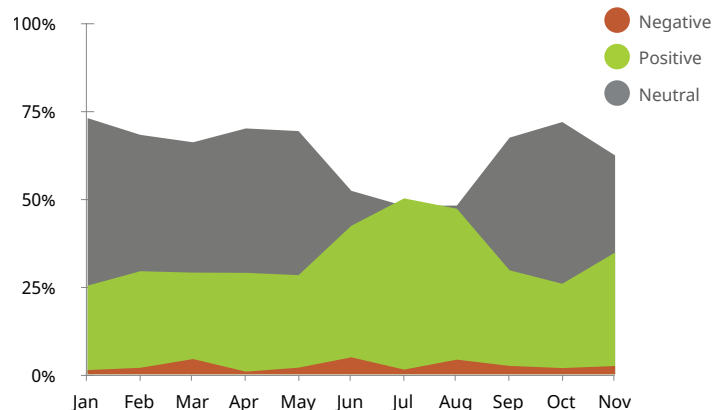
Another element of engaging with our community is listening to what everyone in our community has to say. In 2018 we conducted our first member survey. We received 170 responses (126 respondents completed the full survey); please see ORCID 2018 Member Survey for a full report. This year we will be surveying our user community, our Funder Working Group, and our consortia lead organizations.

EVENTS

Virtual and in-person events are an important way for us to engage with our community. For a full list, see our Events page; highlights for 2018 included:

- **PIDapalooza:** the second annual open festival for persistent identifiers, co-hosted with CDL, Crossref, and DataCite, took place in Girona, Spain in January. Over 150 PID enthusiasts attended and most presentations are available in the PIDapalooza repository

- **Workshops.** We hosted 12 workshops (including the workshop for consortia), collectively attracting over 900 participants

- **Webinars.** We significantly expanded our webinar program during 2018, including running regular membership webinars in all regions; several co-hosted webinars with partner organizations including Digital Measures, Digital Science, Interfolio, NRF (South Africa), and SciELO; our first webinar for research administrators, our most successful online event to date, with over 300 attendees; several ORCID in publishing webinars; and more

- **Town Halls.** We held town hall meetings twice in each region (Americas; Asia Pacific; Europe, Middle East & Africa) during 2018, to report on progress toward our mission and to ensure that members were fully briefed on Board elections

- **Conferences.** We participated in over 70 events spanning all sectors and regions

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PUBLICATIONS/SOCIAL MEDIA

- **ORCID blog:** During 2018 we published 88 blog posts. Overall page views of the blog reached 293,334 last year. The top three most viewed posts were:

  - Six Things to Do Now You've Got an ORCID iD (63,578 views)
  - Valuing Privacy and Transparency (12,043 views)
  - I registered for my ORCID iD. . . now what? (11,335 views)

- **ORCID repository.** All items in our repository are issued a DOI, enabling us to make connections with creator ORCID iDs and update ORCID records. During 2018, content was viewed 109,004 times and downloaded 22,986 times, compared with 28,758 and 9,806 respectively in 2017

- **Press coverage.** We tracked 4,530 mentions of ORCID in the media during 2018, more than double the number in 2017 (2,074), with a peak in October as noted above. We issued one press release, about the funder open letter, which was viewed 908 times

- **Social media.** This continues to be an important form of community engagement (see green area on chart). On Twitter, where we engage actively with our 25.2k followers (an increase of 29% compared over 2017), this resulted in 1.67m impressions and 5,145 mentions during 2018
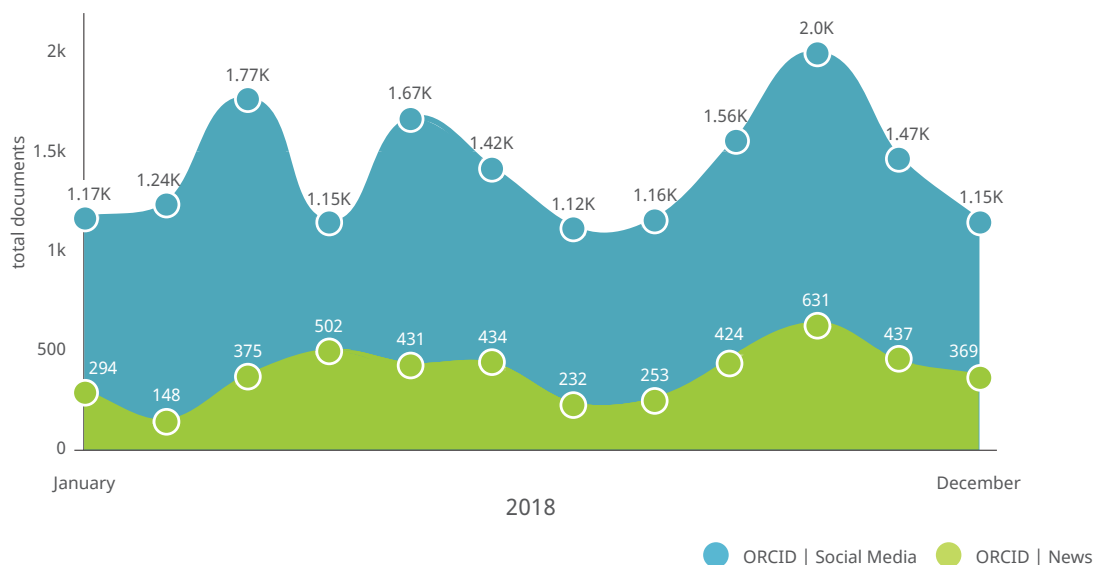
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