ORCID: Making a Difference in Identifying Researchers

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The academic research community is more robust and comprehensive than ever, with millions of intellectuals around the world making contributions to disciplines across the sciences, arts, and humanities each year. This global growth in knowledge brings an array of potential benefits to all sorts of fields, but the sheer volume of research being produced also creates a challenge: How do you identify the right scholars and experts when you need them?

This is the problem that an organization called ORCID was created to solve. ORCID is a multi-national, non-profit collaboration of academics, researchers, and enterprise representatives formed around a common goal. The system they've created—the ORCID identifier and its associated registry—could help solve problems that have been plaguing the research community for years.

The Name Problem

Today's integrated information technology has made it easier than ever to find articles and papers published by researchers from around the world, but until now it hasn't been able to solve one big problem: name disambiguation. Because there are millions of researchers in the world, and each language has its own set of common surnames, chances are high there are multiple individuals with the same or similar names—such as Thomas Anderson, Tom Anderson and T. Anderson—all researching and publishing within the same discipline.

Individual publishers and scholars often contribute to this ambiguity by using incomplete name formats in publications. Some publishers only present the first initial and last name of authors, leaving readers unsure whether T. Anderson is Thomas Anderson or Theresa Anderson. And individual authors sometimes add to the problem when they change the way they name themselves in manuscripts—one time as Thomas Anderson and another as T. Wayne Anderson—or when a name changes due to personal events such as marriage or divorce. All told, these name problems can create real frustration for academics trying to contact a researcher for collaboration, or for potential funders or publishers attempting to see a history of a researcher's work.

"Name ambiguity in the literature and in bibliographic and citation databases creates challenges in finding the right person at the right time," says David Kochalko, a technology consultant, former vice president at Thomson Reuters, and one of the co-founders of the ORCID project. "You find the wrong person, or you find someone you believe to be the right person, but it turns out that they're the wrong person."

Though there are some organizations and for-profit data companies that track researchers' work with proprietary ID technology, those records are often limited to specific academic disciplines, and are not always open to outsiders. So for scholars, school administrators, and anyone else interested in finding researchers and examining their publishing history, there has never been a single, convenient, and comprehensive place to look.

The ORCID Solution

In 2010, a group of representatives from publishers, universities, professional associations, researchers, and data providers came together to create an organization that would offer a solution to the name ambiguity problem. That organization is ORCID, and its registry service offers a way for researchers around the world to establish their own professional identities.

"ORCID is a component of the research infrastructure, part of the plumbing as it were, that connects information across disciplines, countries, and research sectors," says Laurel Haak, the organization's executive director. "We are more of a data conduit. We provide an identifier that researchers may use to attach to their works and affiliations. This makes it possible for their names to be expressed digitally and unambiguously. Other systems benefit from this, including grants management, publications workflows, and university faculty information management systems. This in turn benefits researchers through improved attribution, discoverability, and reduced time entering information and reporting."

ORCID is free to academics and researchers, who can register for their unique identifier on the organization's web site. This gives researchers a digital "serial number" that instantly disambiguates them from other peers with similar names. As journals, funders, and institutions begin to collect ORCID IDs from researchers and attach them to published works and faculty records, it will create a searchable professional history.

In the five years since its founding, ORCID has seen encouraging acceptance in the academic community.

"We currently have over one million registered users," Haak said. "Usage is international, with every country represented in our user base."

ORCID's goal is to continue this growth trajectory by not only registering more individual researchers, but also working with journal publishers, grant funders, academic data companies, and other organizations to embed ORCID IDs into their activities, thus creating an information ecosystem that becomes increasingly comprehensive over time.

Programmed for Collaboration

Among priorities for ORCID is continuing to grow its institutional-level use. The organization offers memberships for universities, and the datasets being created by its users can help institutions streamline and maximize areas of their work.

"ORCID offers an ideal channel for universities and research institutes," Kochalko said. "Often times, funding awards require joint or collaborative institutional participation. By relying on ORCID, these organizations may broaden their field of vision beyond known experts to find new and perhaps better-positioned collaborators for winning that next grant award."

"ORCID will have an increasing and positive impact on the research and development budgets of those

organizations adopting and embedding its services into their workflows," he continued. "It helps universities gain exposure for their staffs."

ORCID provides a free public API (application programming interface) that allows users to access an annual file of all registry data made publicly available by record holders. Institutions that become paid members get access to a more robust set of ORCID data through its member API that can help automate faculty activity reporting, institutional recordkeeping, intra-institutional comparisons, grant management systems, and intellectual property databases.

"The member API allows members to request permission from ORCID record holders to view, write, or update data," Haak said. "This supports verification of connections between researchers and their works and affiliations. The premium member API also supports push notifications to the member when an ORCID record is updated. This means members can automate the process for updating their local repository or institutional reporting system."

Membership is available to other types of organizations as well. Funders, publishers, professional associations, and third-party data companies all stand to benefit from the information aggregated by ORCID, and can subscribe to access the information for their own purposes. Organizations such as Thomson Reuters and Elsevier have linked their own research data products to ORCID's system, allowing their systems to identify authors by their ORCID IDs and to integrate information from ORCID's dataset into their own products. The API also allows member companies to edit and add to the ORCID database from inside their own technology tools.

As ORCID continues to grow, it will offer more benefits to universities and more opportunities for third-party companies, like those with faculty activity reporting systems, to integrate with their information systems to offer even more powerful tools to the academic community.

"It has the potential of becoming the enabling resource that provides breakthrough value in minimizing ambiguity errors in all manner of research outputs," Kochalko said. "It is not intended to and never will replace the valuable literature databases relied on by scholars. It is becoming, however, a truly valuable resource for all of the stakeholders in this ecosystem."

To learn more, visit the ORCID website at orcid.org.

About Interfolio

Interfolio launched its academic decision-making platform in 2012 as a response to user feedback about the need for better systems to support shared governance and committee decisions. Today, Interfolio has grown to support the entire lifecycle of faculty activity, decisions, and data, from hiring through tenure. With the addition of a system for faculty activity reporting and accreditation, Interfolio now offers the most comprehensive, user-friendly, and faculty-focused technology in higher education to over 200 clients worldwide. To learn more about what your peers are saying about Interfolio, visit www.interfolio.com or contact team@interfolio.com.