



ORCID Identifiers: Which Joe/Jo/João Do I Seek?

By Laura D. Paglione

Technical Director

ORCID, Inc

<http://orcid.org/0000-0003-3188-6273>

Is this the researcher I'm looking for? Name ambiguity is a common problem in the research community. Combine the challenge of many possible variants of a name with multiple people sharing similar names, and it can be a serious challenge to determine who is connected to what research contributions, and with what organizations they are affiliated. To address this problem, publishers, research funders, professional associations, universities, repositories, researchers, and data providers each try to sort out which contributions are tied to which people. They found that it was extremely difficult for each of them to address this challenge independently, so they came together in 2010 to found the independent, global, and non-proprietary organization named ORCID.

ORCID (<http://orcid.org>) is a non-profit organization dedicated to providing an open and non-proprietary registry of unique identifiers for researchers and scholars. ORCID identifiers connect researchers and scholars with their contributions through their incorporation into publication and other work metadata. ORCID works collaboratively with the research community to embed these identifiers in workflows, including manuscript submission, grant application, and data repository deposit.

Over the last year, ORCID Registry has been growing steadily and now over 830,000 researchers have registered for an ORCID iD. Since last fall, over 45 additional organizations globally have integrated ORCID iDs into their research workflows and systems. We've also seen the first instances of mandated use of ORCID identifiers, both cases from funders: the FCT in Portugal¹

and Autism Speaks.² More scholarly publishers and association publishers have incorporated ORCID iD requests in their manuscript submission and production processes, and are starting to include ORCID identifiers in published papers and in the metadata submission to CrossRef. Over 100,000 CrossRef records are associated with ORCID identifiers. Additionally, aggregators are harvesting ORCID identifiers as part of their indexing processes and have recently made it possible to search resources such as Web of Science and Scopus using an ORCID identifier.

In the last year, universities have stepped up their engagement with ORCID. Universities are now the largest segment of ORCID members and are supporting both direct researcher outreach and integration into research information and management systems, repositories, theses and dissertation workflows, and staff directories. Their integrations were on display at the May 2014 ORCID Outreach meeting.³ They are contributing use cases and documentation through the Sloan-funded Adoption and Integration program⁴ and the new Jisc/ARMA ORCID Pilot Program.⁵ Universities are establishing ORCID iDs among research faculty as an important person identifier.

More repositories have been integrating ORCID into their data structures and workflows,⁶ including DataCite, DSpace, Hydra/Fedora,

1 <http://www.marketwatch.com/story/national-funding-agency-for-science-and-technology-in-portugal-selects-elseviers-analytical-services-to-support-evaluation-of-rd-units-2014-06-10>

2 <http://orcid.org/blog/2014/02/19/link-your-orcid-record-your-funding>

3 <https://orcid.org/content/orcid-outreach-meeting-and-codefest-may-2014>

4 <http://orcid.org/content/adoption-and-integration-program>

5 <http://orcid.org/blog/2014/05/19/jisc-and-arma-announce-orcid-pilot-project-participants>

6 <http://orcid.org/blog/2014/03/10/orcid-repositories-and-researchers>

Figure 1. Users can link their ORCID profile to funders and affiliations.

HubZero. Significant tools that support repositories and others, such as ePrints⁷ and Drupal,⁸ now include ORCID support as well.

At ORCID, we have been working to extend linkage types, expand the number of external identifiers supported, and ensure that our metadata structures are compliant with international standards. We've enhanced the links and metadata for publications and other works to better support internationalization by adding fields for titles in alternate languages and country of publication. We've also mapped metadata fields to the CASRAI data dictionary to support system-to-system data exchange interoperability.

The ORCID Registry now allows users to link their record to current and past employment and education affiliations. These affiliations are linked to specific organizations through organization identifiers provided by Ringgold, an ISNI organization registry.⁹ Users are able to specify date ranges, and institutions can validate these associations, making it possible to answer questions like, “who works where and when,” or “who wrote what dissertation at what organization.”¹⁰

We've also added support for linking to funding information, including a connection to Über-

Wizard, a tool for finding funding award metadata from a number of agencies.¹¹ We leverage the FundRef registry to identify funding organizations and funding metadata is consistent with the CASRAI Data Dictionary. This new linkage provides information about who was funded by what funder and can support import of funding during manuscript submission processes, open access workflows, and support tracking of researchers for program evaluation and assessment exercises.¹² Several professional associations request an ORCID iD during meeting registration and as a part of an association membership profile.¹³

ORCID works with several groups to identify other research activities and outcomes that could benefit from an explicit connection to a unique person identifier. Recent work includes a collaboration with CASRAI to define a citation model to document and acknowledge peer review activities¹⁴ in response to requests from the community to include this information in an ORCID record. We also are engaging with the Research Data Alli-

7 <http://wiki.eprints.org/w/ImportFromORCID>

8 https://www.drupal.org/project/orcid_integration

9 <http://blog.orcid.org/blog/2013/12/09/organizational-affiliations-now-part-orcid-record>

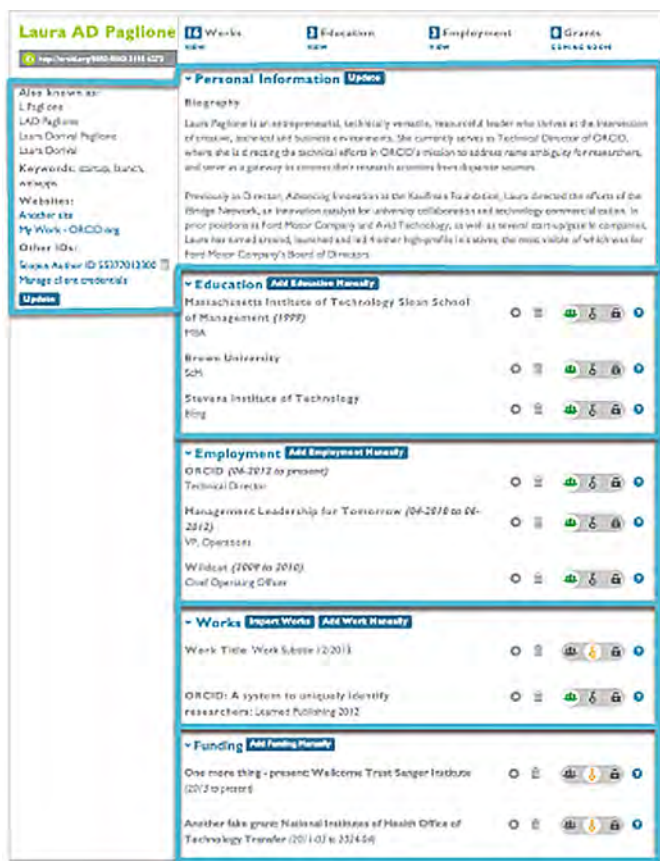
10 <http://orcid.org/blog/2014/03/20/these-dissertations-orcid>

11 <http://orcid.org/blog/2014/02/19/link-your-orcid-record-your-funding>

12 <http://blog.wellcome.ac.uk/2014/06/10/improvements-to-the-orcid-researcher-identification-system/>

13 <http://www.slideshare.net/ORCIDSlides/20131029-mcentee>

14 <http://casrai.org/about/announcements/orcid-%26-casrai-kick-off-new-standards-project-on-peer-review-services>



The ORCID Record contains:

← Biographical Data

← Education Data

← Employment Data

← Works Data

← Funding Data

Figure 2: An example of an ORCID record.

ance¹⁵ to help coordinate efforts across persistent identifier initiatives.

Important through all of this is how the ORCID Registry manages provenance and authority control. First, ORCID identifiers are added to a works metadata at the time of submission, enabling the precise association between researchers (ORCID iD) and their work (DOI or other persistent identifier). By the end of 2014, items that had an authenticated ORCID iD included upon submission and are subsequently made public (through e.g., a peer review process) will be directly added to the researcher’s ORCID Record, completing the attribution circle or “round trip.” For past works, the Registry will continue to provide the ability for researchers to retrospectively claim and link these works to their ORCID identifier.

Second, the ORCID Registry stores the source and date of these connections. Items added by re-

searchers are listed as self-claims. For connections made through workflows, as researchers interact with funders, publishers, research institutions, repositories, and other research organizations, ORCID stores the date that the information was added and from which organization or database. As researchers interact with multiple organizations during the course of their career, their ORCID Record becomes a source of annotated information about their activities and affiliations. Source and date is presented in the ORCID record, available through the user interface and API.

Finally, in the coming months ORCID will be extending our support of data provenance by enabling authorized organizations to endorse connections in an ORCID Record. Endorsements indicate an increased level of confidence in a connection between an ORCID identifier and research activity or affiliation. Universities are interested in being able to endorse affiliation connections for their contributing faculty, research staff, and students. And, works added

15 <https://rd-alliance.org/group/pid-interest-group.html>

through the round trip attribution circle mentioned above will include an endorsement from the publisher. Together, these ORCID data provenance features help the community make determinations of accuracy and confidence, and supports a number of additional workflows including Open Access rights management, institutional access management, and reviewer qualification processes.

ORCID is free to use for researchers, and the Registry supports free access to any data that researchers are willing to share publicly. We've recently extended our Public API to support authenticated access to ORCID iDs, significantly lowering

the barrier for integration of ORCID by small organizations or research projects. For more information about ORCID, visit <http://orcid.org>.

Register today for your own ORCID identifier and connect your Record to your affiliation. Use our search and link wizards to connect to your past works and funding. Encourage your organization to embed ORCID identifiers in manuscript submission and production workflows using authenticated pathways, and help to create a rich network of resources, platforms, and providers who are linking components of the scholarly communications ecosystem using person identifiers.