SHORT COMMUNICATION

Open Researcher and Contributor Identifier and other author identifiers: Perspective from Pakistan

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Abstract

The Open Researcher and Contributor ID (ORCID) is a globally trending initiative for author name disambiguation and serves as a 'digital curriculum vitae' for displaying an individual's research output. Although there are several other tools similar to ORCID, the collaborative efforts by ORCID make it the most attractive option. Most of the organizations and publishers are increasingly adopting ORCID in their systems, and authors from West and other parts of the world have attempted to create awareness about ORCID initiative. However, researchers from Pakistan and other developing countries should be introduced to this concept and be encouraged to adopt to such initiatives. Therefore, this paper aims to present a brief introduction to author identifiers, with special focus on the ORCID.

Keywords: Author Identifier; Open Researchers and Contributors ID; ORCID; Scholarly publishing.

Introduction

How many of us have been troubled looking for authors and their research output? We believe the answer is "most of us". In the era of internet where science is trending at an extensively rapid pace, disambiguating among very common surnames such as Kim, Smith, and Wang is very difficult. Name variations, due to the publishing error, omission of middle names or changes in the family name, are very common and confusing when finding publications of an individual. A single name can take many different forms such as Aamir Raoof Memon, Memon A Raoof, Memon AR, Memon Aamir, or even Memon A, each with a different digital signature. There are instances such as marriage or divorce or change of names in the middle of the career, and readers might not be aware of the fact that the same person has written, over a space of time, several papers with different names. Moreover, the author might not have one email and may be simultaneously using different email accounts listed in his/her papers. The problem is further increased when researchers change institutions over time and their affiliations or name of the organization changes, or authors with multiple affiliations may use different affiliations for different publications. Additionally, an author may research in two to three different areas and some of his/her research might seem totally unrelated to author's other publications.

Cultural context is extremely important in contributing to the current difficulties in disambiguation of identities. For example, Indian authors have many common surnames such as Agarwal, Gupta, Sharma, Mukherjee, and Singh whereas some may have two-part surnames like Sen Sharma, Guha Thakurta, and Ghosh Dastidar.[1] Similarly, Wang, Chen, Chang, Zhang and Li are the most common surnames for Chinese authors, and almost 85% of the Chinese population has one of only 129 surnames.[1,2] In Korea, the most common surnames include Kim and Park.[1] Conversely, many authors in Indonesia have only one name while Brazilian authors may have many common surnames, and these might be abbreviated, or in some cases, removed to simplify publication.[2] Moreover, depending on the requirements of the journals, author names may appear differently. It may also be noted that specialized abstracting databases such as US National Library of Medicine's PubMed are limited in searching for author surnames.[3] Proper identification of authors and their work is crucial for everyone involved in scholarly communications, especially for funding, tenure tracking and promotions. Thus, a unique author identification system, as a 'digital curriculum vitae', is needed to solve the issue of author name ambiguities across most countries and continents, and to improve the tracking of variable bibliographic records of the same author's papers across several databases.[4] Thus, this paper presents a brief introduction to author identifiers with special focus on the Open Researcher and Contributor ID (ORCID).

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The Open Researcher and Contributor ID: Introduction, growth, and features

The Open Researcher and Contributor ID (ORCID; http://orcid.org/) initiative was launched in 2012 to address the problem of name ambiguity among authors across different fields.[4] ORCID is a non-profit and non-proprietary organization supported by global community of organizational members including research organizations, funders, publishers, and others involved in scholarly communications.[3,4] It is multi-disciplinary and international in scope, and serves as a type of 'digital curriculum vitae' for researchers across the world.

ORCID has gained rapid progress just after six years of its inception. As of June 2018, more than 4.9 million ORCID accounts have been created and the number continues to grow (https://orcid.org/statistics). As a non-profit organization, ORCID is dependent on funding from scholarly societies, funding agencies, its members and partners. There are 895 ORCID member organizations (https://orcid.org/members) and 18 Consortia members (https://orcid.org/consortia). Moreover, over 50 journals and publishers require ORCID iDs in their Publication Workflows (https://orcid.org/content/requiring-orcid-publication-workflows-open-letter). In general, ORCID is now supported by major publishing giants including, among others, Thomson Reuters (now Clarivate Analytics), Nature Publishing Company, Wiley, Elsevier, Public Library of Science, Springer, and CrossRef, as well as major funders such as Welcome Trust and the US National Institute of Health, and leading universities and societies of the world.[4] The famous editorial management systems such as ScholarOne, Aries Systems, eJournalPress, PKP Open Journal Systems have also adopted built-in ORCID support (https://members.orcid.org/api/vendors/publisher-tools).[1,4] Moreover, research information systems (e.g. Plum Analytics and InfoEd etc.), open access repository platforms (e.g. Eprint and DSpcae etc), and databases and digital archives (such as PubMed, Web of Science, and Korea MedSynapse etc.) have built-in ORCID support.[1] ORCID has also connected with peer review recognition systems and organizations such as Publons, F1000, and American Geophysical Union (https://orcid.org/blog/ 2017/09/14/peer-review-orcid-update).[3,5] Although support for ORCID has been growing in West as well as Asia, Africa and Latin America, and many authors have attempted to create awareness about author identifiers, the concept is less known in Pakistani context.[1-6]

ORCID identifiers are presented as 16-digit alphanumeric characters, e.g. http://orcid.org/xxxx-xxxx-xxxx-xxxx. A webpage or Uniform Resource Locator (URL) is assigned to an author, e.g. http://orcid.org/0000-0002-3203-418X, or 0000-0002-3203-418X, listing the full name, "also known as" names, a brief biography, a list of educational institutions attended (years, degree obtained, and major field of study), an employment history (employer name, dates of employment, and position held), a funding section (type, title of project, brief description, amounts, dates, and grant numbers), and a "works" section (journal articles, books, or book chapters, dissertations, conference presentations, intellectual property, and datasets). ORCID registration can be done at https://orcid.org/register, and information can be added to ORCID by signing in to the system through https://orcid.org/signin. ORCID records can include unique identifiers e.g. digital object identifiers (DOIs), PubMed ID, grant numbers, patent numbers, and a wide variety of other external identifiers. ORCID is researcher-controlled, that is, the researcher decides what information is included in his/her ORCID record. In order to ensure online information security concerns, ORCID provides easy-to-use default privacy settings as well as custom levels for each item. A researcher can keep his/her profile as public, share it with a third party, or keep it completely private. However, if all information is kept private, anyone viewing the profile will see the message "No public information available".[6] Adding articles to ORCID is easy given that the ORCID is compatible with many open repositories, digital libraries and platforms such as CrossRef, Scopus, Web of Science, Science Central, Korea Med Synapse, Europe PubMed Central, and several others, promoting fast and transparent transfer of scholarly information globally.[4,5] Manual entry of information, not available in these open repositories, digital libraries and platforms (unpublished scholarly work, for example), to authors' profile is also possible. Additionally, ORCID scheme supports multiple languages, and therefore, holds promise for increasing international visibility of researchers and authors working in non-Anglophone countries.[4] Furthermore, ORCID partnership with Publons allows scholars (with a Publons account) acquire a "peer review section" on their ORCID profiles. Thus, ORCID iDs serve as instruments for avoiding 'fake' reviewer comments by 'ghost' experts. Also, ORCID has a tool by which bibliographic data from BibTeX (.bib) files into one's ORCID record can be imported.[1] The ORCID usually appears on the print or online copy at the top of an article.

Open Researcher and Contributor ID: Strengths, Limitations, and Recommendations

The strongest strength of ORCID as a measure to

eliminate author ambiguities is that this unique identifier remains associated with an individual throughout the life, even if changes to his/her name or professional affiliations are made.[3] Another prominent feature of ORCID is that it is available free of charge to anyone involved in scholarly communications (including freelance editors and others), unlike other proprietary registering services, can have an ORCID account.[4] The compatibility and integration of ORCID with a wide variety of bibliographic databases and exchange of data with other unique author identifiers has made it "unique" in itself. The most likely reason for this is that the ORCID seems committed to working collaboratively with publishers, societies, and others involved in scholarly communications.

Despite the wider acceptance and strengths of ORCID, there are some concerns associated with it. Since ORCID is not a repository, attachment of publications, datasets and other scholarly materials is not possible. However, the items can be linked through the URLs. ORCID's partnership with CrossRef and DataCite is a further step to address this problem.[7] Another problem is keeping the ORCID profile up-to-date. For example, recent evidence suggests that most of the registered accounts are inactive and outdated.[5,6] While some authors are highly hopeful about ORCID, others have raised concerns for identity-sharing problems, use of same ORCID account by multiple authors, peer review fraud and research misconduct.[1,4,8] However, since Publons is actively improving its standards and quality through collaboration with Clarivate Analytics and ORCID, and if legitimacy and transparency is ensured through the collaborative efforts of ORCID and Publons, then the ORCID iDs may serve as instruments for avoiding 'fake' reviewer comments by experts with 'ghost' identities.[9] With increasing popularity of ORCID, most of the publishers (such as Wiley) have mandated ORCID on their authorship, which might compromise an individual's right to choose to have an ORCID or not.[2,3] Concerns have also been raised over the ORCID's monopolization of the scholarly communication; thus, some journals such as *Clinical Orthopaedics and Related Research* do not mandate authors to use ORCID.[1,5,8] Furthermore, ORCID lacks social networking capabilities and citation metrics.[3,4]

As of now, ORCID's popularity is on rise and publishing organizations, research institutions, learned associations, and libraries across the world are helping expand the initiative. We do not recommend mandating ORCID; however, we suggest that the journals should revise their journal instructions to encourage the use of author identifiers. Journal editors, higher education institutes, and funding agencies in Pakistan are advised to suggest their members and contributors to have an ORCID account, which may serve as a 'digital curriculum vitae' to track their research output. Journal editors from Pakistan are advised to add ORCID data to Journal Article Tag Suite (JATS) extensible markup language (XML) files.[10] Universities are encouraged to improve awareness and learning about topics in scholarly communication through their official websites. A good example can be seen as that of the Harrell Health Sciences Library website (http://harrell.library.psu.edu/bibliography) and the Duquesne University Gumberg Library (http://guides.library.duq.edu/scholarlyprofile), offering free online tutorial resource — an excellent starting place for those who are interested to improve the dissemination of their publications.[7,11]

Alternative Author Identifiers

Several attempts have been made to increase the visibility of research output and for author name disambiguation. In this regard, some of the common platforms with social networking capabilities include ResearchGate and Elsevier's Mendeley.[7] Platforms for generating digital curriculum vitae such as ResearchGate and US National Institute of Health's Science Experts Curriculum Vitae (SciENcv; http://ncbi.nlm.nih.gov/sciencv) also exist.[5,11] Similarly, field-specific, country-specific, and some author identifiers covering a wide area of science may also be found. Examples of such author identifiers include RePEc Author, LATTES, VIAF, NARCIS, arXiv Author ID, Names Project Mimas, Chinese NSL Author service, Author Claim, and the commonly known Scopus Author ID, Thomson Reuter's Researcher ID, and International Standard Name Identifier (ISNI).[1,6]

Scopus Author ID is a proprietary product, initiated in 2006. Although it has several advantages, it is not free of limitations and criticisms. Similarly, Thomson Reuter's Researcher ID, launched in 2008, has its pros and cons. ISNI, as a 'bridging identifier', was launched in 2012; however, it is also not as effective as ORCID. Detailed information about author identifiers and similar initiatives may be found elsewhere.[4-6]

Conclusion

The Open Researcher and Contributor ID is a global step to create a 'digital curriculum vitae' of authors by eliminating ambiguous identities. Therefore, journals editors from Pakistan are advised to include ORCID in their published papers. In addition, universities, funding agencies, and authors are suggested to adopt this initiative for improving scholarly communications.

Disclaimer: Both authors have the ORCID Account.

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