

## Academic Identity: An Overview

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Academic identity is quite popular in the recent years amongst researchers due to its usage in the research report system. It is essential for measuring research impact of an author or organisation. The article explains about various academic identity systems such as ISNI, Google Scholar Profile, Researcher ID, Scopus ID, RePEc and ORCID ID. The purpose of the article is to discuss the use of academic identity in the research ecosystem and its benefits. The article elaborates the possibility for integration of author identity in the research report system such as manuscript submission system, project proposal, grant application, award application, ranking system, etc.

### Introduction

For the past few decades increasing amount of knowledge is being generated by scholars all over the world. Research is being conducted in a large number of areas on multidisciplinary nature wherein researchers and scholars are getting involved from different disciplines. Academic and R&D organisations are keen to setup institutional repositories with an aim to contribute to the open access movement. Scholars are often interested not only in research articles but also in researchers and their contributions to the scientific research. The problem is how to find a researchers and their association with specific body of research work. Authors often use different variation of their name in the different countries and states, mix-up initials, several researchers have same name in the same organisation and very often change their institution affiliation. Content identifiers such as ISBN, ISSN, DOI are playing a vital role in the research eco system. These identification system have evolved to a maturity level and are recognised as essential standards in the knowledge centre and publishing industry. Author identification is also being taken up seriously in recent years with evolving parameters and indicators for research evaluation that are used for measuring individuals and organisations. There is a growing demand for unique identity of researcher to facilitate tracking of research activity in the research eco system. The article elaborates on various author identification system such as ISNI, Scopus ID, Researcher ID, Google Scholar ID, RePEC and ORCID ID.

### ISNI

International Standard Name Identifier (ISNI) is a 14 digit global standard number for identifying the contributor for their unique work including researchers, artists, performers, producers, publishers, aggregators, R&D organisations and academic institutions. The objective of the ISNI International Authority (ISNI-IA) is to assign a persistent unique identification number to the contributor, so that the issues of name ambiguity can be solved in areas such as author name in scholarly article, institution or library name in consortium based access, organisation name in the funding agency, etc. The ISNI is an ISO standard (ISO 27729:2012) published on 15<sup>th</sup> March, 2012. The ISNI-International Agency (ISNI-IA) is a not-for-profit organisation founded by group of organisations consisting of International Confederation of Authors and Composers Societies (CISAS), Conference of European National Librarians (CENL), International Federation of Reproduction Rights Organisations (IFRRO), International Performers Database

Association (IPDA), Online Computer Library Center (OCLC) and ProQuest. As on 30<sup>th</sup> September, 2015, ISNI holds 8.99 million identities including 8.4 million individuals and 0.4 million organisations. The source data for ISNI come from 30 international databases and more than 40 major national and research libraries (ISNI, 2012). ISNI Registration Agencies are facilitator to interconnect ISNI applicants and ISNI Assignment Agency. Bowker is a registration agency for the individual and publishing organisations to get ISNI number, Ringgold is also a registration agency for academic institutions, R&D organisations to get ISNI number. BnF (Bibliothèque National de France) also acts as registration agency for registers of individuals and publishing organisations in France.

### **ResearcherID**

Web of science (WOS) is another well-known citation database, launched by Eugene Garfield in 1960 and now the product by Thomson Reuters. WOS covers more than 12,000 high impact journals, 1,60,000 conference proceedings and citation information is collected from seven citation databases including Social Science Citation Index (SSCI), Science Citation Index Expanded (SCI Expanded), Conference Proceedings Citation Index Science (CPCI-S), Arts and Humanities Citation Index (A&HCI) and Conference Proceedings Citation Index-Social Sciences and Humanities (CPCI-SSH), Index Chemicus (IC) and Current Chemical Reactions (CCR-Expanded)(Thomson Reuters, 2015b). Researcher ID is free service provided by Thomson Reuters from the year 2008 onwards and is integrated with WOS. The objective of ResearcherID is to create author identification system and solve the issues of author disambiguation problem. The author gets a ResearcherID through self-registration or registration through institution or through the Researcher ID web interface ([www.researcherid.com](http://www.researcherid.com)) and he / she is able to list all publications from WOS database and manually add journal articles to the publication list. It is highly sophisticated interface to manage all research activities of an author and help the user to solve author identification issues. Through ResearcherID Labs, an author can view citation counts, average citations, h-index and create visual collaboration networks and citing articles networks, which is created from WOS citation data. The visual collaboration network could be integrated with scholar's personal website and blog through ResearcherID Badge. ResearcherID has more than 2.70 lakhs IDs and assists the scholars to find citations, collaborators, key thought leaders, speakers, editors, and reviewers (Thomson Reuters, 2015).

### **Scopus ID**

Launched in 2004, Scopus is the largest citation database by Elsevier Science. It is a citation database of multidisciplinary scientific literature and covers more than 59 million records including trade publications, books, open access journals, conference papers, etc. Scopus contains 21,000 peer-reviewed journals, 560 book series, 83,000 worldwide events and 21 million patents, etc (SCOPUS, 2015). Scopus Author Identifier or Scopus ID is the unique ID, by-product of Scopus to distinguish author having similar names. Scopus ID is automatically generated, when an article is indexed in the Scopus database. The variant name of the author are grouped together using an algorithm that matches author based on their affiliation, address, subject area, dates of publication citations and co-authors. The database has the facility called author feedback system, through which an author could make the request to merge his various name and also the author could verify his publications. Since the Scopus ID is generated by the system, any author, whose article indexed in the SCOPUS database will get a Scopus ID.

### **Google Scholar Profile**

Google Scholar is the product of Google, launched in November, 2004. It is a search interface specifically for scholarly

literature, including peer-reviewed journal articles, conference papers, books, theses and dissertations, repositories, abstracts and technical reports from all the subject. The source data is crawled from a wide range of information sources such as commercial publishers, professional societies, preprint repositories, open access journals and journal articles available across the web (Google Scholar, 2004). Google Scholar never declare the size of database, however it is estimated that number of scholarly documents available on the web, as on May, 2014 Google Scholar is 160 million (Khabisa & Giles, 2014). Out of 160 million, 100 million which is 87% of scholarly document published in English language. In July, 2011 Google Scholar launched another service called Google Scholar Citation. The purpose of this service is to calculate author's citation matrices from their publications, list all the publication from different sources, watch who is citing their papers and make their profile public. Researchers uses the Google Scholar Citation profile to showcase their research activity such as citation count, h-index, i10index to the scholarly community and also export citation information in the standard format such as BibTtxt, EndNote, RefMan, CSV and that can be used for various citation analysis. Since Google Scholar is available free-of-cost, most of the scholars use Google Scholar for bibliometric studies.

### **RePEc**

Research Papers in Economics also known as RePEc is a collaborative project by scholars in economic discipline from all over the world. The objective of this project is to collect research works such as working papers, journal articles, books, book chapters, datasets, software components and bibliographic database from leading academic and R&D organisations and to enhance the scholarly communication in economics and related disciplines. The RePEc database contains information, which includes bibliographic information on working papers published by institutions and individuals, bibliographic citations from the leading journals, bibliographic information on books and chapters published by institutions and individuals, software descriptions, etc. The RePEc project has grown from the project called Working Papers in Economics (EoPEc) as a single archive in the year 1993. As on 30<sup>th</sup> September, 2015, RePEc has collected 1.9 million research pieces from 2,300 journals and interconnected 1800 archives from 86 countries (RePEc, 1999) . About 45,000 scholars are registered in the RePEc Author service to create RePEc CV to link their published and un-published documents with their profile.

Archived data in the RePEc database is available to the scholarly community through various services such as IDEAS (<http://ideas.repec.org>), EconPapers (<http://econpapers.repec.org>), NetEc and etc.

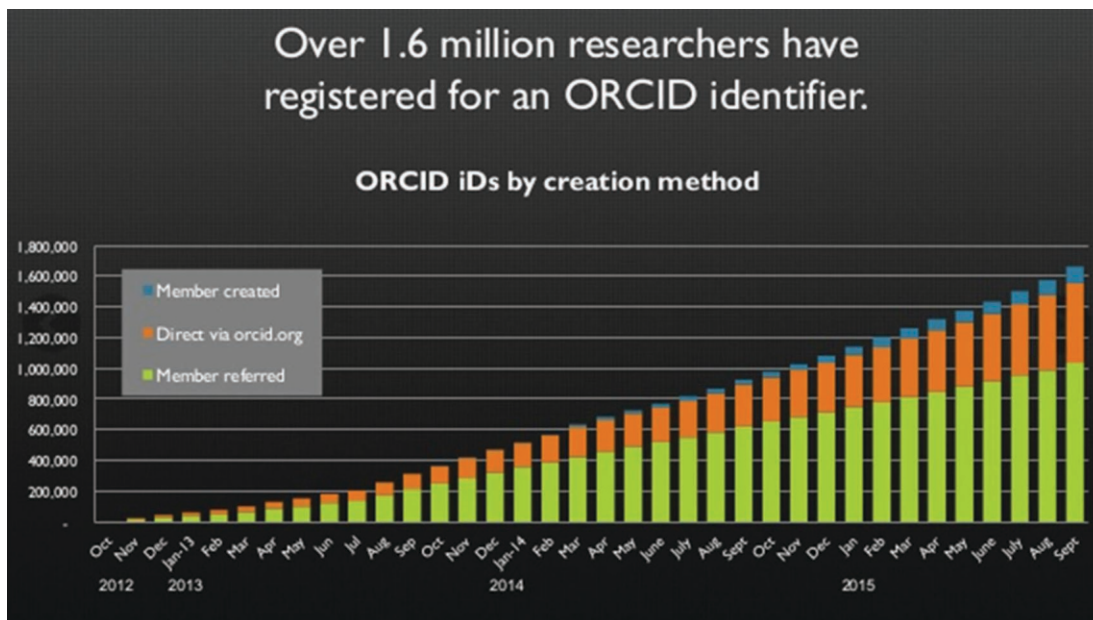
### **VIDWAN: Expert Database and National Researcher's Network**

Vidwan: Expert Database and National Researcher's Network is the premier database of profiles of faculty members, scientists working at leading academic institutions and other R&D organisations involved in teaching and research in India and abroad. It provides important information about experts such as expert's background, contact address, areas of expertise, affiliation, project handled, article published, etc. As on 30<sup>th</sup> September, 2015 the database contains 17,700 profiles of experts from 2030 leading academic institutions, R&D organisations including IITs, CSIR, DRDO, etc. The database can be searched on parameters such as name, designation, area of expertise, organisation, state, etc. Profiles of experts can also be browsed using Web of Science subject categories and organisation categories. Login IDs and passwords have been issued to experts whose profile is available in the database with a persistent URL and VIDWAN ID enabling them to update their profiles. The database integrated with ORCID ID to update publication from the ORCID database.



## The Open Researcher & Contributor ID (ORCID)

Currently there are a number of fragmented author identification system, in which many institution, societies, publishers and funding agencies use their own identification scheme (ex. Scopus ID from Scopus, Researcher ID from Web of Science, LATTES for Brazillian researchers, RePEc for scholars in economic discipline) and interconnection and discovery of scholarly output is complicated one. Now a days most of the scholarly works are inter-disciplinary and researchers involves from various discipline. Integrating existing identification system to manuscript system is a difficult one and also completed task. An open and global level author identification system provide an opportunity to scholars to give proper attribution to their scholarly work and facilitate scientific discovery and tracking the research impact. The Open Researcher & Contributor ID (ORCID) is an unique persistent identification system started in 2009 based on the initial proposal by Nature Publishing Group and Thomson Reuters (Fenner, 2011). In the year 2010, ORCID got incorporated as a non-profit organisation with governing board of Directors and supported by global community of 400 organisational members including R&D organisation, academic societies, publishers, funders and other stock holders in the research ecosystem. ORCID launched registry service to the public by the end of 2012 and more than 1.6 million researchers has registered for ORCID ID as on 30<sup>th</sup> September, 2015 (Miyairi, 2015).



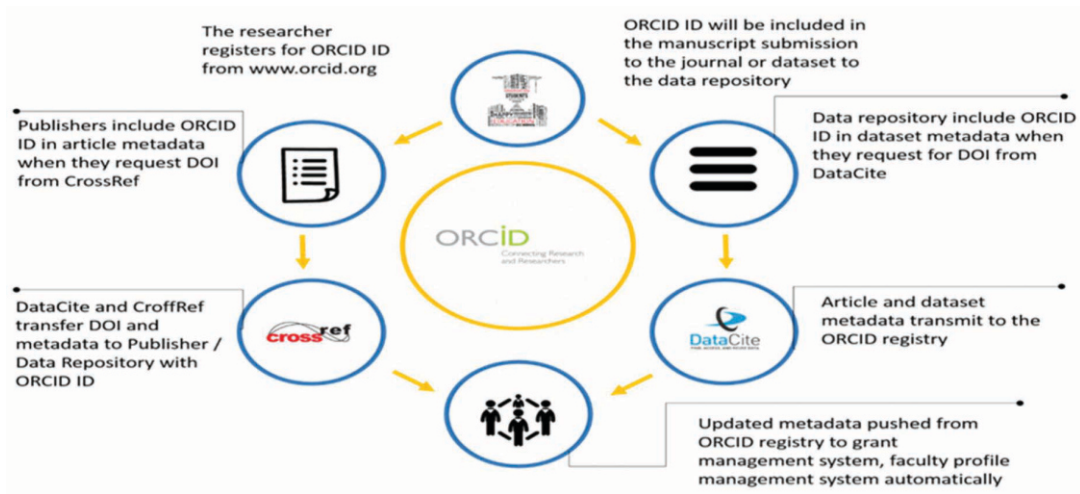
Number of registration for ORCID ID from October 2012 to September, 2015

## ORCID ID Integration

Since ORCID ID got popular among academic community, publishers have started to embed ORCID ID in their manuscript submission system including Hindawi Publishing Corporation and Nature Publishing Group (NPG), Aries, ScholarOne, and eJournalPress. Hindawi had started submitting scholarly work in XML format to CrossRef with ORCID ID since March, 2013 and NPG since June, 2013. Funding agencies including National Institutes of Health, USA and Wellcome Trust, UK have integrated ORCID ID in the grant application processes. Existing academic identity providers such as Thomson Reuters and SCOPUS have integrated their identity system with ORCID to exchange bibliographic information with each other. CrossRef and DateCite are the leading not-for-profit organisations



providing DOI for research publications and datasets. CrossRef has created more than 75 million DOIs for journal articles and book chapters, whereas DataCite has generated 6.5 million DOIs for various datasets(L. Haak, 2015). Crossref and DataCite already received more than 5 million metadata records from the publishers with ORCID ID. ORCID has launched the service called automatic update of information related to scholarly work from Crossref and DataCite to ORCID Profile.



### ORCID ID Integration with CrossRef and DataCite for Metadata Interoperability

#### Use Case

Simple creation of ID in the ORCID registry would not serve the purpose. To be more effective the identifiers should be incorporated wherever research activity is reported. The ideal place to start the integration is manuscript submission system, where the author should provide the article with ORCID ID or submission process authenticated through ORCID registry. The researchers / authors could save time and effort to re-typing all his personal information during manuscript submission and the publisher could easily provide proper representation to the research work and also help them to link with existing contributions. Finding accurate citation to the author is intricate process due to the variant names of authors, the ORCID ID will greatly help the citation information providers to give accurate citation for the scholar’s research contributions. Currently many institutions request their faculty members and researchers to deposit the accepted manuscript in to the institutional repositories for local use. The ORCID ID help the institutions to update the metadata and citation information from ORCID registry as well as other citation information providers through API. Apart from the integration, ORCID ID should be displayed in the prominent places wherever research activity is reported. LL Haak and others recommended for inclusion of ORCID ID at least in the following scenarios (L. L. Haak, et al., 2012).

1. as a footnote or in-line in the HTML and PDF versions of published manuscripts;
2. in the article metadata used on journal websites;
3. in the article metadata sent to CrossRef and bibliographic databases such as PubMed;
4. in downloadable reference lists using the RIS, BibTeX or Endnote format.

## Summary

Unique identity is quite popular amongst researchers. It is essential to distinguish an author or an organisation for measuring research impact. To make it more effective, all the stake holders including students, researcher, faculty, academic and R&D organisations, scholarly societies, publishers and funding agencies should work together to integrate the unique identity wherever the scholarly communication is happened or reported. The article discuss about various academic identifiers such as ISNI, SCOPUS ID, Researcher ID, Google Scholar ID and RePEC and give more emphasis on ORCID ID and their use in the scholarly community. The higher education councils and funding agencies at the national level should take the lead to promote use and necessity of ORCID ID in the research ecosystem. Moreover, use of ORCID ID should be made mandatory field in various applications such as grant application, project proposal, ranking system, honours & awards application, etc. Academic institutions and R&D organisations should encourage faculty members and researchers to get ORCID ID and make it as a mandatory field in the research ecosystem such as research information system, faculty profile management, institutional repositories, electronic thesis and dissertations, etc.

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