Review

Researcher's Personal Profile on Academic Social Network Sites: Connection, Visibility, and Impact of Academic Work

Jay Shah

Author(s) affiliation

Patan Hospital, Patan Academy of Health Sciences (PAHS), Lalitpur, Kathmandu, Nepal

Corresponding author

Jay Shah, MBBS, MS
drjaywufei@hotmail.com

ABSTRACT

A researcher's personal profile helps communicate and increase the visibility for academic work. Online personal profiles greatly enhance sharing of information and interaction with the academic community. This interaction and visibility further benefit in career advancement, funding, citation score, and many more. Academic Social Network Sites provide facilities for the creation of a personal profile that links the research and publications which can be verified easily and helps generate author-level metrics, unlike the traditional biodata.

Keywords

Academic social network sites, impact, researcher's personal profile, visibility

INTRODUCTION

A researcher's Personal Profile (RPP) is an effective way to communicate and increase the visibility of academic research and publication.[1,2] Traditionally, academic conferences, seminars, and meetings have been the platforms to exchange and share academic work. The development of Academic Social Network Sites (ASNs) has facilitated researchers and authors to create a personal profile to share academic works and promote collaboration.[3,4,5] The profile helps associate the research and publications for better interaction and enhance the impact of academic work in a wider community. This interaction and visibility further benefits: career advancement, funding, citation score, and many more. The objective of this mini review is to make researchers and academics aware for and create their academic personal profile to increase visibility of the academic work and to facilitate interaction in the academic community

METHODS

The search terms "researcher's personal profile, academic social network sites, author-level metrics" were used to search for relevant articles on "Google Scholar, PubMed, NepJol". The relevant articles on the

researcher's personal profile and related information on the topic were grouped under sub-headings in this mini-review for easy comprehension.

Researcher personal profile and Academic Social Network Sites (ASNs)

The Academic Social Network Sites (ASNs) facilitate scientists to: share resources, enhance further research and publication, promote communication and collaboration of research data among academics around the globe.[3-5] The ASNs provide the platform to create researchers and author profiles to upload academic publications and their links. It also helps to track publication and professional interaction. There are many ASNs tailored to attract researchers. There are 3-types of ASNs based on their properties for: 1) Openness: freely available for membership (e.g., ResearchGate, RG); 2) Originality: started as an ASN (e.g., Academia.edu, RG) or additional product of existing sites to become ASNs (e.g., Mendeley, ScopusID, etc); 3) Specialization: specializing in one topic (e.g., MalariaWorld.org) or for a multidisciplinary network (e.g., MyScienceWork).[6] The personal profiles on the ASNs platform help in building data sources for further study on the impact of the individual researcher in the relevant field.

Researcher personal profile, for example, Google Scholar profile (GSP), is an easy and useful platform to create a personal profile. The GSP is useful for sharing personal work on research and publication, with the further provision of citations numbers. It also provides detailed information such as: cited by, the h-index, and i10-index metrics; that are updated automatically.[5,7,8] The in-built co-authorship networking of GSP allows adding co-authors to let others know that you're on Google Scholar (GS) and help stay in touch with new researchers in the relevant field by using automatic alert. The online profile also helps to track and inform when other researchers cite the publication. The GS search engine has a wide coverage of online publications (including grey literature like undergraduate papers, slides, white papers, etc.) unlike bibliographic databases (like PubMed, Scopus, Web of Science, etc.).[8-12] Thus, citation counts on GS may be higher than other bibliographic sites. Among many ASNs available to academic researchers for creating personal profiles, each provides a varying degree of functionality and visibility, Table 1.

The impact of RPP varies on different ASNs

The personal profile on various ASNs differs in the information they provide on the academic research writing and publications data for: total numbers of research work, citation counts, number of reads, cited by, h-index, i10-index, and links to other personal academic profiles, Figure 1.

The profile on Google Scholar usually has more information and citation because of its wider coverage of online resources. The ResearchGate (RG) profile provides information on the number of

Table 1. Useful 10-common Academic Social Network sites (ASNs) for researcher's personal profile

| Parameters	Scrapping Group (n=31)
Academia.edu	Researcher Network platform to share academic research papers with a database of >22 million papers, and 31 million visitors a month
Altmetric	Part of the Digital Science portfolio of companies to help track and analyze dissemination, and impact of research publication
Baidu Scholar	From Baidu search engine indexing >400 million literature resources optimized for retrieval, analysis of academic literature globally
Google Scholar	From Google, provides a simple and broad search covering >80% of scholarly literature in English, includes >100 million publications
Mendeley	From Elsevier, developed as a reference manager also function as ASNs to collaborate and discover researchers online
ORCID	A non-profit, community organization, the Open Researcher and Contributor ID uniquely identify and connect researcher and scholars
Penprofile	An academic community that connects students, scholars, and institutions to exchange and share ideas, academic works
ResearcherID	Thomson Reuters, a unique identifier for researchers to add publications, track citations, and manage Web of Science record
ResearchGate	Connect researchers with >20 million profile users to connect, share works; provides data on total read, cited by, h-index and RG score
Scopus AuthorID	From Elsevier, Scopus with >22,000 titles from >5,000 publishers help track publications, citations, and build metrics
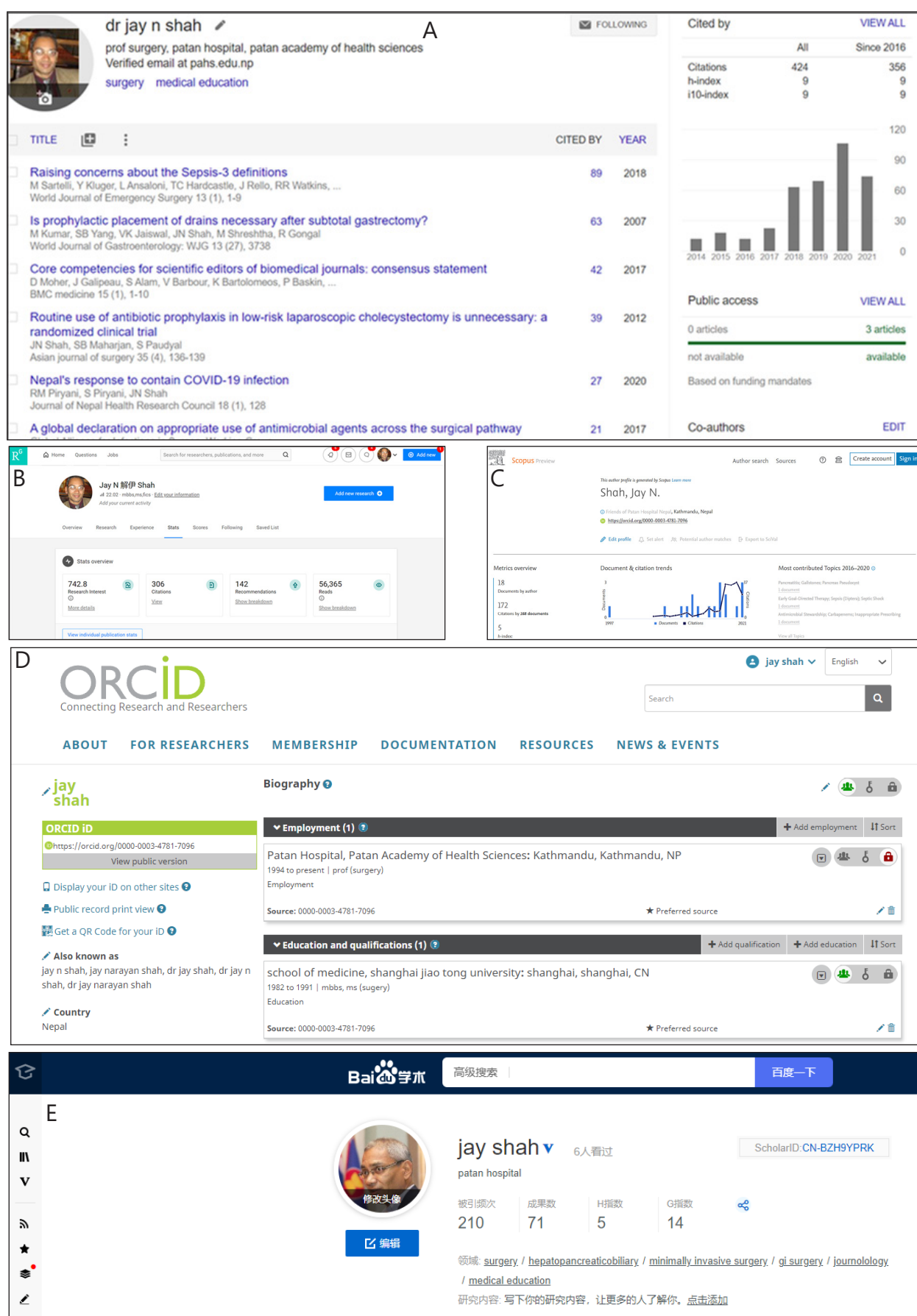
Fig. 1. Information, visibility and functionality of researchers personal profile varies on different Academic Social Network Sites (ASNs), for e.g., A. Author's own profile on Google Scholar, B. ResearchGate, C. Scopus Author ID, D. ORCID ID, E. ScholarID on Baidu.

reads, the institution, and the country. However, RG usually requires manual upload and confirmation, which can be tedious. ScopusID is similar to GSP but can be less informative.

The ORCID (Open Researcher and Contributor ID) is a unique digital identification for individual authors, which also requires manual upload of publications unless the publishers are linked to it. The ORCID and Baidu Scholar have additional important functionality to allow data transfer/share, and options for links to other personal profiles, Figure 1.

Early-career researchers are increasingly aware of the benefit of personal profiles and are active with personal profiles on various ASNs.[13] The research impact is not only a social but also a political process, and the impact has its importance for faculty, administrators, and reviewers. The research publication is often used to evaluate the scholarly impact of candidates for jobs, tenure, and promotion.

Research shows there is a need to add value by the internationalization of non-English academic output on ASNs to overcome the Western-centric academic and scientific phenomenon.[14] Out of sight is out of mind. The unequal opportunity for authors and reviewers from Asian communities with different cultural traditions is largely in part due to language barriers. Thus, interaction and self-promotion on ASNs from Asian countries like China and Japan have low visibility despite their research capabilities.[15] Requiring manual upload of articles and verifying the collaborations, which may extend to copy-right issues, is another challenge.[16]

As ASNs vary in their coverage of online data, the evaluation for impact should not depend on a single personal profile platform, for example, GSP, which may be biased and a disadvantage for the non-English publications.[17] The manual upload may help gain visibility of publications that may not be available for online search engines, e.g. on the ResearchGate database with 130+ million publications and the possibility to connect with 20+ million researchers. The ORCID also has similar functionality of manual upload, and its unique digital identification has the advantage to include various emails and different name/surname combinations of researcher, Figure 1.

Creation of profiles and uploading articles on ASNs significantly increase the discoverability and citation of publication.[18] Creation of profile to link research and publication facilitate collaboration with scholars to help enhance scientific writing for better clarity, visibility, and reproducibility of the academic work.[19] This is reflected in author-level metrics on the personal profile.[5] The metrics and citations have an impact on overall scholarly output.

Overcoming the limitations of the RPP

Citation data from the personal profiles are not designed to be exported directly to the website or CV and thus, requires manual copy-paste, which is a tedious job; the so-called profile fatigue. The ORCID run by the independent non-profit community-based organization is unique and allows to connect with other systems on the internet.[8,11] The journals and publishers are increasingly requiring an ORCID of authors during the submission of the articles to facilitate interoperability. This interoperability is necessary because publishers and service providers should serve the scientific community and not the other way around. The ORCID also provides a source and a platform for the analysis of academic activities.[20,21] In terms of functionality, openness, and interoperability; most of the commercial for-profit ASNs repositories, like ResearchGate, Academia.edu, and others may not preserve data for the long-term, do not permit users to transport their data for reuse on other sites, nor allow open access repository like libraries to extract data on behalf of authors.[22]

The personal profile has some other limitations, especially due to language and cultural barriers for non-English researchers, as illustrated in a Japanese study.[3] The calculation of metrics and citation varies across different platforms and is found to be a disadvantage for the non-English language publications, which provide less visibility or are non-inclusive, as the algorithm of most ASNs is based on and favors the English language.[5] The Baidu Scholar from Baidu search engine which uses the Chinese language, is an alternate source with >1.2 billion academic resources from academic journals, conference papers, books, to theses, including >1.2 million Chinese (HowNet, CNKI- China National Knowledge Infrastructure, Weipu, Wanfang), and foreign academic sites (Elsevier, Springer, Wiley, NCBI), etc.[23]

Despite limitations, ASNs are valuable for the academic exchange of scientific knowledge. Authors need to consider that the job is not done after the article is published, and thus need to adopt ways to increase the readership and visibility. The utilization of personal profiles on various ASNs is helpful for this purpose. A Canadian study on the presence of four personal profiles: RG, GSP, Academia.edu, and ORCID on ASNs found that 78% had at least one academic profile, popularly RG followed by GSP, and then by ORCID and Academia.edu. Interestingly, many ORCID users' presence on ORCID was merely symbolic without listing their publications. Creating an ORCID profile simply requires registration by email but needs to upload the research work manually.[24] Analysis shows that the use of personal profiles is not common among the researchers from developing countries, e.g., a

study from Yemen found that more than 1/3rd of the researchers were not aware of the ASNs and personal profiling.[25]

The importance of RPP and utilization of ASNs in the digital era

The importance of personal profile and the use of ASNs couldn't be further emphasized in digital technology. A high research activity institute/academia usually has higher RG metrics than those with lower research activity and this is not related to a particular discipline.[26] The RG Score is a tool to measure the research productivity of individual scientists, the institute, and Academia.[27-30] Iran University of Medical Sciences analysis shows that RG score correlates with Google Scholar than that of Scopus.[31] Compared to a personal website/webpage, the academic personal profile on ASNs provides a bigger platform to disseminate and retrieve articles, and conduct further research.[32] The traditional curriculum vitae (CV)/Biodata of listing of publications do not have these benefits. Awareness of various publication metrics is necessary for the unbiased evaluation of the scholarly impact of an individual researcher, and should not be solely based on the journal and the article published in it. Furthermore, there is a need to develop guidelines for the use of different citation indexing databases which link the researcher's profile.

CONCLUSION

The Researcher's personal profile on various Academic Social Network Sites provides direct and verifiable access to the published work. The RPP links the research and publication data available online. The RPP provides an automatic update of author-level metrics for the scholarly impact.

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CONFLICT OF INTEREST

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