Trends in Scholarly Communication

Dr.Babita Jaiswal

Associate Professor
Department of Library and Information Science
Lucknow University

1. Background

Scholarly communication is one of the cornerstones of academia. Its development over recent decades has, for the most part, centered on peer-reviewed journal articles. Traditionally scholarly communication has occurred in the formal literature - in journal articles, conference proceedings, book chapters and books. However, the landscape is changing dramatically. The Open Access movement is providing an alternative to the journal-centric model. The connection that researchers have always felt with others in their field is increasingly manifesting itself in direct collaborations that ignore institutional boundaries. New modes of communicating (blogs, e-mail lists, Twitter and so forth) are flourishing.

2. Concept and Definition

Scholarly communication is frequently defined or depicted as a lifecycle documenting the steps involved in the creation, publication, dissemination and discovery of a piece of scholarly research. Scholarly communication covers a wide spectrum of activity, broadly in two areas – publishing and disseminating the results of research, and providing access to the published material. Roosendaal and Geurts (1997) describe scholarly communication in terms of five main forces and their interplay:

Registration, which allows claims of priority for a scholarly finding.

Certification, which enables the validity of a registered scholarly claim.

- Awareness, which allows scholars to remain aware of new claims and findings.

- Archiving, which preserves the scholarly record over time.

- Rewarding, which rewards actors for their performance, based on metrics derived from the scientific system.

ACRL (2015) defines scholarly communication as "the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use. The system includes both formal means of communication, such as publication in peer-reviewed journals and informal channels such as electronic listservs. Bhaskar (2009) defined scholarly communication as formal and informal connections among scholars and disciplines.

3. Role of Scholarly Communication in Research

Menzel (1958) summarized the seven roles of scholarly communication in research:

1) providing answers to specific questions;

2) keeping scientists updated about new developments in their fields;

3) helping scientists to acquire an understanding of new fields;

4) verifying the reliability of a source of information by additional testimony;

5) providing scientists with a sense of the major trends in their fields;

6) providing scientists with feedback on their own work and its relative importance within the research field; and

7) redirecting or broadening the span of interest and attention of scientists

4. Characteristics of Scholarly Sources

Scholarly sources (also referred to as academic, peer-reviewed, or refereed) are written by experts in a particular field and serve to keep others interested in that field up to date on the most recent research, findings, and news. These resources will provide the most substantial information for writing research and papers. The authority and credibility evident in scholarly sources will contribute a great deal to the overall quality of the papers. Use of scholarly sources is an expected attribute of academic course work.

4.1 Scholarly Article

The following list provides the features of a scholarly article:

- Scholarly articles reflects the systematic and through study of a single topic and often involves original research, experimentation and surveys.

- Scholarly article is written by researcher or expert in a field in order to share the results of their original research or analysis with scholarly community.

- It has a clear structure so indicates that it is a scientific research study. Structure here refers that scholarly articles will usually have an abstract followed by headings/sections indicating the study's purpose, design, results and discussion of findings.

- Scholarly article uses advanced vocabulary and formal and technical language in compare to trade source and popular source having a professional jargon and plain and simple language respectively. Since the author follows the standard language they assume the reader already possesses a basic understanding of the field of study. That is why a higher level of education and knowledge is requires to understand the contents provided in scholarly articles.

- A scholarly article will have an objective point of view and logical, argumentative tone with many citations to published research that support its claims.

- These articles often go through a process known as peer review where the article is reviewed by a group of experts in the field.
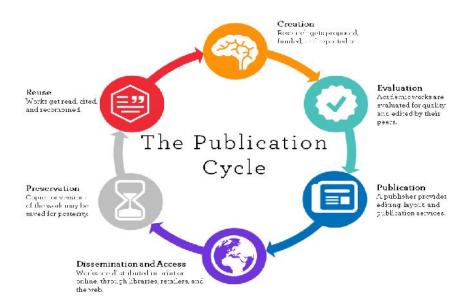
4.2 Scholarly Journal

The following list provides the features of a scholarly journal:

- A scholarly journal is a periodical that contains articles written by experts in a particular field of study. The articles are intended to be read by other experts or students of the field and are usually much more sophisticated and advanced than the articles found in popular magazines.

- Scholarly journal provide a forum for the production and critique of knowledge.

- Scholarly journals may also be called academic journals or peer-reviewed journals. Titles of scholarly journals often contain the word "Journal", "Review", "Bulletin", or "Research". Example: Harvard Business Review

- Many scholarly journals, though by no means all, are sponsored by professional associations, such as the American Chemical Society or the American Psychological Association.

- Many instructors assign research papers or projects that require students to use articles in scholarly journals.

- Scholarly journals generally have a serious look and lacks advertising.

5. Scholarly Communication Process

- Scholarly communication is the process that starts with a research idea that may be acquired from reading the work of other researchers and that certainly builds upon the work of others.

- This is followed by the research work and writing of the manuscript and ends with a formal scientific publication that through peer review is accepted as an "extension of certified knowledge" or, in fact, ends with the scientific knowledge being used in society in, for instance, policy-making or product development.

- All discussions related to the research idea, presentations and seminars, online or offline, between the moment of getting the research idea and when the manuscript is published as a scientific publication, are part of either informal or formal scholarly communication.

- Although there are many aspects to scholarly communication, the formal scientific publication is crucial in every discipline. Kircz (1998) writes that *"the scientific article is the object around which the whole fabric of writing, publishing, and reading is centered."*

- While the scientific article is the repository of knowledge, citations place the article in time and connect it to earlier research.

- There are several actors or stakeholders present at the various stages in this lifecycle, including researchers, funders, peer reviewers, publishers and of course, libraries.

The Publication Cycle

- **Creation** — Research gets proposed, funded, and reported on.
- **Evaluation** — Academic works are evaluated for quality and edited by their peers.
- **Publication** — A publisher provides editing layout and publication services.
- **Dissemination and Access** — Works are distributed in print or online, through libraries, retailers, and the web.
- **Preservation** — Copies or versions of the work may be saved for posterity.
- **Reuse** — Works get read, cited, and recombined.

Source: https://library.uwinnipeg.ca/scholarly-communication/index.html

6. Trends in Scholarly Communication

6.1 Internet

The Internet is not just about finding information; it also encompasses publishing, broadcasting, establishing networks and interactive services. With the introduction of software for hypertext navigation and display in 1993, it became a 'worthwhile tool for scholarly work'. Gradually it enhanced researchers' information handling capabilities offering them unimaginably ever growing Internet based products from hypertexts and hypermedia to the digital library and many more. The quality and credibility of Internet resources has been a concern in scholarly communication. For most scholars, the ways research is conducted, conveyed, and shared are far different today than just a few years ago. Now the technology-driven transformation of scholarship is on the horizon. Internet has affected the scholarly communication in following ways:

- Knowledge sharing is possible via blog postings, announcements posted on institutional or professional web sites, or even via online video conferences/online meetings.

- Most of the sites are enabling researchers to build communities, then use logarithms to push relevant / important new research to the forefront of search results and in the process help people weed through mountains of publications to (1) find important research and (2) discover is one idea has already been researched.

- There is more opportunity for scholars in small, underfunded, institutions to gain access to knowledge as anyone with Internet access can (a) set up an RSS feed and immediately learn of exciting new developments in their field, or (b) easily communicate with leaders in their field regardless of where they are located.

- Scholars are utilizing the Internet to do collaborative research with non-scholars.

- The web has also evolved from more static to user-oriented, interactive, and co-produced, increasingly informal, interactive, and part of a much larger public than earlier. Social and interactive tools that are easy to use are developed so that we can share information, pictures, photos, or ideas.

- E-Publishing and interactive technology such as Wikis, enable scholars to jointly build educational tools.

- Discipline-specific Pre-Print Repositories (arXiv, RePEC), scholarly hub sites (Information for Practice) and open data - often locatable via data hubs - are

providing scholars with one-stop shopping for information specific to an area of research.

- Scholars and institutions of higher education are sharing their knowledge via a multitude of sites from Internet Brand sites to institutional sites that host Open Educational content. Most of these sites also include Creative Commons Licenses, making it easy to learn about your rights to use or repurpose this content.

- Scholars and Librarians are providing people with tools that facilitate searching for quality research materials via tools like Open DOAR, Directory of Open Access Journals, Peel's Prairie Provinces or the Indigenous Studies Portal.

- Scholars of all areas are bringing their research to life with the wider world via the use of Social Media and via open invitations to learn from institutional resources.

- It enables scholars to identify new opportunities to acquire and share knowledge in manners heretofore unavailable to them

6.2 E-Journals

- Many print journals have introduced their digital or online edition, popularly known as electronic journals. Electronic journals have many more functionalities than traditional print journals. E-journals are made available through online platforms of regional journal gateways or open access channel and they get worldwide visibility, readership and attract global authors contributing from other countries. Their print or online subscription in other regions can also be increased due to their increased global visibility and accessibility.

- New journals with backing from scientific networks, special interests groups or scholarly societies are being launched around the world with new methodological approaches. Many of these journals have differentiated their approaches through innovations in delivery mechanism or in peer-reviewing process. Some of the journals have started open review system, inviting authors and reviewers in a common interactive platform for well articulation of arguments and two-way flow of ideas.

- New career promotional principle of "Publish or Perish" (PoP) for scientists and academics, more particularly in the developing countries, forces many journals receiving poor quality manuscripts with errors in methodological, language, structural and theoretical frameworks.

- The scholarly communication services are beginning to include greater support for research metrics. Access to and facility with publication data and associated tools has led to the development of bibliometric and other services which measure in some way the impact of research conducted at the home institution.

- OA, institutional repositories, and Internet opportunities are making publishers look at new business models.

6.3 Library

Academic and other research libraries clearly have a significant role in the scholarly communication process as information providers and access facilitators. Technological innovation in production and dissemination of scholarship, challenges to traditional publishing practices concerning business models and intellectual property management,

and efforts to increase access to scholarship have presented opportunities for libraries to leverage their services and expertise to advocate for and bring about positive change. Many publishers have open access models of their own, and academic libraries are building offices of scholarly communication and taking on formal publishing responsibilities in some cases as well. Many academic libraries today invest in scholarly communication – which typically includes, at a minimum, efforts to support and reform the dissemination of research. These scholarly communications investments are designed to pursue an array of objectives and to serve a variety of roles. Three main fields in which librarians could contribute to scholarly communication are suggested by Thomas(2013).These are : a. OA publication, that is, helping scholars in making their research accessible through OA journals and teaching them about the various models of OA; b. copyrights and agreements, including teaching scholars about fair use and how to copyright their materials, and assisting them with publisher agreements; c. research support, such as helping researchers evaluate the materials that they use and locate research grants, budgets, and support. In addition to training librarians for these tasks, it is also important to develop scholarly communication in academic libraries through a structured program that includes a range of activities. The first and foremost activity is to provide education and information to faculty, students and research scholars and to work closely with faculty members to understand their changing workflows and patterns of scholarly communication.

ACRL(2020) described the ways in which libraries have innovated their services and programs and tapped into their collective expertise to become less of a mere consumer of

scholarly resources and instead a prominent actor and information producer in the scholarly communication lifecycle include:

- adoption of collection development policies and reprioritization of collection development budgets to strategically support open scholarship and positively respond to economic challenges of traditional scholarly publishing

- development of tools or schema to assist in the evaluation of both subscription and open access journals

- assistance to researchers with maximizing the impact of their research by supporting systems of researcher identification and promoting the use of altmetrics

- development and hosting of local publishing platforms

- utilization of the right of fair use, and advocating others to do the same, in order to promote preservation, access, use and discovery of materials in research and instruction

- education of authors on their intellectual property rights and assisting with the interpretation and amendment of publication contracts

- advocacy for open access to scholarship

- facilitation of compliance with funder public access mandates

- development and management of institutional repositories for the purpose of collecting, showcasing and maximizing discovery of institutional research output

Further ACRL (2020) has provided means through which librarians can further engage in and learn about scholarly communication. These are participation in scholarly communication forums and presentations, reading original research etc.

7.Conclusion

Significant and ongoing advances in information technologies which facilitate the preservation, organization, and distribution of information have expanded scholarly communication considerably in recent years. This has facilitated scholarly communication that is easy, rapid, and global and transformed the process from private communication between individuals into a branched, developed, cooperative, and group-oriented form of communication.

References

1. ACRL(2020)Scholarly Communication Toolkit: Scholarly Communication Overview. Retrieved from https:// acrl. libguides.com/scholcomm/toolkit

2. Association of College and Research Libraries (2015). Scholarly communication toolkit. Retrieved from http://acrl.ala.org/scholcomm/

3. Bhaskar, M. (2009). Scholarly communication: A journey from print to web. Library Philosophy and Practice. Retrieved from http://unllib.unl.edu/LPP/mukherjee.pdf

4. Borgman, C. L. (2007). Scholarship in the digital age: information, infrastructure and the internet. Cambridge, MA: MIT Press.

5. Brandon University(2019)Resource Guide for Faculty: Trends in Scholarly Communication. Retrieved from http://libguides.brandonu.ca/c.php?g= 315035&p=2104854

6. Creaser,C.(2011) Scholarly communication and access to research outputs *In* David Baker & Wendy Evans(Eds.) Libraries and Society: role, responsibility and future in an age of change..Oxford: Chandos.

7. Das, A.K. (2015) Scholarly Communication. France: UNESCO. Retrieved from https://unesdoc .unesco.org/ark:/48223/pf0000231938

8. Gabby,L.K. & Shoham,S.(2016) Scholarly communication and academic librarians .Library and Information Science Research.38

9. Holmberg,K.(2016) Altmetrics for Information Professionals: past, present and future. Oxford: Chandos.

10. How to Find Scholarly, Peer-Reviewed Journal Articles. Retrieved from https:// bowvalleycollege .libguides.com/c.php?g=10229&p=52137

11. Kanungo,N.T.(2007) Use of Internet in the scholarly communication of social scientists: a case study of IGNOU. Annals of Library and Information Studies.54.

12. Kircz(1998) *In* Holmberg,K.(2016) Altmetrics for Information Professionals: past, present and future.Oxford: Chandos.

13. Lehman College(2020).Peer-reviewed, Refereed, Scholarly publication. Retrieved from https://libguides .lehman .edu/peer-review/characteristics

14. Menzel, H. (1958). The flow of information among scientists: Problems, opportunities, and research questions. New York, NY: Columbia University of Applied Social Research.

15. OCLC research. Retrieved from https:// www.oclc.org/ research /activities/ scholarcomm .html

16. Roosendaal, H., & Geurts, P. (1997). Forces and functions in scientific communication: An analysis of their interplay. *In* M. Karttunen, K. Holmlund, & E. R. Hilf (Eds.), Cooperative research information systems in physics, Germany: Oldenburg. Retrieved from http://www.physik.uni-oldenburg.de/ conferences /crisp97/ roosendaal.html

17. Santiago Canyon College(n.d.)Scholarly Journals. Retrieved from https://sccollege.edu/Library/Pages/Scholarly-Journals.aspx

18. Scholarly Communication Institute (2015) What do you mean by scholarly communication Retrieved from https:// trianglesci .org /faq / what-do-you-mean-by-scholarly-communications/

19. Schonfeld, R.C. (2015) The Objectives and Organization of Scholarly Communications Functions in Research Libraries. Retrieved from https://scholarly kitchen .sspnet.org/2015/12/01/offices-of-scholarly-communication/

20. The University of Winnipeg(n.d.)Research and Scholarship Support. Retrieved from https://library.uwinnipeg.ca/scholarly-communication /index .html

21. Thomas, W. J. (2013). The structure of scholarly communication within academic libraries. Serials Review, 39. Retrieved from http://dx .doi. org/ 10. 1016/ j.serrev . 2013.07.003

22. Venkadesan,S.(2009) Trends in Scholarly Communication: Challenges and Opportunities to Libraries. Retrieved from https://www.inflibnet. ac.in/caliber2009/ CaliberPDF /48.pdf7

23. Widen,G.(2010) New modes of scholarly communication: implication of Web 2.0 in the context of research dissemination. *In* Dewey, Barbara (Ed.),Transforming Research Libraries for the Global Knowledge Society. (Eds.) Oxford: Chandos.