



Evidence Summary

Early Career Researchers Demand Full-text and Rely on Google to Find Scholarly Sources

A Review of:

Nicholas, D., Boukacem-Zeghmouri, C., Rodríguez-Bravo, B., Xu, J., Watkinson, A., Abrizah, A., Herman, E., & Świgoń, M. (2017). Where and how early career researchers find scholarly information. *Learned Publishing*, 30(1), 19-29. <http://dx.doi.org/10.1002/leap.1087>

Reviewed by:

Richard Hayman
Associate Professor & Digital Initiatives Librarian
Mount Royal University
Calgary, Alberta, Canada
Email: rhayman@mtroyal.ca

Received: 5 May 2017

Accepted: 5 December 2017

© 2017 Hayman. This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Abstract

Objective – To examine the attitudes and information behaviours of early career researchers (ECRs) when locating scholarly information.

Design – Qualitative longitudinal study.

Setting – Research participants from the United Kingdom, United States of America, China, France, Malaysia, Poland, and Spain.

Subjects – A total 116 participants from various disciplines, aged 35 and younger, who were holding or had previously held a research position, but not in a tenured position. All participants held a doctorate or were in the process of earning one.

Methods – Using structured interviews of 60-90 minutes, researchers asked 60 questions of each participant via face-to-face, Skype, or telephone interviews. The interview format and questions were formed via focus groups.

Main Results – As part of a longitudinal project, results reported are limited to the first year of the study, and focused on three primary questions identified by the authors: where do ECRs find scholarly information, whether they use their smartphones to locate and read scholarly information, and what social media do they use to find scholarly information. Researchers describe how ECRs themselves interpreted the phrase *scholarly information* to primarily mean journal articles, while the researchers themselves had a much expanded definition to include professional

and “scholarly contacts, ideas, and data” (p. 22).

This research shows that Google and Google Scholar are widely used by ECRs for locating scholarly information regardless of discipline, language, or geography. Their analysis by country points to currency and the combined breadth-and-depth search experience that Google provides as prime reasons for the popularity of Google and Google Scholar. Of particular interest is the popularity and use of Google Scholar in China, where it is officially blocked but accessed by ECRs via proxy services. Other general indexes, such as Web of Science and Scopus, are also popular but not universally used by ECRs, and regional differences again point to pros and cons of these services. Some specialized services are emphasized, including regional tools such as the China National Knowledge Infrastructure, as well as certain broad disciplinary resources, such as PubMed for its coverage of sciences and biomedical information.

Researchers report that ECRs participating in this study were less concerned about how they gained access to full-text scholarly information, only that they could access full-text sources. In particular, ECRs do not take much notice of libraries and their platforms, seemingly unaware of the steps libraries take to acquire and ensure access to scholarly information, while viewing physical libraries themselves primarily as study spaces for undergraduate students and not places for the ECR to visit or work. While ECRs occasionally acknowledge library portals and login interfaces, researchers found that these participants mostly ignored these, and that they found discovery services to be confusing or difficult.

Concerning social media use, participants identified 11 different platforms used but only ResearchGate was mentioned and used by participants from all seven countries represented. Social media tends to be used directly for keeping track of research trends and opinions and also the work specific researchers are publishing, and indirectly when referred to sites such as ResearchGate to find full-text of a specific article. Facebook,

Twitter, and LinkedIn are used occasionally or moderately, but not universally. Researchers highlight regional differences of social media use in China, where ECRs are more likely to connect with other researchers and receive notifications when those researchers publish.

The study reports limited information ECRs' use of smartphones for information seeking. About half of ECR participants reported use of their smartphone for discovering scholarly sources. The advantage smartphones provide includes near-ubiquitous Internet access and therefore the ability to access scholarly materials on the go, though ECRs are less likely to download or read full-text articles via their smartphones. The rate of adoption of smartphone use for scholarly materials varies by country.

Conclusion – Early career researchers access scholarly information in a wide variety of ways, with Google and Google Scholar as the preferred starting location, and with social media also proving useful. Ease-of-use and full-text availability are paramount concerns; the spread of open access materials helps fuel the availability of materials, and Google makes these easy to find. Though physical libraries are perceived to be of limited use, the digital access they provide to full-text scholarly sources is still vital even if ECRs do not make the connection between having that important access and the fact that libraries act as buyers and providers of access

Commentary

This early report on a broad longitudinal study provides some insights to the information behaviours of early career researchers. In particular, it confirms results from other studies showing that ECR behaviours mirror recognized information seeking behaviours among researchers who use Google/Google Scholar, PubMed, ResearchGate, and similar tools, as well as regular updates from ones' professional and social networks, for finding relevant and timely scholarly information (Pontis, Blandford, Greifeneder, Attalla, & Neal, 2015).

This study relied on convenience and snowball recruitment, and uses small sample sizes, both of which are acceptable within the scope of qualitative research. The intentional selection of most participants from the sciences (two-thirds) over the social sciences (one-third), at the behest of the funding agency, and seemingly excluding the arts, humanities, or business disciplinary categories altogether, and the reliance on different types of materials these disciplines have (e.g., monographs vs. journals) presents challenges for drawing generalizable conclusions about ECRs. The researchers do acknowledge that small participant numbers limit the generalizability of their findings. Despite their assurances that such “limitations were compensated for by using personal interview techniques and asking in-depth questions” (p. 28), this kind of qualitative research cannot be generalized beyond the immediate participant pool. Recruitment occurred from within publisher lists and society memberships loosely connected to the study’s sponsoring body, in combination with the skewed disciplinary representation addressed above, lends further weight to the criticism that that these findings cannot be treated as representative of ECR behaviours, and raises the possibility of conflict of interest. For findings found to be universal across all ECRs who participated, the use of multiple geographies with multiple participants from each location mitigates to some degree these shortcomings, and may serve to help reduce some bias introduced during recruitment (Glynn, 2006).

Though they are not all plainly stated, this study points to a number of implications for information practice in academic libraries. The

most obvious is the need for university libraries and liaison librarians to improve ECRs’ understanding of the connections between the library purchasing subscriptions and full-text access, and ECRs’ demand for such access. This research study may further confuse already complex categorizations by making distinctions between general databases (e.g., Web of Science and Scopus), specialized databases (e.g., ScienceDirect, SpringerLink), and “libraries and their platforms”, despite the fact that in most cases these all fundamentally depend on subscription-driven resources purchased by the library. Since ECRs and other researchers are dedicated Google users for seeking scholarly information, libraries and their vendors must be prepared to work toward improving their resources and services to mimic the Google/Google Scholar experience as much as possible, or to better integrate those Google services into their offerings.

References

- Glynn, L. (2006). A critical appraisal tool for library and information research. *Library Hi Tech*, 24(3), 387-399.
<http://dx.doi.org/10.1108/07378830610692154>
- Pontis, S., Blandford, A., Greifeneder, E., Attalla, H., & Neal, D. (2015). Keeping up to date: An academic researcher's information journey. *Journal of the Association for Information Science and Technology*, 68(1), 22-35.
<http://dx.doi.org/10.1002/asi.23623>