Evidence Based Library and Information Practice

A Mapping Review of Poster Presentation Publications Across Time and Academic Disciplines

A Review of:
Rowe, N. (2017). Tracing the 'grey literature' of poster presentations: A mapping review. *Health Information & Libraries Journal, 34*(2), 106-124.

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Abstract

Objective – To map the development and use of poster presentations in order to determine disciplines in which they are particularly prolific and how their popularity or presence may have changed over time. This will potentially assist health and interdisciplinary librarians asked to search for poster presentations in systematic reviews.

Design – Informetric mapping review.

Setting – An unnamed UK University Library search facility which processes 249 international databases and research publications. Databases and publications range across 37 research disciplines, including literature, medicine, and engineering.

Subjects – Published literature connected to poster presentations – the authors state that this could be poster presentations themselves, abstracts, title listings in conference proceedings, or any variety of materials. They also state that over 99% of the results of this review were title citations or abstracts of conference poster presentations.

Methods – An informetric mapping review was conducted via a UK University Library search facility by searching for the term "poster presentation" in 249 databases spanning 37 research areas. An index of

databases used is provided as an appendix to the article. Results were not connected by the search facility to an individual database. Search results were categorized by discipline and decade of publication. Scholarly and peer-reviewed search limiters were used to obtain an idea of the themes and contributions to what could be considered core literature, and the search was also run in Google Scholar to provide a comparator. Duplications across databases were removed by the search service, although several results appeared both in aggregate (for example, conference proceedings encompassing all poster presentations) and individual form. Review of results took an informetrics approach, concerned with quantitative analysis (number of publications over time, number of publications in specific areas or by certain authors, etc.) of production, publication, and use of information, and not with its origins or quality.

Main Results – Even with limiters for peer reviewed or scholarly sources applied, over 99% of returns were abstract or title citations for conference poster presentations – sources which by themselves may not meet the requirements for being scholarly information. From 1937-1969, results only uncovered references to poster use in an educational context. From 1970-1979, the researchers found that poster presentations became a common conference feature, although a less prestigious one than papers. 1980-1989 reiterated the commonality of academic posters, and saw publication of works to advise poster preparation and running poster sessions. During the years 1990-1999, health related disciplines became the main users of posters as an academic medium with 68% of search returns being in health care disciplines. The prominence of posters in health and medicine increased over time. From 2000-2009, search returns in this study show an increase of 360% from those located in 1990-1999. This could indicate an increase in poster sessions, an increase in search accuracy and online availability of material, or both. Health care and medical disciplines have demonstrated the most prominent use of poster sessions since

the 1990s, although all disciplines have visible poster presentation activity.

Conclusions – The author concludes that consistently increasing levels of return for poster abstracts indicate that poster presentations are a fulfilling and popular activity that will continue to be practiced by academics worldwide, but that literature in this review raises issues with the effectiveness of posters as ways to disseminate and discuss research. Locating and acquiring conference poster content, not just abstracts or titles, has been a recognized issue in libraries for many years. The authors conclude that the increasing number of poster presentations over time makes it more urgent that we determine what the personal and objective needs of poster users are and ensure that we are meeting them.

Commentary

Although there is a substantial body of literature on conducting poster sessions and creating poster presentations, Rowe's work provides an insightful overview of the proliferation of the poster presentation in academic literature over time. Observations regarding the growth of poster sessions as a form of academic dissemination, and the lack of significant change observed across the author's search returns in poster presentations as a medium, should prove interesting for librarians and conference organizers.

This study does not achieve validity according to Glynn's EBL Critical Appraisal Checklist (2006), receiving 70% when overall validity is calculated with relevant sections (data collection, study design, results). An appraisal tool more targeted to informetrics mapping, if it exists, might produce a more nuanced understanding of the study's validity. A lack of clarity regarding specific research questions and variables of interest damage the study's face validity, and the author does not strongly connect study results to their initial research concerns or objectives. The study also does not screen returned search results for relevance or validity, and the use of a single search string across all databases would likely achieve uneven returns and/or omit relevant results.

The author does note alternate explanations or possible confounding variables for the drastic increase in returns during 2000-2009. The author also acknowledges that study replication could be hindered by changes to database algorithms or indexed journals, but indicates that their general observed patterns in the numbers, discipline areas, and content of returns should remain consistent. This seems to be supported by consistent increase patterns viewed between the author's review of selected databases and their comparator review of Google Scholar.

Even if they do not completely address stated study objectives, authorial conclusions follow logically from study results. In particular, the observation that over 99% of returns consisted of poster titles or abstracts, which by themselves do not reliably convey the full breadth and depth of information necessary from a scholarly source. In light of this result, the author's suggestions for further research into the needs and motivations of poster users of all kinds seems a necessary next step to determine how libraries and academic communities may better provide access to the information contained in poster presentations.

References

Glynn, L. (2006). A critical appraisal tool for library and information research. *Library Hi Tech*, *24*(3), 387-399. doi:10.1108/07378830610692154