

## Tech Showdown – Citation Mapping Tools Special Issue

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Tech Showdown is a regular feature of JoHILA. Novel products, software, and technologies will be compared against each other to determine who is the winner, based on available features, ease of use, and price. If you have an idea for Tech Showdown or would like to see a comparison of two particular technologies, please email Cass.

New digital tools for literature searching seem to emerge almost every week, making it a challenging task for librarians to stay updated. Consider how overwhelming it must be for our patrons, who juggle clinical responsibilities, research, and professional development alongside this constant proliferation of tools. How can we stay on top of these tools? How can we identify and meet user need? How can we appropriately recommend digital tools?

Considering these questions, Monash Health librarians initiated an exploration of various tools during collaborative learning sessions. To ensure that the knowledge and skills acquired in these sessions could benefit library users, a plan to evaluate and rate these tools was introduced. The initial category selected for assessment was citation mapping tools.

Citation mapping tools, also known as citation network analysis tools, are software or platforms designed to visualise and analyse the relationships between academic articles and their citations. These tools assist researchers in identifying influential works and explore the connections between articles.

The tools selected for rating were: Inciteful, Litmaps, Open Knowledge Maps, Research Rabbit, Connected Papers, Local Citation Network, VOSviewer, Citation Chaser, and CiteSpace. Citation Gecko and Histcite were not included in the evaluation as they are no longer supported by the developers.

A rating out of 10 was developed to provide library users with a quick overview of the benefit of the tools. Factors included in the rating were:

- **Cost:** Cost is a barrier to researchers and the optimal tool would be free to use.
  - 0 points if the tool had a price to use all features.
  - 1 point if the tool had a free account option, but limited features.
  - 2 points if the tool was completely free to use.

- **Cloud:** Downloading and installing programs onto organisation devices often requires IT approval, which can be slow to gain.
  - 0 points if the tool requires software to be downloaded.
  - 1 point if the tool is completely cloud-based.
- **Source:** While it was beyond the scope of the assessment to evaluate the databases of citations within the tools, in the interest of transparency, the optimal tool will identify what databases it uses.
  - 0 points if the tool does not identify the source of its citations.
  - 1 point if the tool does identify the source of its citations.
- **Full Text:** The optimal tool will have inbuilt workflows for accessing full-text PDFs of the citations. This can include links to citation in PubMed or the DOI.
  - 0 points if there is no option for accessing full-text.
  - 1 point if there is an option for accessing full-text.
- **Help information and guidance:** The tool should offer on-demand, clear, and plain language supporting documentation or help desk assistance.
  - 0 points for no help information.
  - 1 point for limited or confusing help information
  - 2 points for extensive help information, or a contact for further assistance.
- **Interface:** The tool should have an easy-to-use and uncluttered interface, with key features that are easy to locate.
  - 0 point for a tool that has a confusing and cluttered interface that is difficult to use.
  - 1 point for a tool that requires some training to use.
  - 2 points for an interface that is easy to navigate and does not require extensive knowledge to use.
- **Integrations:** An ideal tool will integrate with reference management software, such as EndNote, to ensure that the user can save and manage citations. It was beyond the scope of this assessment to evaluate the quality of such integrations.
  - 0 points if the tool does not offer any integrations.
  - 1 point if the tool does offer integrations.

Using this rating, we determined that Inciteful was the most useful tool, having a rating of 10 out of 10.

Following this assessment, a one-page matrix was developed that listed key components of the rating that were identified as useful to library users, as well as a “best for” field. It was theorised that library users will have four main questions regarding citation mapping tools that we hoped the matrix would anticipate and answer, namely:

- "What are citation mapping tools?"
- "Can you help me find more articles/generate visualisations/generate search concepts/determine article impact?"
- "I have heard of this particular tool; can you tell me more about it."
- "I have heard of this particular tool; is it good?"

This matrix is now available within Monash Health Library's [literature searching guide](#) and a webinar regarding citation mapping tools, highlighting the matrix, was recently presented to Monash Health employees. The matrix has the Creative Commons BY-NC-ND license, allowing re-users to copy and distribute the material in any medium or format in unadapted form only, for non-commercial purposes only, and only so long as attribution is given to Monash Health Library. More matrices and webinars are planned for next year.

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