Bibliometrix Package R

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What is Bibliometric Analysis?

Table 1
Comparison of major review methods.

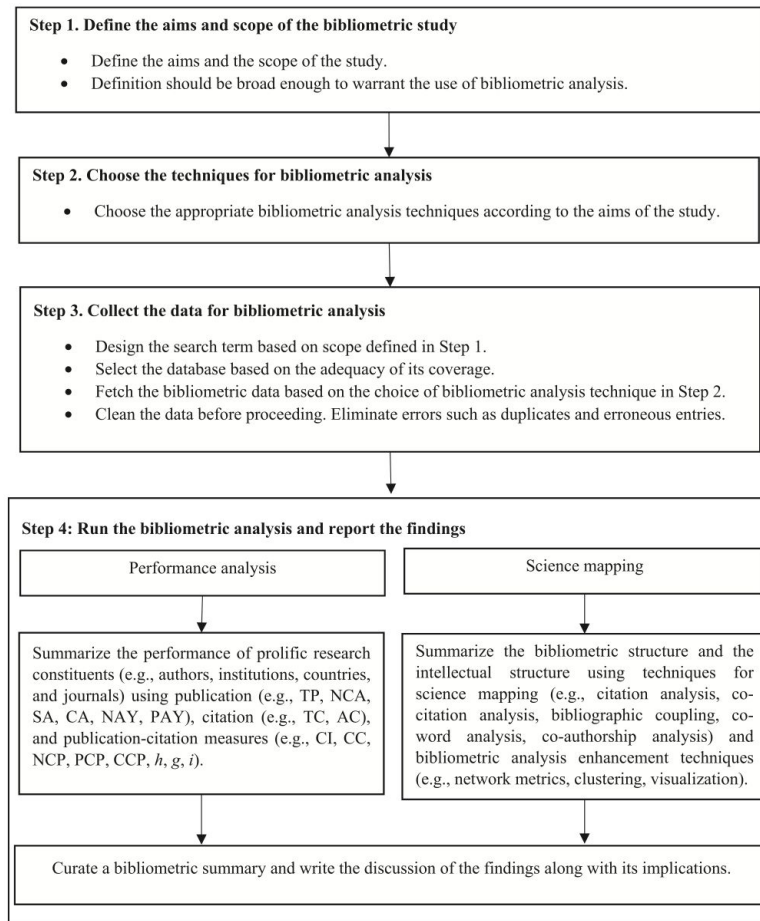| Review type	Goal	When to use	When not to use	Scope	Dataset	Analysis
Bibliometric analysis	• Summarizes large quantities of bibliometric data to present the state of the intellectual structure and emerging trends of a research topic or field.	• When the scope of review is broad. • When the dataset is too large for manual review.	• When the scope of review is specific. • When the dataset is small and manageable enough that its content can be manually reviewed.	• Broad	• Large	• Quantitative (evaluation and interpretation) • Qualitative (interpretation only)
Meta-analysis	• Summarizes the empirical evidence of relationship between variables while uncovering relationships not studied in existing studies.	• When the focus of review is to summarize results rather than to engage with content, which may be broad or specific. • When studies in the field are homogenous. • When the number of homogeneous studies available is sufficiently high. • When the number of homogeneous studies remaining after removing low quality studies is sufficiently high.	• When studies in the field are heterogeneous. • When the number of homogenous studies is relatively low. • When the number of high-quality homogeneous studies is relatively low.	• Broad • Specific	• Large • Small but adequate	• Quantitative (evaluation and interpretation)
Systematic literature review	• Summarizes and synthesizes the findings of existing literature on a research topic or field.	• When the scope of review is specific. • When the dataset is small and manageable enough that its content can be manually reviewed.	• When the scope of review is broad. • When the dataset is too large for manual review.	• Specific	• Small	• Qualitative (evaluation and interpretation)

Bibliometric Tools
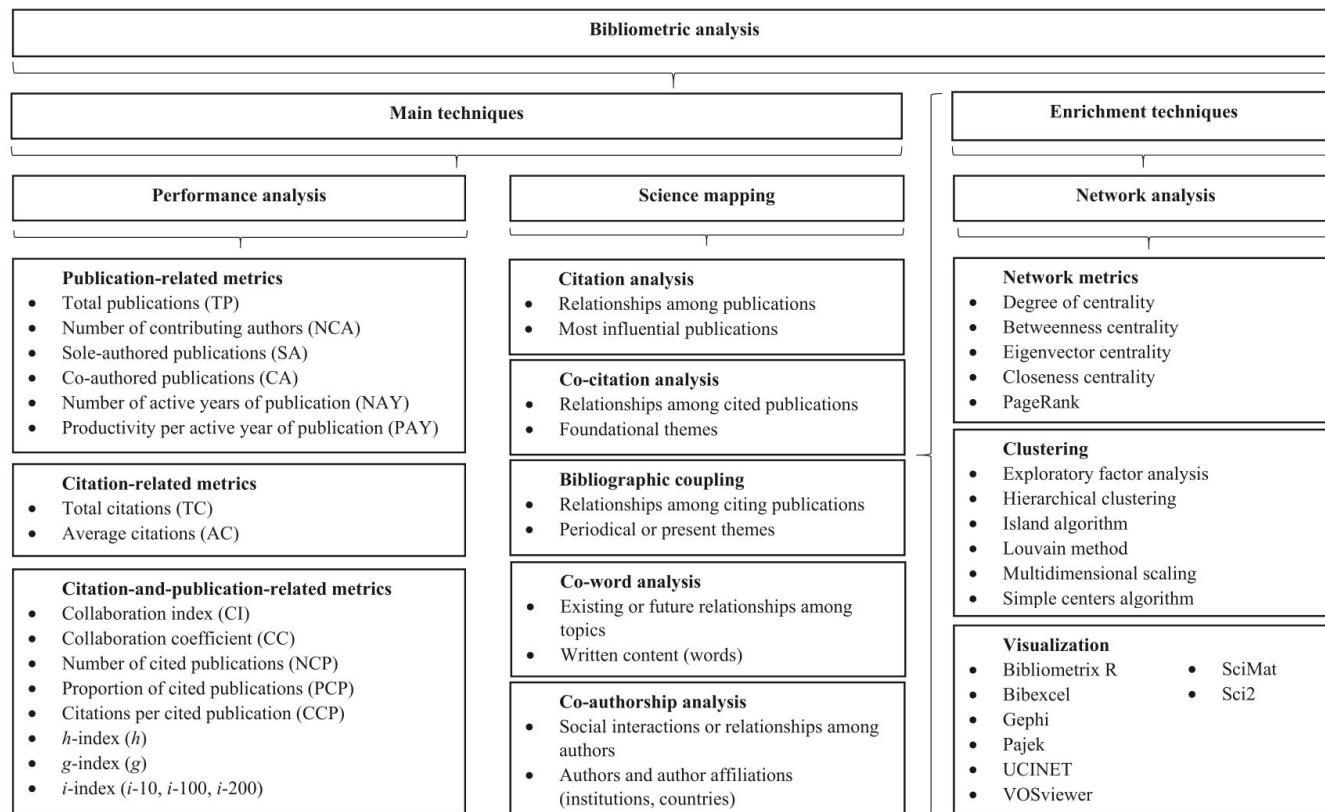
Fig. 2. The bibliometric analysis toolbox.

Framework for conducting Bibliometric Analysis

Maybe you would like to add PRISMA into the framework as well…

WoS is a bit better such that the cited references are more harmonized than Scopus.

Step 1. Define the aims and scope of the bibliometric study

- Define the aims and the scope of the study.
- Definition should be broad enough to warrant the use of bibliometric analysis.

Step 2. Choose the techniques for bibliometric analysis

- Choose the appropriate bibliometric analysis techniques according to the aims of the study.

Step 3. Collect the data for bibliometric analysis

- Design the search term based on scope defined in Step 1.
- Select the database based on the adequacy of its coverage.
- Fetch the bibliometric data based on the choice of bibliometric analysis technique in Step 2.
- Clean the data before proceeding. Eliminate errors such as duplicates and erroneous entries.

Step 4: Run the bibliometric analysis and report the findings

Performance analysis	Science mapping
Summarize the performance of prolific research constituents (e.g., authors, institutions, countries, and journals) using publication (e.g., TP, NCA, SA, CA, NAY, PAY), citation (e.g., TC, AC), and publication-citation measures (e.g., CI, CC, NCP, PCP, CCP, h, g, i).	Summarize the bibliometric structure and the intellectual structure using techniques for science mapping (e.g., citation analysis, co-citation analysis, bibliographic coupling, co-word analysis, co-authorship analysis) and bibliometric analysis enhancement techniques (e.g., network metrics, clustering, visualization).

Curate a bibliometric summary and write the discussion of the findings along with its implications.

Bibliometrix.org → Bibliometrix Package Site

install.packages("bibliometrix", dependencies = TRUE)

[A Brief Introduction to Bibliometrix](#)

Choose a topic you like and query that from [WoS](#), follow the same steps/analyses from the intro page, and then share what you've found! You can also try other analyses too, perhaps the [original methods paper](#) can give you some inspiration as well.

Also try out [biblioshiny()](#)!

References

https://doi.org/10.1016/j.jbusres.2021.04.070

https://doi.org/10.1016/j.joi.2017.08.007