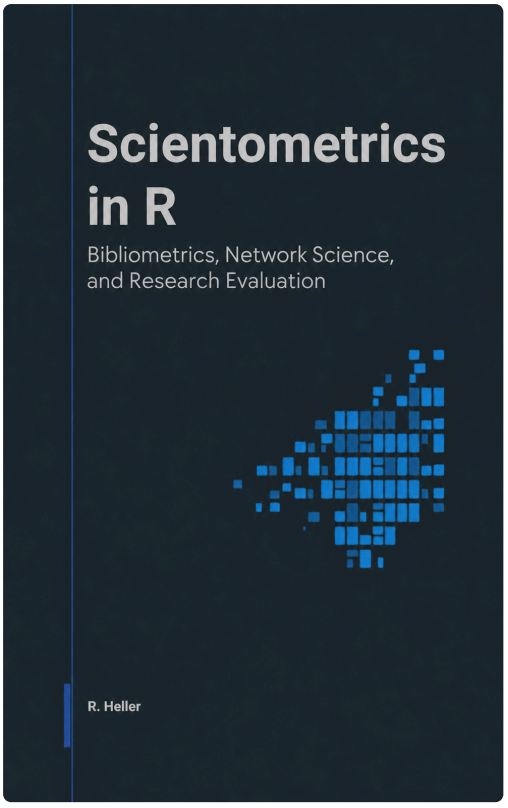
Welcome!

R. Heller · Date: 2026-05-11 · Last changed: 2026-11-10



Welcome to **"Scientometrics in R: Bibliometrics, Network Science, and Research Evaluation"**.

This is a working guide to scientometrics in R for researchers, librarians, research administrators, and data scientists who want to study scholarly communication quantitatively. It walks the full pipeline — from pulling records out of OpenAlex, Crossref, and PubMed, through computing the standard indicators (h-index, MNCS, journal metrics), to building co-authorship and co-citation networks, applying text and topic models to scientific corpora, and packaging the results into reproducible reports and dashboards.

The book assumes a working knowledge of R at the tidyverse level and basic statistics. No prior scientometric experience is needed — the early chapters lay the conceptual and ethical foundations, and each later chapter starts with a concrete research question and ends with a callout on responsible use grounded in the Leiden Manifesto and DORA.

All examples run against free, open data; no Web of Science or Scopus subscription is required. Small synthetic sample datasets are stored under `data/` in the source repository; everything else is fetched live from public APIs. The book does *not* cover proprietary platforms (InCites, SciVal), manual screening workflows for systematic reviews, or qualitative sociology of science.

Open Source Repository

This book has been built using **{rmarkdown}** and **{bookdown}**. Formulas are rendered using MathJax. All source files are available on **GitHub** at https://github.com/CTTIR/scientometrics-in-r. You are free to fork, share, and reuse contents under the project's CC BY 4.0 license.

How To Use The Guide

- **Linear or lookup.** Read front to back, or use the Find Your Method navigator to jump to the chapter that answers your question.
- **Code.** Reusable helper functions live in `R/` in the source repository, and chapters load them with `source()`; every chapter shows the full chunk it depends on.
- **Downloads.** The side panel lists whole-book and chapter files that are available in the current build.
- **Corrections.** Please file an issue at https://github.com/CTTIR/scientometrics-in-r/issues.

Contributing

Pull requests, corrections, and additions are welcome. See `CONTRIBUTING.md` for the workflow.

Citing this Guide

The suggested citation is:

Heller, R. (2026). *Scientometrics in R: Bibliometrics, Network Science, and Research Evaluation* (Version 0.1.0). Self-published via GitHub Pages. https://cttir.github.io/scientometrics-in-r/.

Download the reference as BibTeX or .ris.