Bibliometrix: An R-tool for comprehensive science mapping analysis

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Agenda

- Bibliometrics, Science and State of Art
- Bibliometrix R-tool
- RMarkdown/Script example
- Biblioshiny()

Bibliometrics, Science and State of Art

- Area of **information science** that applies **statistical and mathematical methods** to analyse and construct indicators on the **dynamics and evolution of scientific** and technological information.

Bibliometrix

- The package (R) provides routines for **importing bibliographic data** from databases, performing **bibliometric analysis** and building data matrices for:
    - *co-citation*
    - *coupling*
    - *analysis of scientific collaboration*
    - *keyword analysis.*

http://bibliometrix.org/

Bibliometrix

Published in the
Journal of Informetrics

(JCR: 3.879)

Aria, M. & Cuccurullo, C. (2017) bibliometrix: An R-tool for comprehensive science mapping analysis, Journal of Informetrics, 11(4), pp 959-975, Elsevier.

Contents lists available at ScienceDirect

Journal of Informetrics

journal homepage: www.elsevier.com/locate/joi

Regular article

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ARTICLE INFO

Article history:
Received 14 February 2017
Received in revised form 27 August 2017
Accepted 27 August 2017
Available online 12 September 2017

Keywords:
Bibliometrics
Science mapping
Workflow
Co-citation
Bibliographic coupling
R package

ABSTRACT

The use of bibliometrics is gradually extending to all disciplines. It is particularly suitable for science mapping at a time when the emphasis on empirical contributions is producing voluminous, fragmented, and controversial research streams. Science mapping is complex and unwieldly because it is multi-step and frequently requires numerous and diverse software tools, which are not all necessarily freeware. Although automated workflows that integrate these software tools into an organized data flow are emerging, in this paper we propose a unique open-source tool, designed by the authors, called *bibliometrix*, for performing comprehensive science mapping analysis. *bibliometrix* supports a recommended workflow to perform bibliometric analyses. As it is programmed in R, the proposed tool is flexible and can be rapidly upgraded and integrated with other statistical R-packages. It is therefore useful in a constantly changing science such as bibliometrics.

Bibliometrix

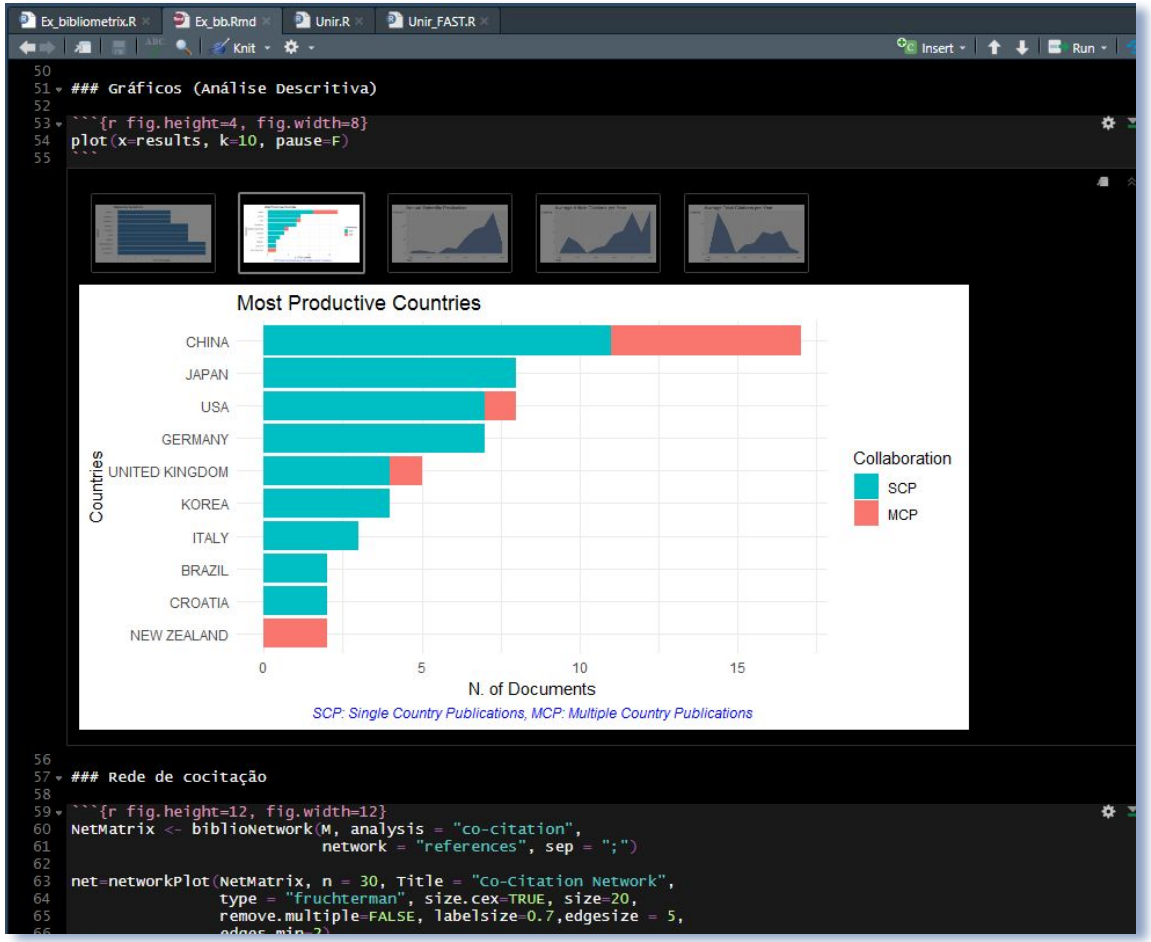
http://bibliometrix.org/

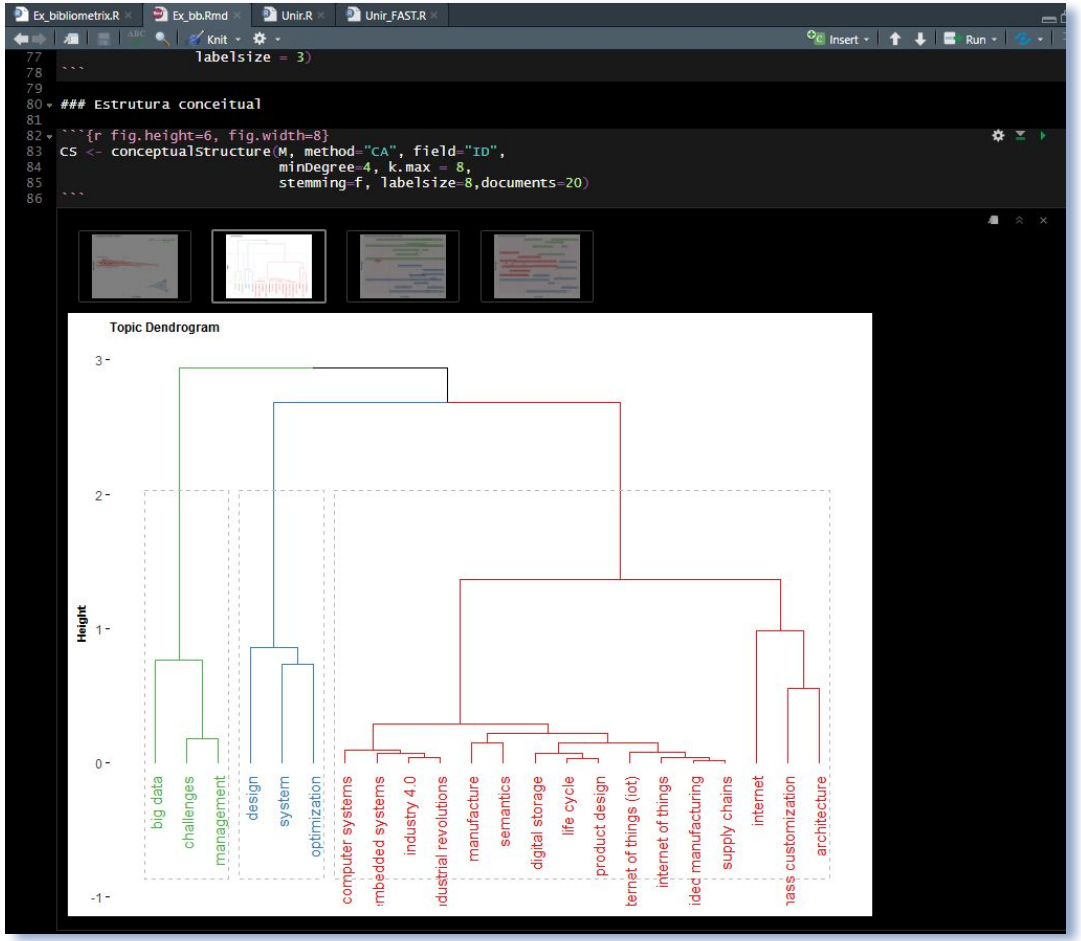
An example in R Markdown/Script

- GitHub:

https://github.com/icaroagostino/bb

An example in R Markdown/Script



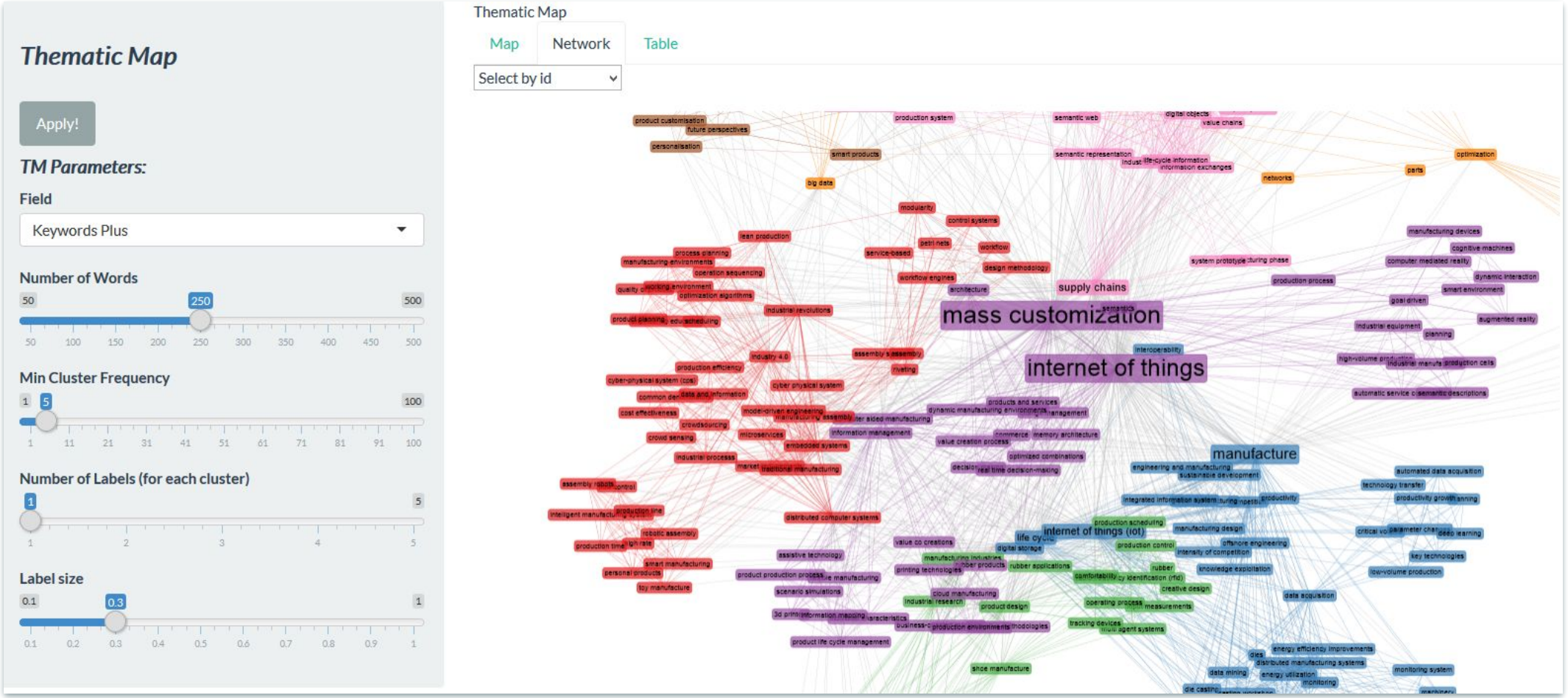


Biblioshiny()

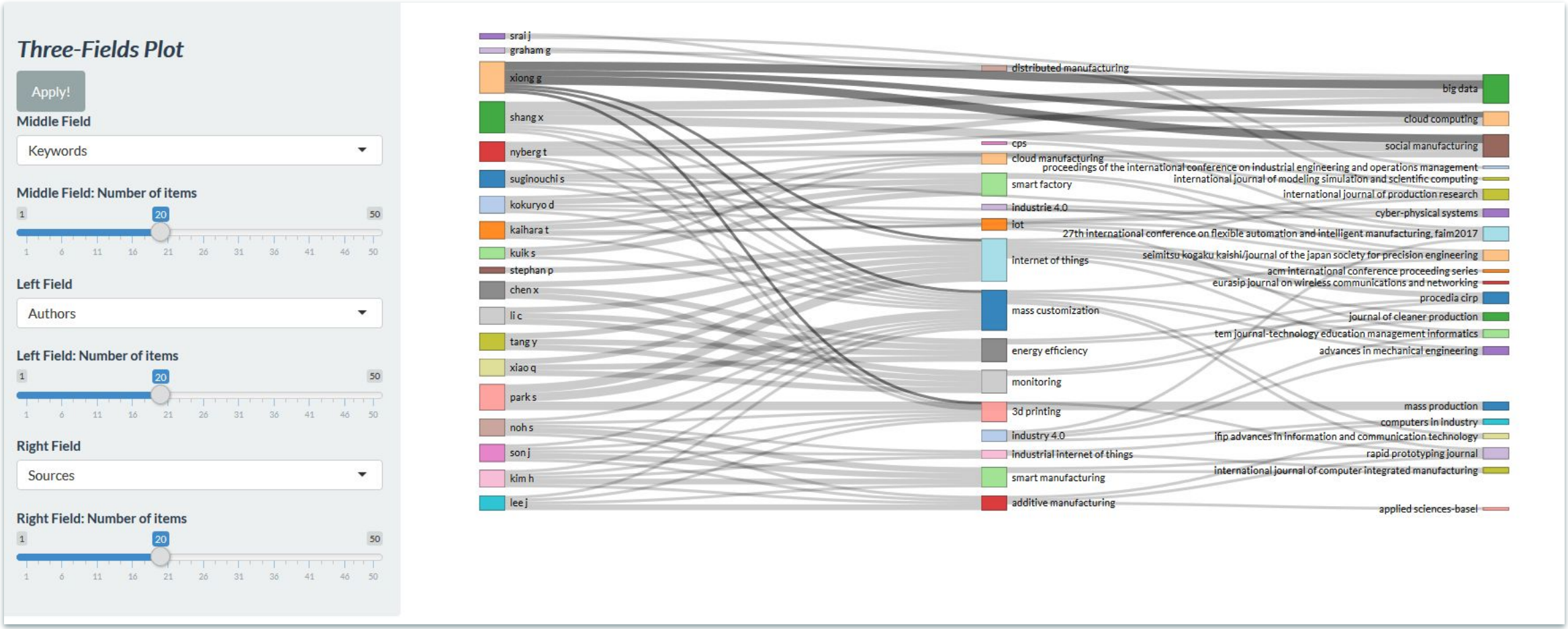
- With the **Bibliometrix** package installed write and run:

```
> library(bibliometrix)
> biblioshiny()
```

Biblioshiny()



Biblioshiny()



Biblioshiny()

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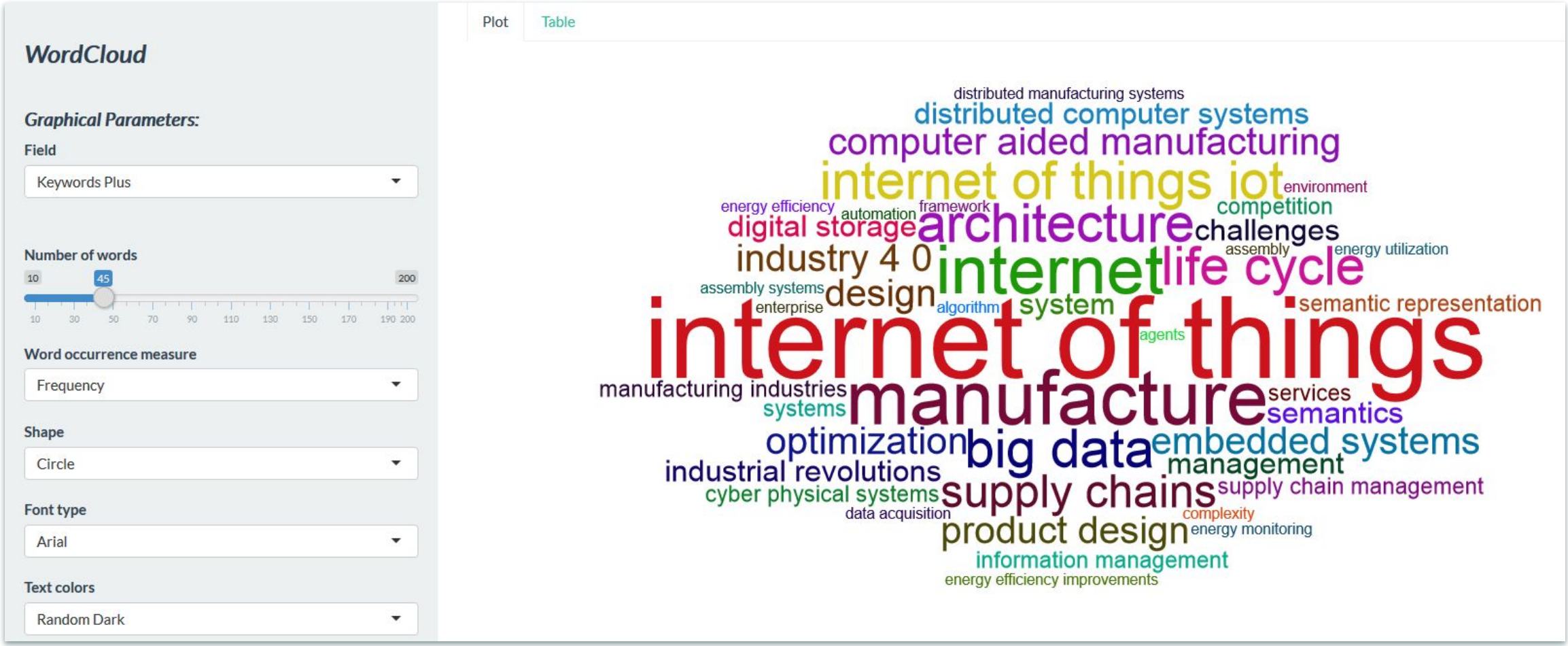

Links, materials and references

- Aria, M. & Cuccurullo, C. (2017) bibliometrix: An R-tool for comprehensive science mapping analysis, *Journal of Informetrics*.
- Oficial website: http://bibliometrix.org/
- CRAN: https://cran.r-project.org/web/packages/bibliometrix/
- Biblioshiny tutorial: http://bibliometrix.org/biblioshiny/
- Files: https://github.com/icaroagostino/bb

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