Package 'tosr'

July 22, 2025

Title Create the Tree of Science from WoS and Scopus

Version 0.1.5

Description The goal of 'tosr' is to create the Tree of Science from Web of Science (WoS) and Scopus data. It can read files from both sources at the same time. More information can be found in Valencia-Hernández (2020) <https://revistas.unal.edu.co/index.php/ingeinv/article/view/77718>.

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URL https://github.com/coreofscience/tosr, https://coreofscience.github.io/tosr/

BugReports https://github.com/coreofscience/tosr/issues

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

Imports bibliometrix, igraph, dplyr, rebus, magrittr, stringr, tidyr, stats, rlang, tibble

Depends R (>= 3.5.0)

Suggests rmarkdown, knitr, testthat (>= 3.0.0)

Config/testthat/edition 3

VignetteBuilder knitr

NeedsCompilation no

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`my_tosr_load` *A list with data to create ToS*

Description

A list of three dataset that contain:

1. Graph: this is a citation network build with the references
2. df: A tibble with the main information of our initial dataset with some more ids
3. nodes: A tibble with the complete information of each node from graph dataset (1).

Usage

```
my_tosr_load
```

Format

A list with two datasets from a search in Scopus and Web of Knowledge

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`tosR` *tosR process*

Description

This function load de scopus and web of science files and generate the graph (relations betwen the cited references), the bibliometrix dataframe object, the tree of science for the subfields, the tree of science for all the cited references,

Usage

```
tosR(...)
```

Arguments

...	Names of scopus and web of science files

Value

list with graph, data frame of citations, subfields and Tree of science

Author(s)

Sebastian Robledo

Examples

```
## Not run:
my_tosr <- tosR("co-citation_209.txt",
                "co-citation_380.bib")

## End(Not run)
```

---

tosr_load *Load Web of Science and Scopus files*

Description

Loads files from Web of Science (txt) and from Scopus (bib) to create a citation graph

Usage

```
tosr_load(...)
```

Arguments

...	Web of Science or Scopus files

Value

List with the following fields: 'df','g','original_df' and 'extensions'. 'df': bibliometrix dataframe. 'g' : Graph from the cited references. 'nodes': dataframe with the nodes atributes of the graph, 'original_df': dataframe from the original data, and 'extensions' : Type of files (.bib or .txt) loaded.

Author(s)

Sebastian Robledo

Examples

```
## Not run:
my_tosr_load <- tosr_load("co-citation_209.txt",
                          "co-citation_380.bib")

## End(Not run)
```

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tosSAP *SAP algorithm for tree of science*

Description

Compute tree of science using SAP algorithm. see: https://revistas.unal.edu.co/index.php/ingeinv/article/view/77718/0

Arguments

graph	A graph object with bibliometrix data obtained from function tosr_load
df	Bibliometrix data frame obtained from function tosr_load
nodes	Dataframe with nodes atributes obtained from function tosr_load

Value

Dataframe with tree of science

Author(s)

Sebastian Robledo

Examples

```
## Not run:
my_tos <- tosSAP(my_tos_load$graph, my_tos_load$df, my_tos_load$nodes)

## End(Not run)
```

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