Extract Document Source Co-Citation Network (Core Only)

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Description

Extracts the journal co-citation network from an ISI database.

Each journal which is the source of a document in the input database is represented by a node. An edge is drawn between the nodes for two journals if and only if they are cited by a common document in your dataset.

Core Journal vs. Non-Core Journal

There is a distinction drawn between journals which are the source of a document contained in your dataset and journals in general. A journal which is the source of a document in your dataset is called a "core journal".

The output network of this algorithm will contain nodes representing only core journals. For an algorithm that will represent even non-core journals, see Extract Document Source Co-Citation Network (Core and References).

Analyses

The output network will include the following summaries of your dataset:

- Node (Journal)
  - A prettified label identifying this journal.
- Edge (Co-Citation)
  - The number of documents in your dataset which cited documents from both of these journals.
    - This figure is also given with three common normalizations: Jaccard, cosine, and Dice.
  - Publication year of the earliest co-citing document.
  - Publication year of the most recent co-citing document.

Usage Hints

Load an ISI file into the tool, then create a database from it using the ISI database loader.

It is strongly recommended that the database be cleaned before extracting any co-citation networks from it.

For a quick analysis of a small dataset you may wish to merge together author entities with identical names. For a scientifically sound analysis of a larger dataset, you can find author entity merging suggestions (or manually set your own merging orders from scratch) and perform the merge.

Then, you will probably want to merge together journal entities according to recognized variants.

Finally, you must match references up to documents in your dataset (there are no citations to analyze, otherwise).

Implementation Details

The specific query run by the tool can be found in the source code.