

Extract Author Co-Citation Network

Menu path

Data Preparation > Database > ISI > Extract Author Co-Citation Network

Description

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

Each author from each document in the input database is represented by a node. An edge is drawn between the nodes for two authors if and only if they were cited by a common document in your dataset.

Analyses

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

- Node (Author)
 - Number of documents authored in your dataset.
 - Total number of times cited. Note that this according to per-document citations in the global dataset as recorded by ISI and not according to citations contained only within your dataset.
 - Publication year of the earliest document.
 - Publication year of the most recent document.
- Edge (Co-Citation)
 - The number of documents which cited both of these authors.
 - 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](#).