Practice
Text Network Analysis

Digital Business Ecosystem Research Center

WORDij

Telkom University

DIGITAL BUSINESS
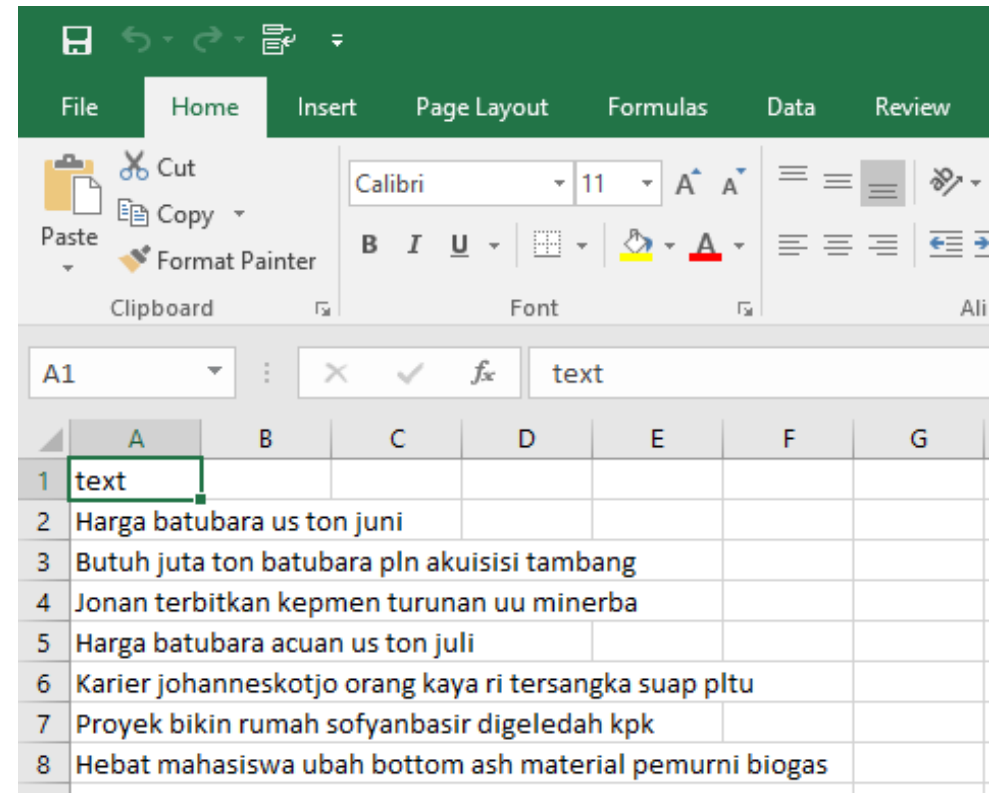ECOSYSTEM
RESEARCH CENTER

Text Network Analysis

- The analysis of text describing various kinds of "computer support solution" that allows the analyst to "extract networks of concepts" from text
- The assumption underlying the emergence text network is a relationship that is contained in every word so that it produces a pattern that can be analyzed
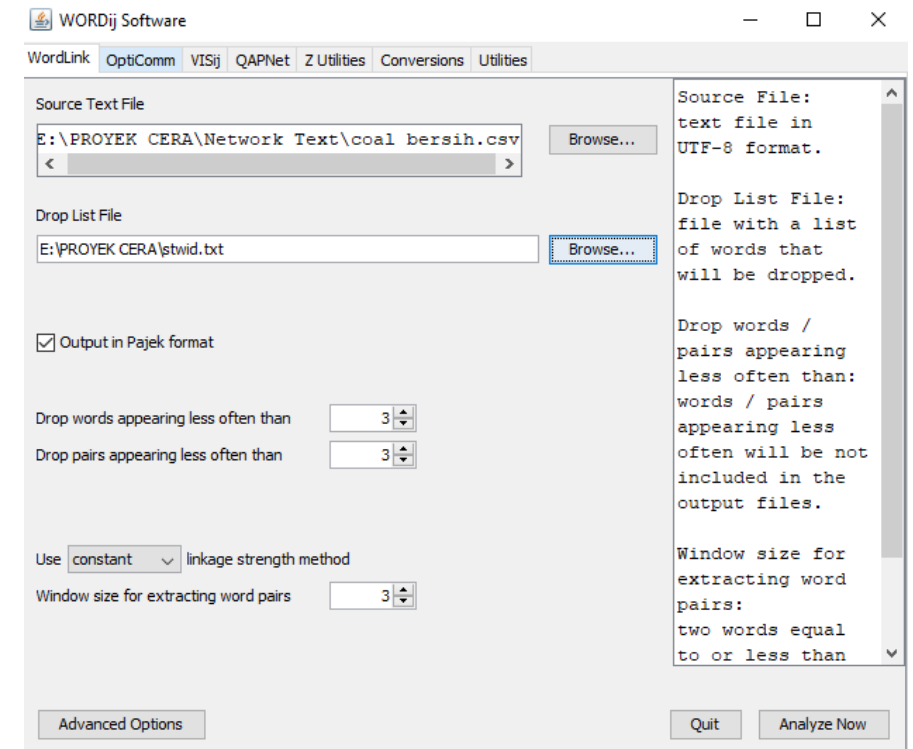
Source: Bratawisnu et al., (2017)

Data Preparation

- Prepare the data which consist textual content

- Place the textual content in one column

- Named the column with "text", then save file as .csv

- *don't forget to preprocess the data

Data Preparation

- Open WORDij
- On the "Source Text File" click browse > choose the file
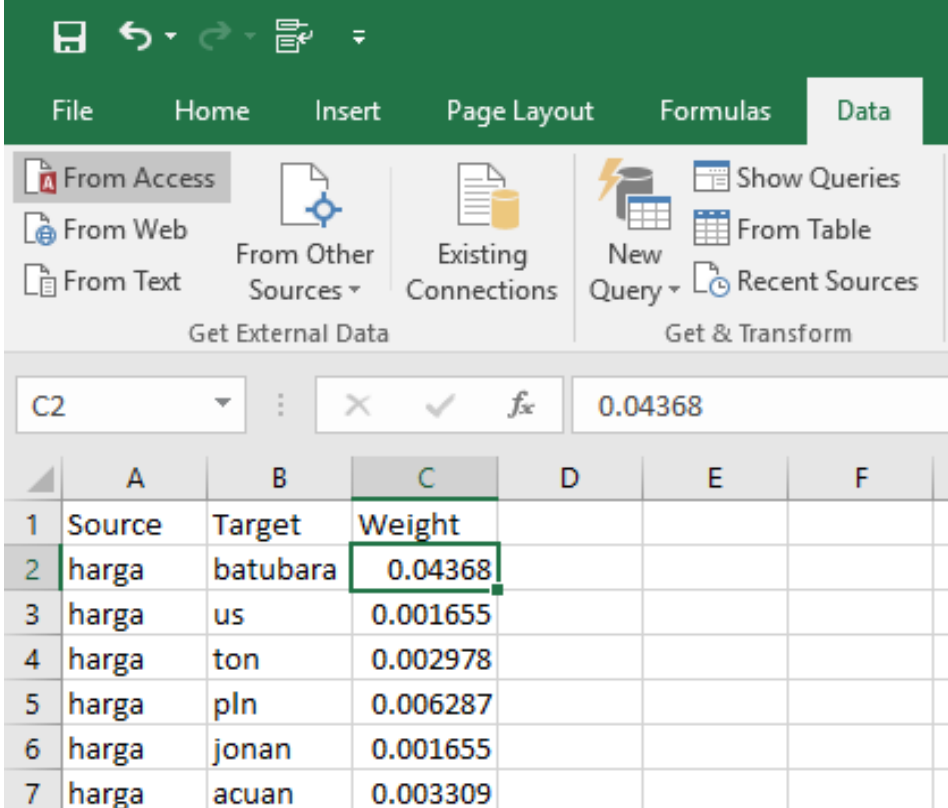- On the "Drop List File" click browse > choose file stopwords
- Then, click "Analyze Now"

WORDij Output

coal bersih.csv	20/08/2018 10:45	Microsoft Excel C...	28 KB
coal bersih.csv.log	14/09/2018 07:32	Text Document	1 KB
coal bersih.net	14/09/2018 07:32	NET File	8 KB
coal bersih.pr	14/09/2018 07:32	PR File	22 KB
coal bersih.ptg	14/09/2018 07:32	PTG File	22 KB
coal bersih.stp.csv	14/09/2018 07:32	Microsoft Excel C...	24 KB
coal bersih.stw.csv	14/09/2018 07:32	Microsoft Excel C...	8 KB
coal bersih.wrd	14/09/2018 07:32	WRD File	8 KB
coal bersih.wtg	14/09/2018 07:32	WTG File	12 KB

Data Preparation

- Create new excel file
- Place into column "pair" on the .stp file to the new excel file.
- Named the 1st column as "Source" and 2nd column as "Target"
- Place the data from "proportion" in .stp file to .xlsx which has column named source and target
- Place the data to the 3rd column and named its first row as "Weight"
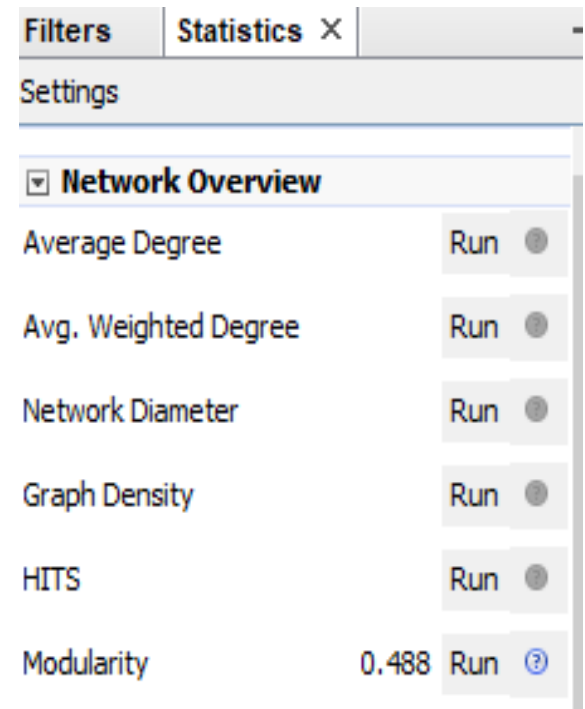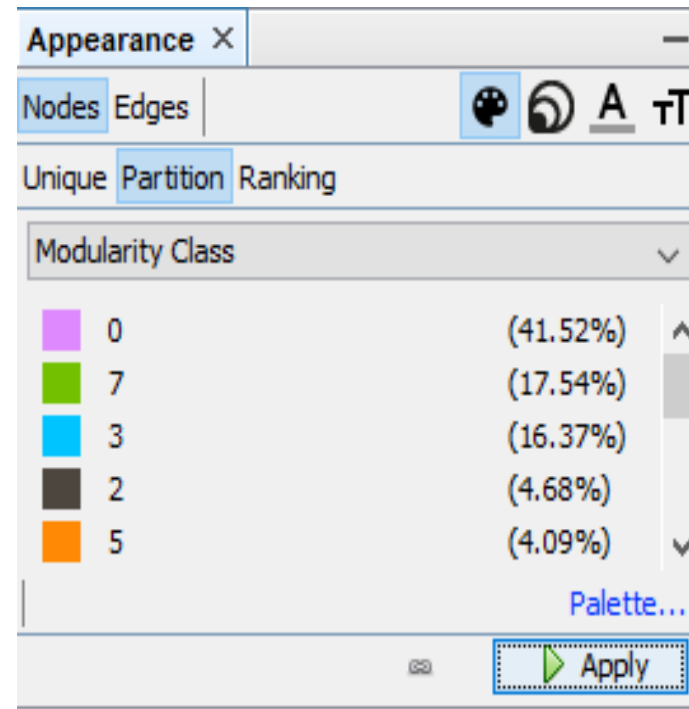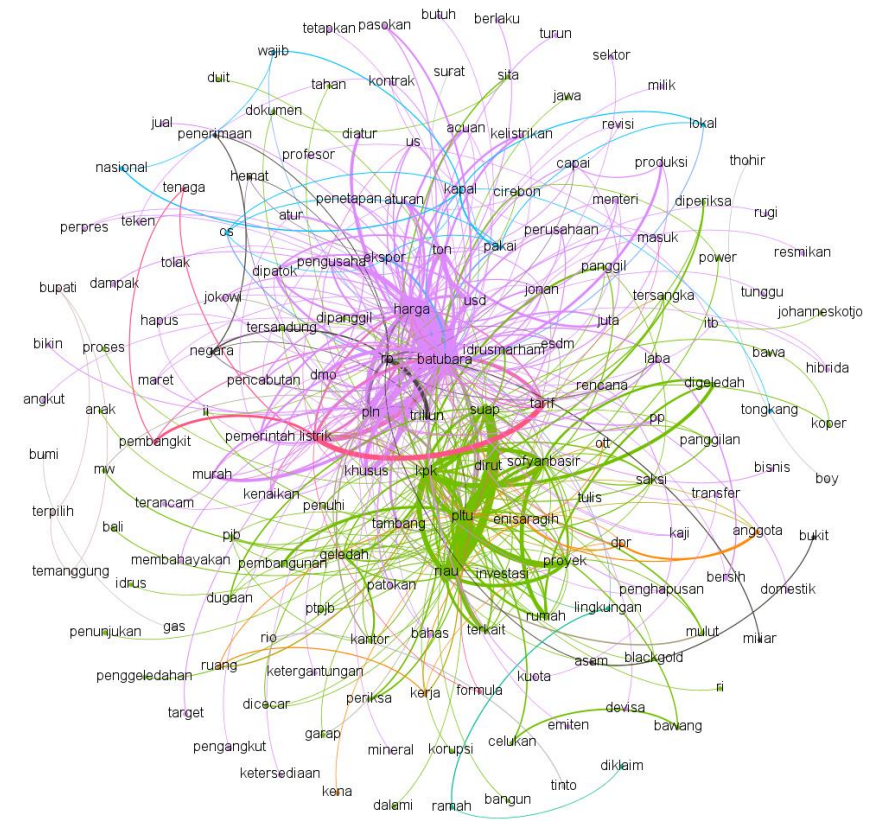- Save file as .CSV

Analyze with Gephi

- On overview, choose layout and click run
- On statistics toolbar, run "modularity" > Click Ok > finish
- On the tab appearances toolbar, click "nodes" > "Partition" > "Modularity Class" > Apply
- The modularity network will appear as different color for each groups of network.

Visualization with Gephi

- Go to data laboratory, click "copy data to other column" > choose "id" > copy to "label".
- Go to preview
- Click "show labels"
- Modify the visualization by the font or the color in the left side.
- Click Refresh

THANK YOU