VISUAL NETWORK ANALYSES WITH GEPHI
The Open Graph Viz Platform

Gephi is the leading visualisation and exploration software for all kinds of graphs and networks. Gephi is open-source and free.

Rum on Windows, Mac OS X and Linux.

Learn More on Gephi Platform →

Support us! We are non-profit. Help us to innovate and empower the community by donating only $C.

Donate →

Like Photoshop™ for graphs.

-Mike Hicken

Like this?

Share it!
“Like Photoshop...but for Graphs.”

the Community
WHAT IS GEPHI?

Gephi is an interactive visualisation and exploration platform for all kinds of networks and complex systems, dynamic and hierarchical graphs.
WHAT ARE NETWORKS?

A group or system of interconnected elements.
WHAT ARE NETWORKS?

Seven Bridges of Königsberg - Leonhard Euler, 1736
WHAT ARE NETWORKS?

Who wants to be sitting next to whom?

Redesigned network strictly based on Jacob L. Moreno (1934), Who Shall Survive.
Co-occurrence of characters in Victor Hugo’s Les Miserables
Right-wing Formations

In Europe And Their Counter-measures:

An Online Mapping
2013 - Digital Methods Initiative

Right-Wing Ecosystem:

Hungary 🇭🇺
Right-wing Formations

In Europe And Their Counter-measures:

An Online Mapping
2013 - Digital Methods Initiative

Right-Wing Ecosystem:

Denmark 🇩🇰
Right-wing Formations

In Europe And Their Counter-measures:

An Online Mapping
2013 - Digital Methods Initiative

Right-Wing Ecosystem:

The Netherlands 🇳🇱
Counter-jihadism on Facebook: Mapping Connections between Organizations in Europe
The presence of fakeness in the Dutch political Instagram: Fake content, fake sources and fake followers

In “The politics of social media manipulation: A view from the Netherlands”

Edited by Richard Rogers and Sabine Niederer.
Co-consumption of substances based on Erowid.org reports.
NETWORKS?

The essential elements of a network:

- Nodes
- Edges
Directed

Instagram
(when I follow you, but you don’t follow back)

Undirected

Facebook
(when I accept your friend request, we become both friends)
GEPHI - HOW DOES IT WORK

Forgetful and picky

I don't know her.
GEPHI - HOW DOES IT WORK

Gephi does not have CTRL + Z.
Gephi is very picky about input files.

Forgetful and picky
<table>
<thead>
<tr>
<th>Id</th>
<th>Label</th>
<th>Attribute</th>
<th>Attribute</th>
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</thead>
<tbody>
<tr>
<td>Node Id_1</td>
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<td>A</td>
<td>aaa</td>
</tr>
<tr>
<td>node Id_2</td>
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<td>2</td>
<td>B</td>
<td>bbb</td>
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<tr>
<td>node Id_3</td>
<td>Node 3</td>
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<td>C</td>
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## NODES TABLE

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<thead>
<tr>
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<th>Label</th>
<th>Attribute</th>
<th>Attribute</th>
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</thead>
<tbody>
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<td>A</td>
<td>Rome</td>
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<td>node Id_2</td>
<td>Luca</td>
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<td>node Id_3</td>
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<td>Paris</td>
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## NODES TABLE

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<th>Weight</th>
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<td>Paul</td>
<td>1</td>
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</tr>
<tr>
<td>Luca</td>
<td>Chiara</td>
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</tr>
<tr>
<td>Chiara</td>
<td>Paul</td>
<td>1</td>
<td>Undirected</td>
</tr>
</tbody>
</table>
NODES - EDGES

As a minimum requirement, you only need the edges table

In this case Gephi will create the nodes table for you
A network of co-occurrences of Game of Thrones characters*

*By co-occurrence we mean whenever a character appears close to another in the books.
Finishing touches before export

Manage Data

Layout, style and analysis
HOW TO IMPORT DATA INTO GEPHI
This is an edge dataset
Nodes are automatically created if no dataset about them is found.
LAYOUT AND STYLE
## LAYOUTS

<table>
<thead>
<tr>
<th>Spatialization</th>
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<td>Noverlap</td>
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<tr>
<td>Yifan Hi</td>
<td>Label Adjust</td>
</tr>
</tbody>
</table>
EXPORTING YOUR NETWORK
The Preview tab needs the label column filled to show the labels in the final export.
Without a local (or real) server running, this page can only be opened in Firefox. Other browsers will not load it properly for the Content Security Policy (which is good, because they automatically block possible malware from opening from your computer).
YOU
TRANSFORM
SOCIETY
BY DESIGN
DIGITAL SOCIETY SCHOOL
WHERE CHANGE TAKES SHAPE