

The Interactive Isnalyser

Automation of isnād trees drawing

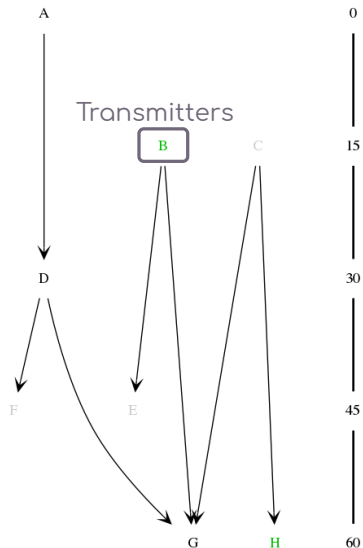
Stefan Wezel, Maroussia Bednarkiewicz, Álvaro Tejero-Cantero

mlcolab @ Tübingen University Cluster of Excellence

January 27, 2021

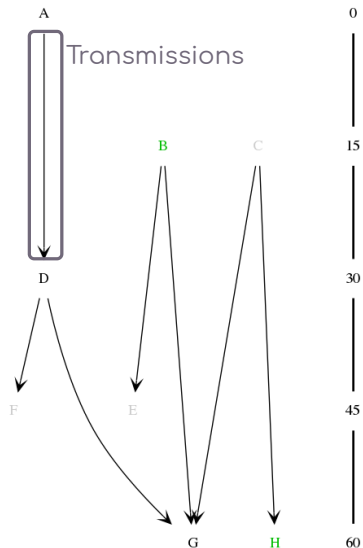
Setting

What is an isnād tree?



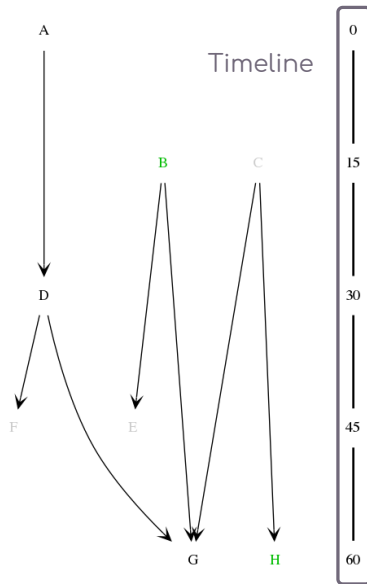
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 - Software library (Python)
 - Web application (Javascript)

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 - Software library (Python)
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- Let's start with the Python version

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- Graphviz
 - Open source tool
 - Draws graphs specified in DOT language

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 - Download and test
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- Upload to real PyPI and feel good!


Isanalyser

Publishing the library




Search projects 


isanalyser 0.1.0

pip install isanalyser 

Create isnad graphs automatically.

Navigation

 Project description

 Release history

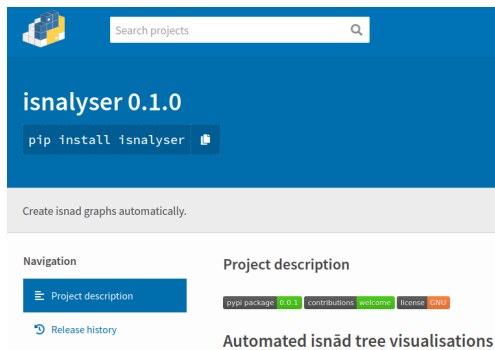
Project description

pypi package 0.0.1 contributions welcome license GNU

Automated isnad tree visualisations

Isanalyser

Publishing the library



The screenshot shows the PyPI project page for 'isanalyser 0.1.0'. At the top, there's a blue header with a search bar and a magnifying glass icon. Below the header, the project name 'isanalyser 0.1.0' is displayed in large white text. Underneath, a dark blue button contains the command 'pip install isanalyser' and a small icon. A light gray banner below the button says 'Create isnad graphs automatically.' The main content area is divided into two columns. The left column, titled 'Navigation', has a blue button for 'Project description' and a link for 'Release history'. The right column, titled 'Project description', shows a row of links: 'pypi package', '0.0.1', 'contributions', 'welcome', 'license', and 'GNU'. Below this, the text 'Automated isnād tree visualisations' is visible.

- If you are interested: Just `pip install isanalyser`
- Documentation on Github

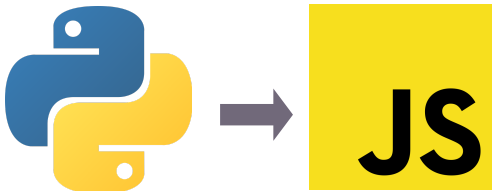
Isnalyserjs

Making the isnalyser more accessible

- Using Python library requires coding knowledge
- Limited audience/reproducibility?

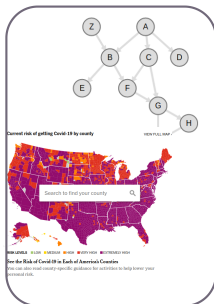
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- Natural choice: Javascript

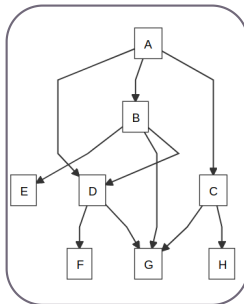
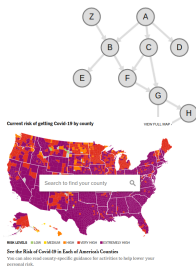


- But which extensions?
- Long phase of exploration

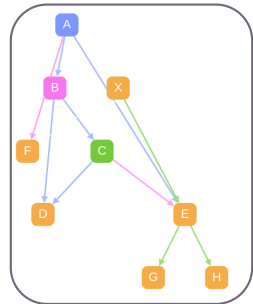
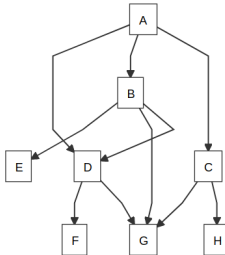
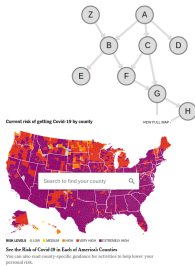
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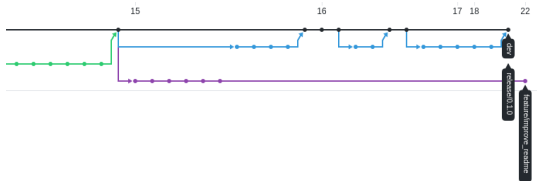
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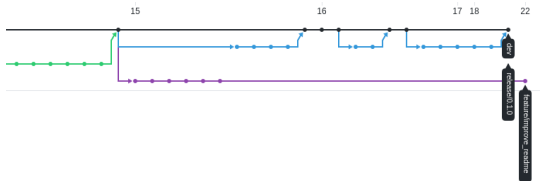
- What do we really want?
 - Edge layout
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 - Customize style
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 - → Interactive, shiny Graphviz :(
 - Solution: d3-graphviz
 - Direct translations of Graphviz to Javascript with d3-capabilities
 - Combine graphviz layout and d3 visualization/interaction

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 - Each new feature as new branch
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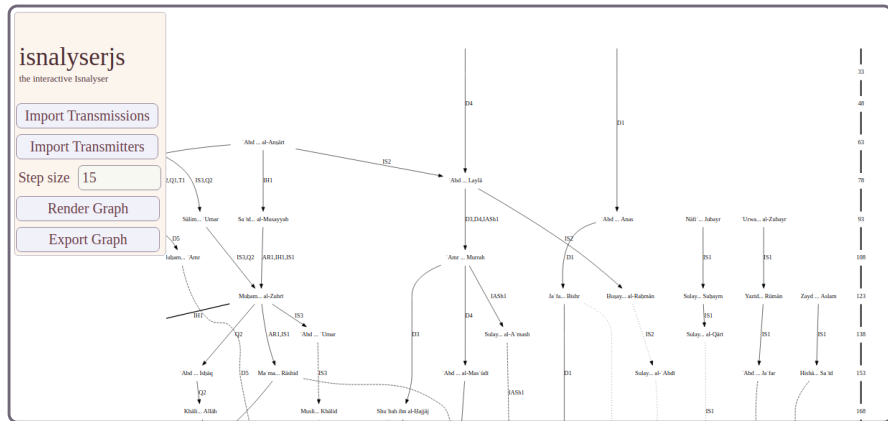
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- Transparent development history
- Always one working version
- Now at version 0.1.0 - ready for first release

Isanalyserjs

A small snippet



Future of the Isanalyser

What is next?

- Publish in Journal of Open Source Software

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What is next?

- Publish in Journal of Open Source Software
- Transform into collaborative platform
 - Users can upload and share graphs
 - Edit, annotate other graphs
- Beyond isnād trees
 - I.e. citation networks

Takeaways

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- Creating PyPI package is easy
- Git flow helps keeping track and maintaining transparency
- Most important part of the project are users
- Interaction happens on many levels
- If you interested in the isanalysers
 - Try them out
 - File github issues
 - Send us mails
 - Extend the code