Making new discoveries from old data

Utilizing digital scholarship to foster new research in special collections

Slides: goo.gl/smvkvf

Goals

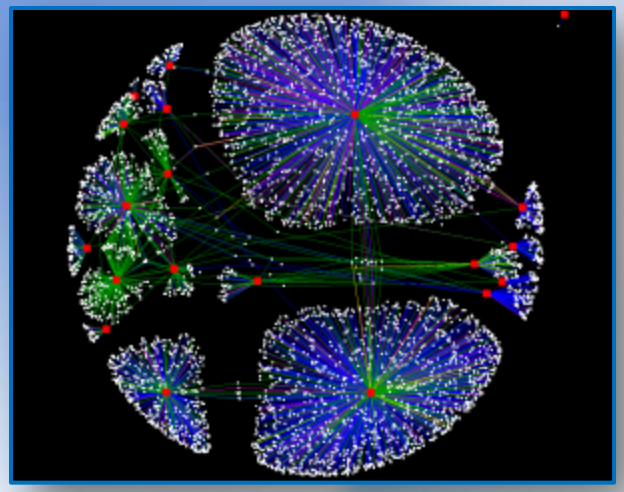
1. Explore using digital scholarship methods and tools to enhance user experience in special collections and potentially provide new services.

2. Develop a pilot project as a proof of concept for a new service.
   - Utilize existing open source technologies.
   - Little to no need for dedicated IT support.

Result

Provide visualization on demand, customized to a patron's individual research question.

- Use data from finding aids and publicly accessible databases along with open-source tools to create interactive visualizations of social networks of the creators of our archival collections.
- Make connections between entities more apparent and provide a discovery tool to spur further inquiry and research.



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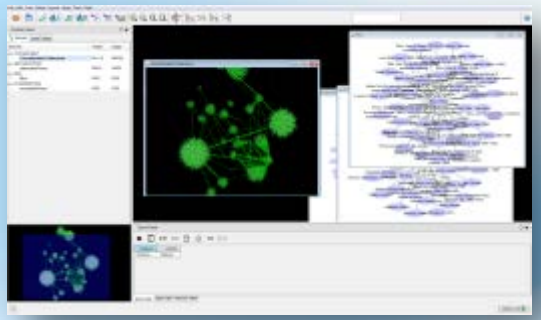

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Data Processing

EAD

EAC-CPF

Encoded Archival Description (EAD)

- Metadata standard for the encoding of finding aids for use in a networked (online) environment.

Encoded Archival Context – Corporate Bodies, Persons, and Families (EAC-CPF)

- Companion standard to Encoded Archival Description (EAD).
- Describes the entity responsible for creating (or who is represented in) one or more archival collections.

Data Processing: Tools

EAC-CPF record creation:

Social Networks and Archival Context

http://socialarchive.iath.virginia.edu/snac/search

Remixing Archival Metadata Project

http://rampeditor.info

xEAC

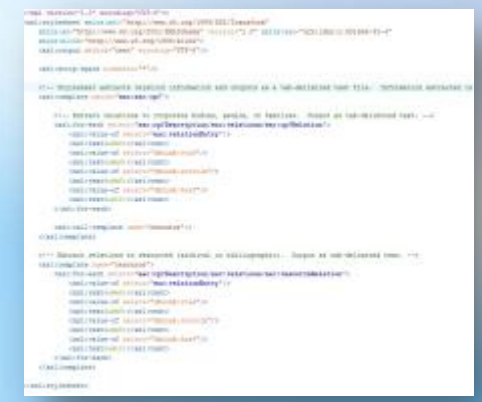
https://github.com/ewg118/xEAC

More Data Processing

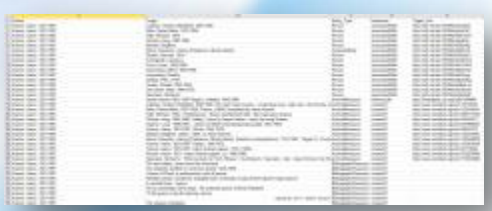
Use XSLT to extract information about connections and format output files as tab-delimited text.

EAC-CPF

XSLT



Tab-delimited text



More Data Processing

Information extracted:

- Name of connection
- Type of entity
- Type of connection
- Link to more information (when available)

```
<cpfRelation
   xlink:arcrole="http://socialarchive.iath.virginia.edu/control/term#associatedWith"
   xlink:href="http://n2t.net/ark:/99166/w6f48mrk"
   xlink:role="http://socialarchive.iath.virginia.edu/control/term#Person"
   xlink:type="simple" xmlns:xlink="http://www.w3.org/1999/xlink">
   <relationEntry>Zirlin, Larry.</relationEntry>

</cpfRelation>
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</cpfRelation>
```

More Data Processing

Information extracted:

- Name of connection
- Type of entity
- Type of connection
- Link to more information (when available)

Entity types:

- Person
- Corporate Body
- Family
- Archival Resource
- Bibliographic Resource

```
<cpfRelation
   xlink:arcrole="http://socialarchive.iath.virginia.edu/control/term#associatedWith"
   xlink:href="http://n2t.net/ark:/99166/w6f48mrk"
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   <relationEntry>Zirlin, Larry.</relationEntry>

</cpfRelation>
```

The Process

Information extracted:

- Name of connection
- Type of entity
- Type of connection
- Link to more information (when available)

Connection types:

- Associated With
- Corresponded With
- Creator Of
- Referenced In

```
<cpfRelation
   xlink:arcrole="http://socialarchive.iath.virginia.edu/control/term#associatedWith"
   xlink:href="http://n2t.net/ark:/99166/w6f48mrk"
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   <relationEntry>Zirlin, Larry.</relationEntry>

</cpfRelation>
```
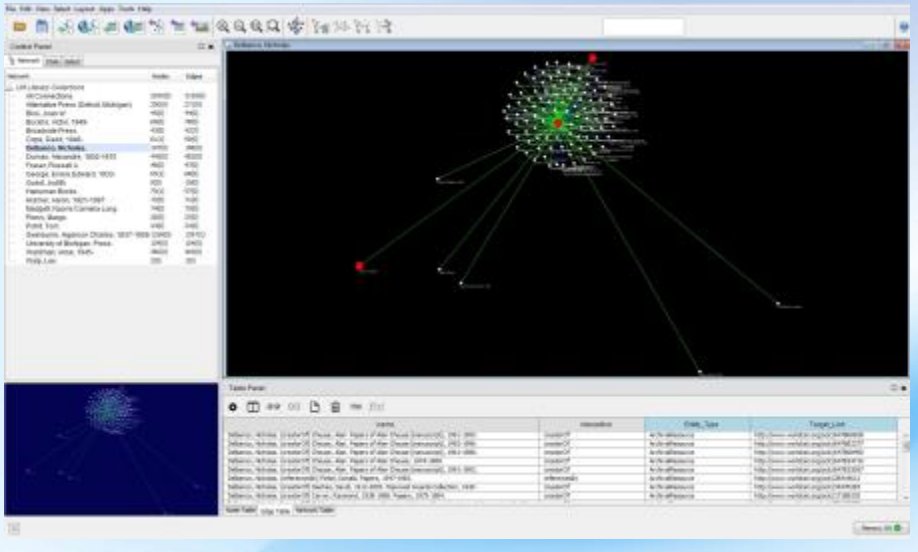
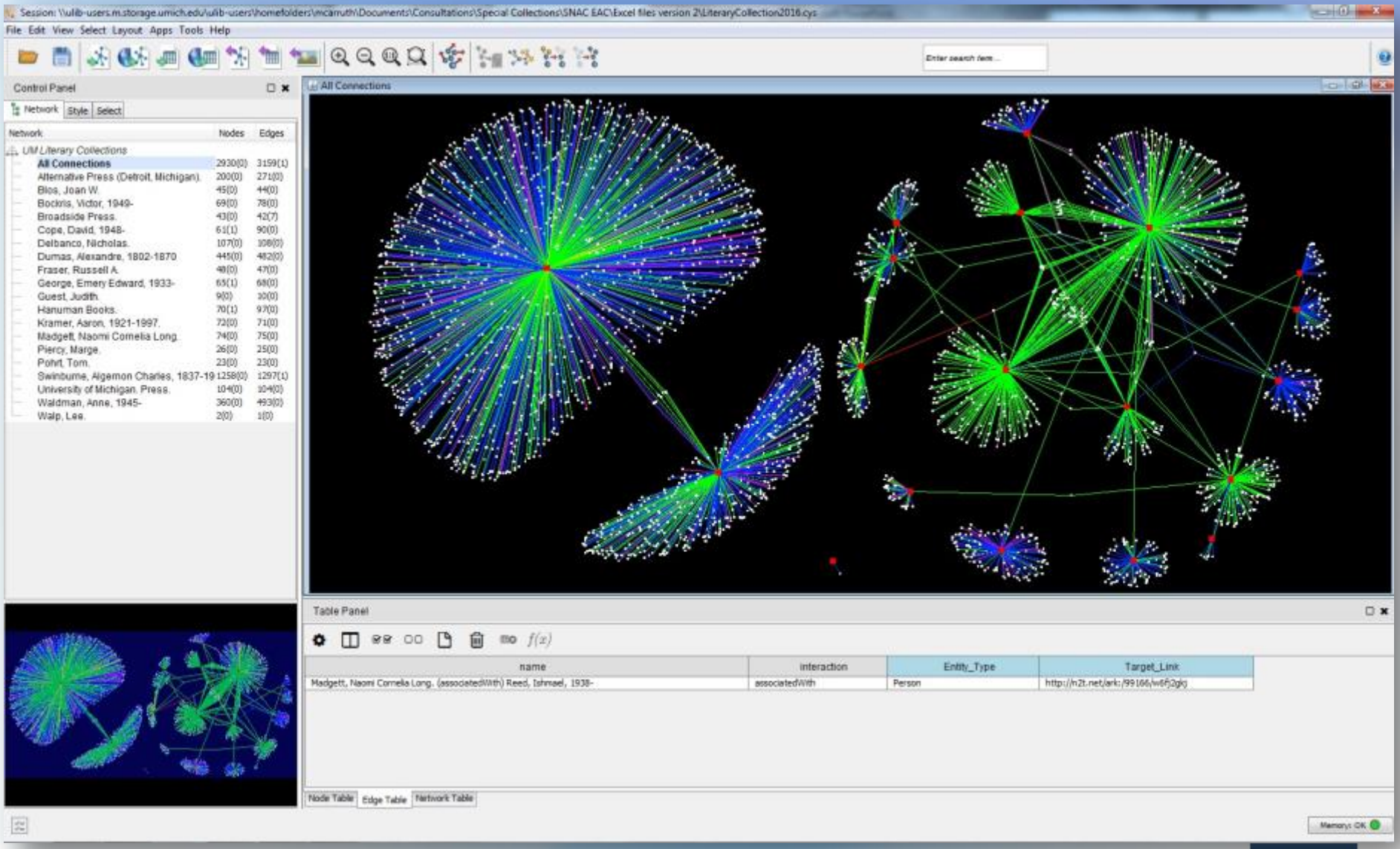

Visualizing the Data

Cytoscape – http://cytoscape.org/

- Open source desktop application for visualizing complex networks.



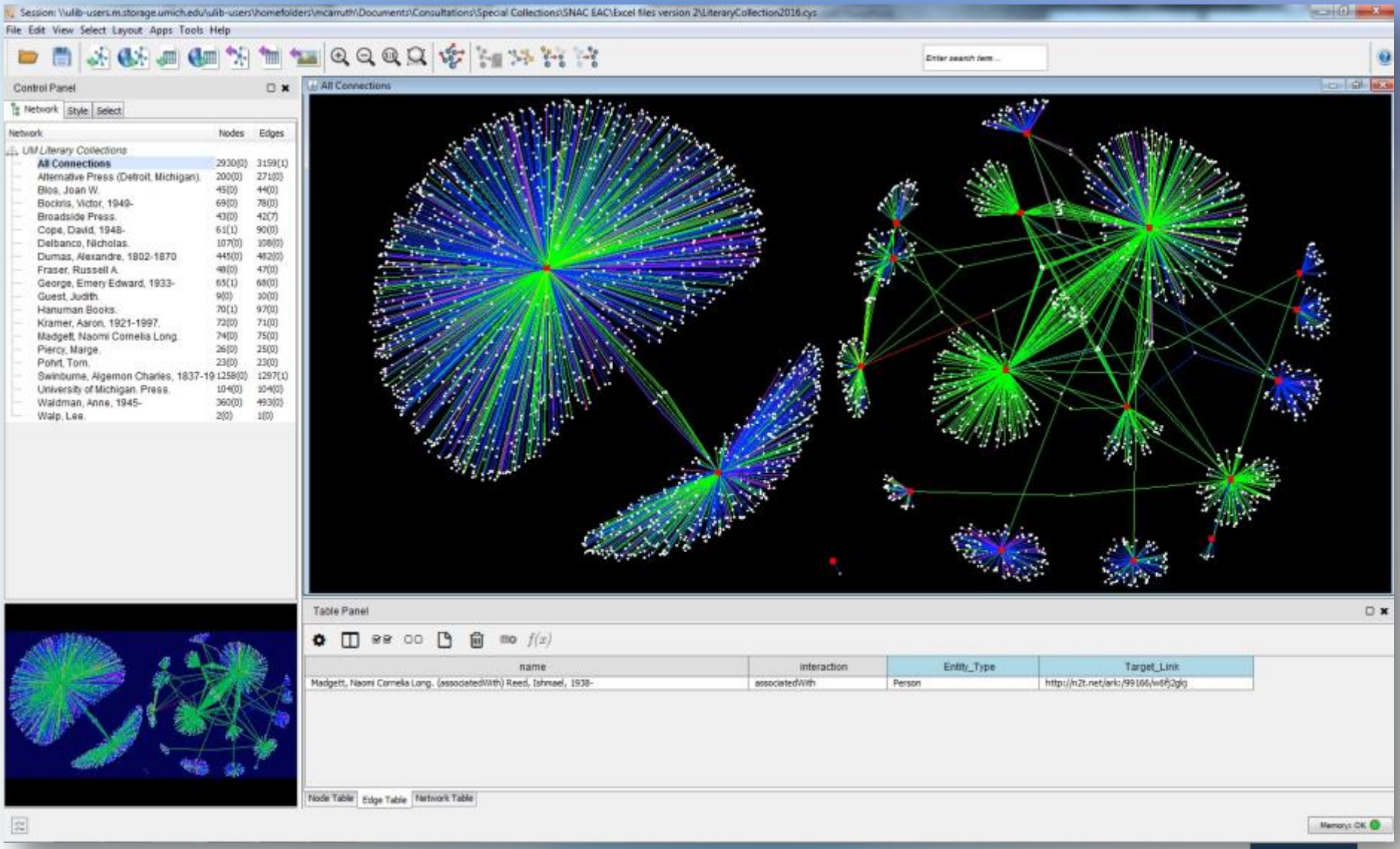


Code4Lib 2016
March 9, 2016

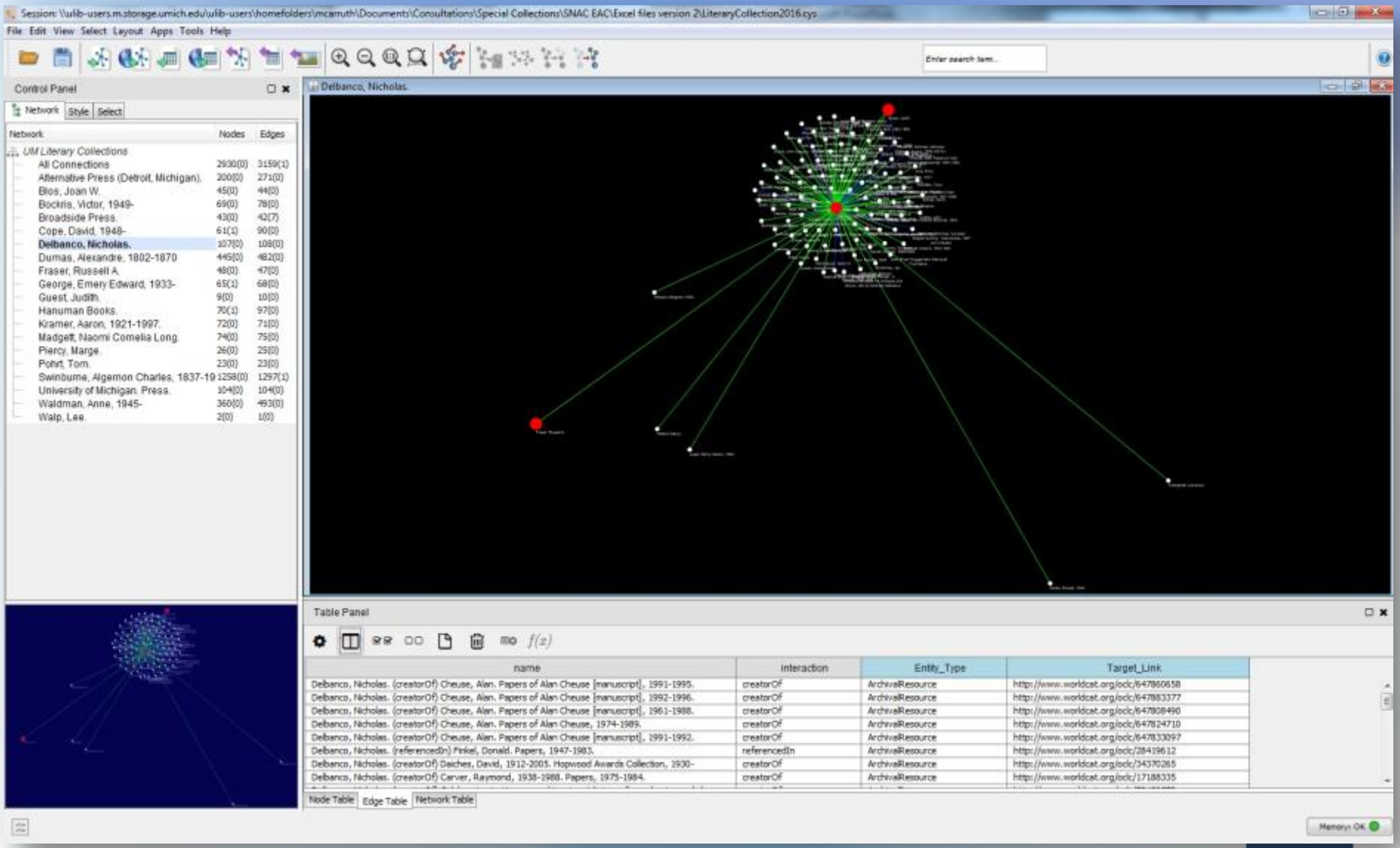
Visualizing the Data

Edge Color (Unselected) Mapping

Edge Color (Unselected)	interaction
	associatedWith
	correspondedWith
	creatorOf
	referencedIn



Code4Lib 2016
March 9, 2016



Code4Lib 2016
March 9, 2016

LIBRARY

Sharing the Visualizations

Share visualizations via web-publishing companion platform to Cytoscape:

CyNetShare

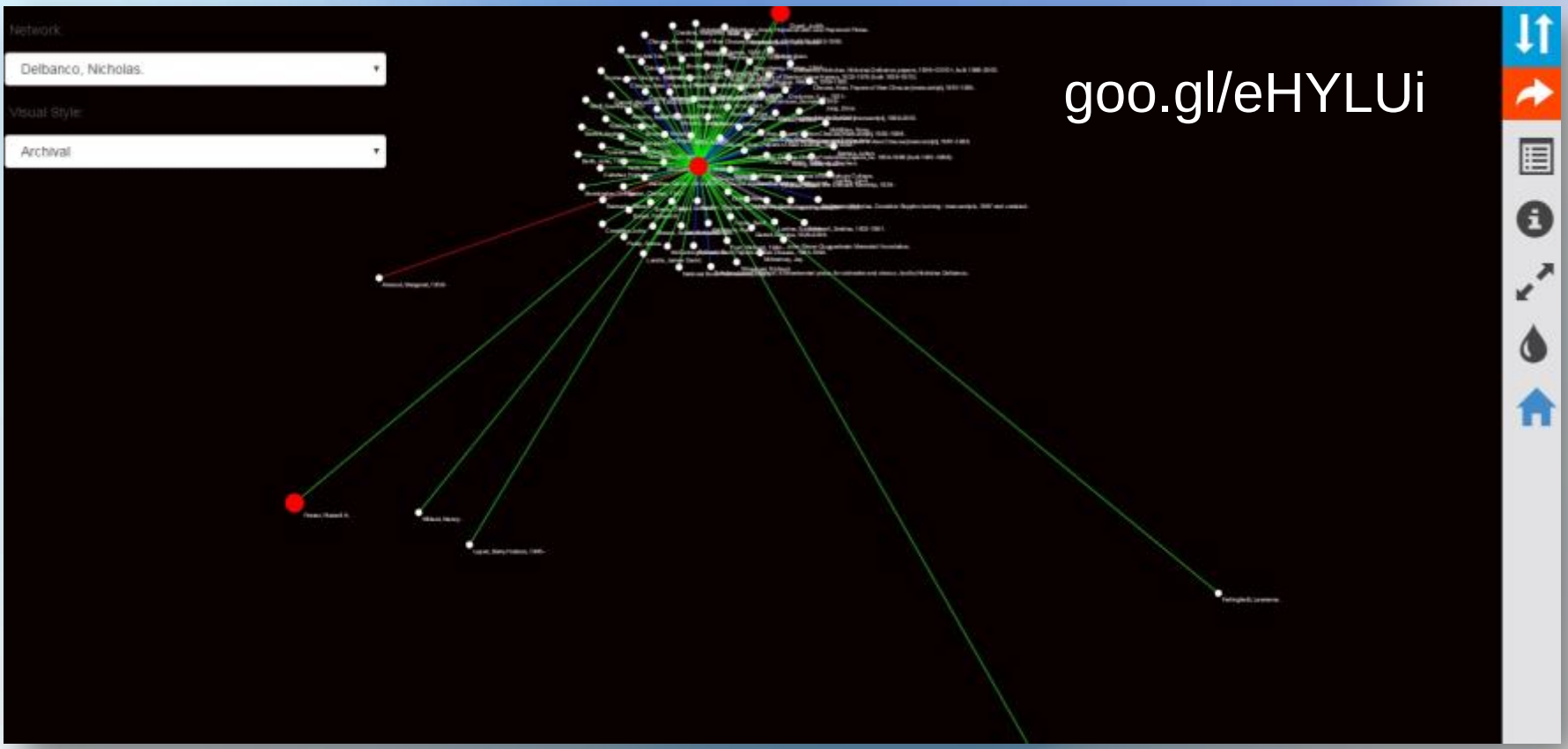
http://cynetshare.ucsd.edu/#/

Working example:

http://goo.gl/eHYLUi

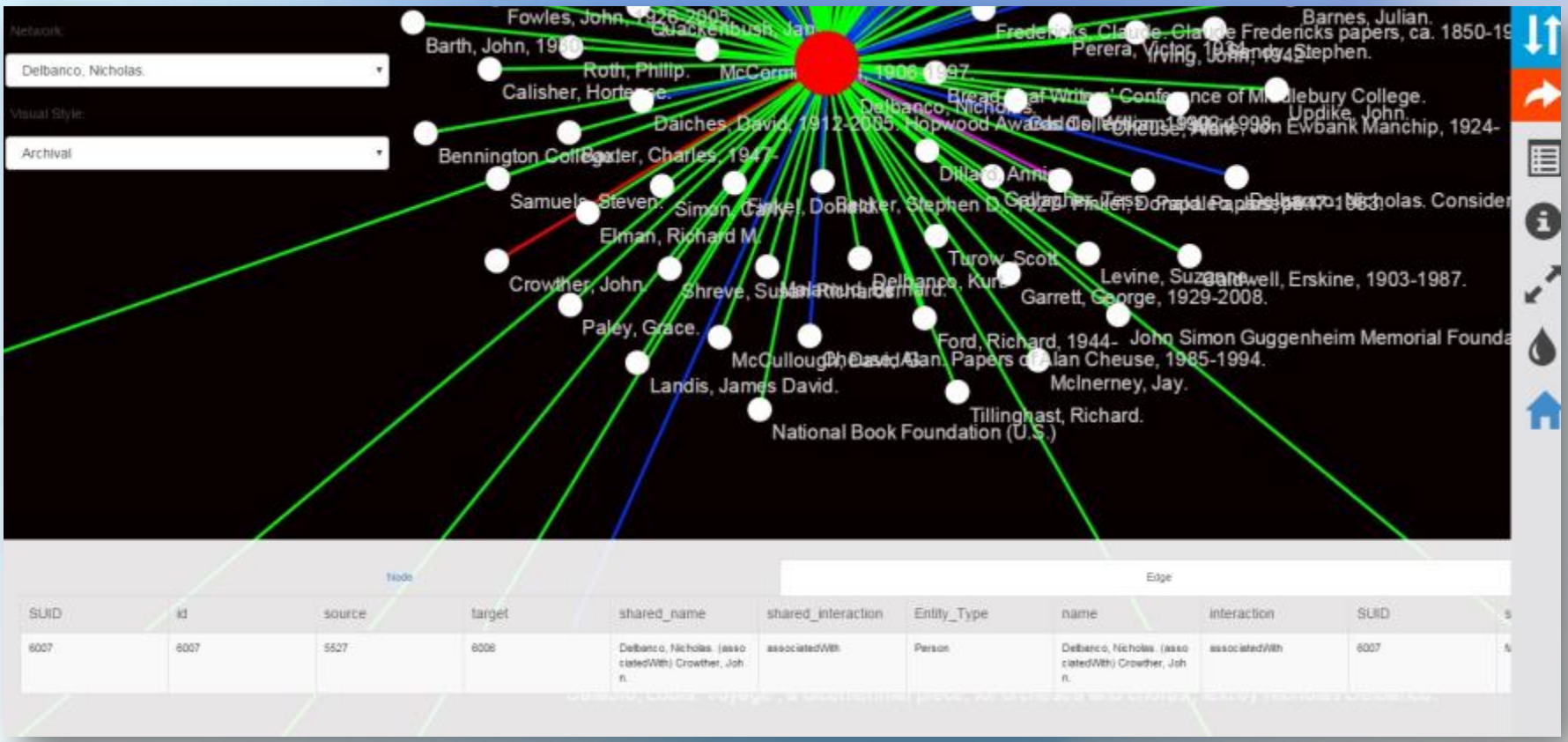
Sharing the Visualizations

Sharing the Visualizations



goo.gl/eHYLUi

Sharing the Visualizations



Next Steps

Continue to streamline the workflow

Next Steps

Perform user testing

(Incorporate feedback into service model)

Next Steps

Explore more options for using and manipulating the data

(Customize and host local CyNetShare instance)

http://www-personal.umich.edu/~mcarruth/HanumanBooksVis/web_session/index.html#/

Thanks!

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Slides: goo.gl/smvkvf