

2016-03-09

Making new discoveries from old data: Utilizing digital scholarship to foster new research in Special Collections

Carruthers, Matthew

<http://hdl.handle.net/2027.42/138108>

Making new discoveries from old data

Utilizing digital scholarship to foster new research in
special collections

Slides: goo.gl/smvkvf

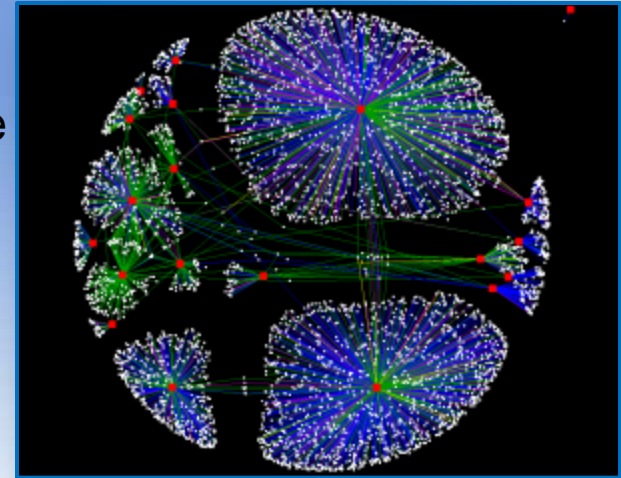
Goals

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.

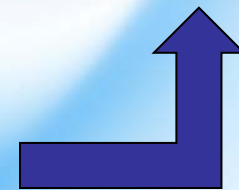
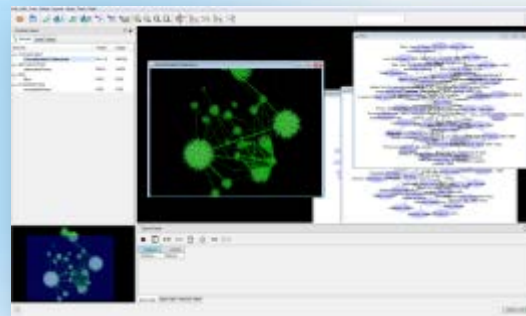
Result

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.



```
1000  
1001  
1002  
1003  
1004  
1005  
1006  
1007  
1008  
1009  
1010  
1011  
1012  
1013  
1014  
1015  
1016  
1017  
1018  
1019  
1020  
1021  
1022  
1023  
1024  
1025  
1026  
1027  
1028  
1029  
1030  
1031  
1032  
1033  
1034  
1035  
1036  
1037  
1038  
1039  
1040  
1041  
1042  
1043  
1044  
1045  
1046  
1047  
1048  
1049  
1050  
1051  
1052  
1053  
1054  
1055  
1056  
1057  
1058  
1059  
1060  
1061  
1062  
1063  
1064  
1065  
1066  
1067  
1068  
1069  
1070  
1071  
1072  
1073  
1074  
1075  
1076  
1077  
1078  
1079  
1080  
1081  
1082  
1083  
1084  
1085  
1086  
1087  
1088  
1089  
1090  
1091  
1092  
1093  
1094  
1095  
1096  
1097  
1098  
1099  
1100
```



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

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>
```


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>
```

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"
  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>
```

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"
  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>
```

More Data Processing

Information extracted:

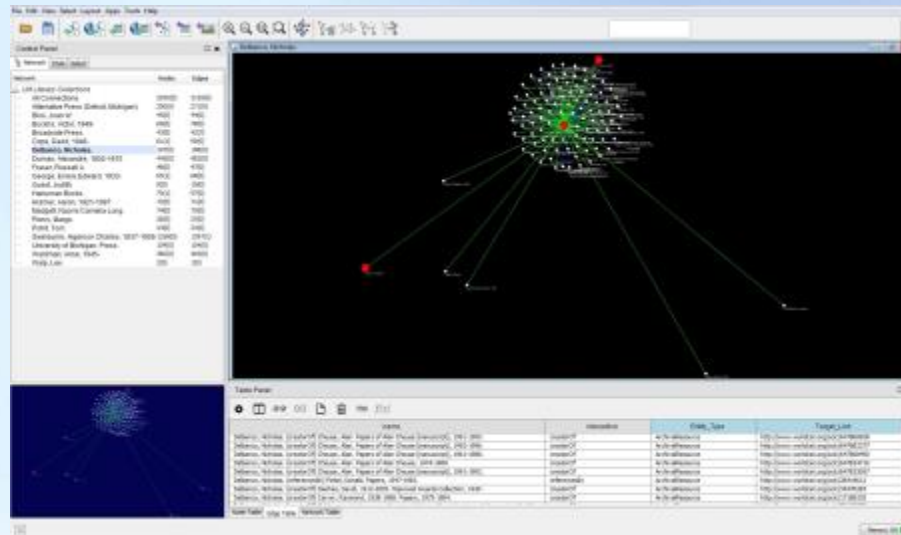
- Name of connection
- Type of entity
- Type of connection
- **Link to more information (when available)**

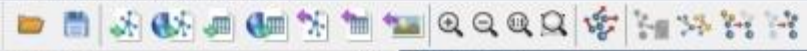
```
<cpfRelation
  xlink:arcrole="http://socialarchive.iath.virginia.edu/control/term#associatedWith"
  xlink:href="http://n2t.net/ark:/99166/w6f48mrk"
  xlink:role="http://socialarchive.iath.virginia.edu/control/term#Person"
  xlink:type="simple" xmlns:xlink="http://www.w3.org/1999/xlink">
  <relationEntry>Zirlin,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

Visualizing the Data

Cytoscape – <http://cytoscape.org/>

- Open source desktop application for visualizing complex networks.





Enter search term...

Control Panel

Network Style Select

Network Nodes Edges

UM Literary Collections

Network	Nodes	Edges
All Connections	2930(0)	3159(1)
Alternative Press (Detroit, Michigan)	200(0)	271(0)
Blos, Joan W.	45(0)	44(0)
Bockris, Victor, 1949-	69(0)	78(0)
Broadside Press	43(0)	42(7)
Cope, David, 1948-	61(1)	90(0)
Delbanco, Nicholas	107(0)	106(0)
Dumas, Alexandre, 1802-1870	445(0)	482(0)
Fraser, Russell A.	40(0)	47(0)
George, Emery Edward, 1933-	65(1)	68(0)
Guest, Judith	9(0)	10(0)
Hanuman Books	70(1)	97(0)
Kramer, Aaron, 1921-1997	72(0)	71(0)
Madgett, Naomi Cornelia Long	74(0)	75(0)
Piercy, Marge	26(0)	15(0)
Pohrt, Tom	23(0)	23(0)
Swinburne, Algernon Charles, 1837-1912	1258(0)	1297(1)
University of Michigan Press	104(0)	104(0)
Waldman, Anne, 1945-	360(0)	493(0)
Walp, Lee	2(0)	1(0)

All Connections

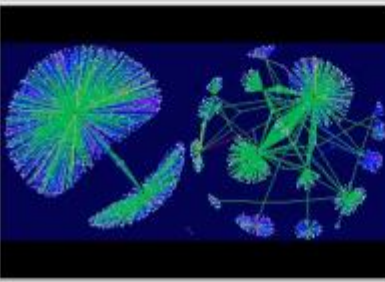
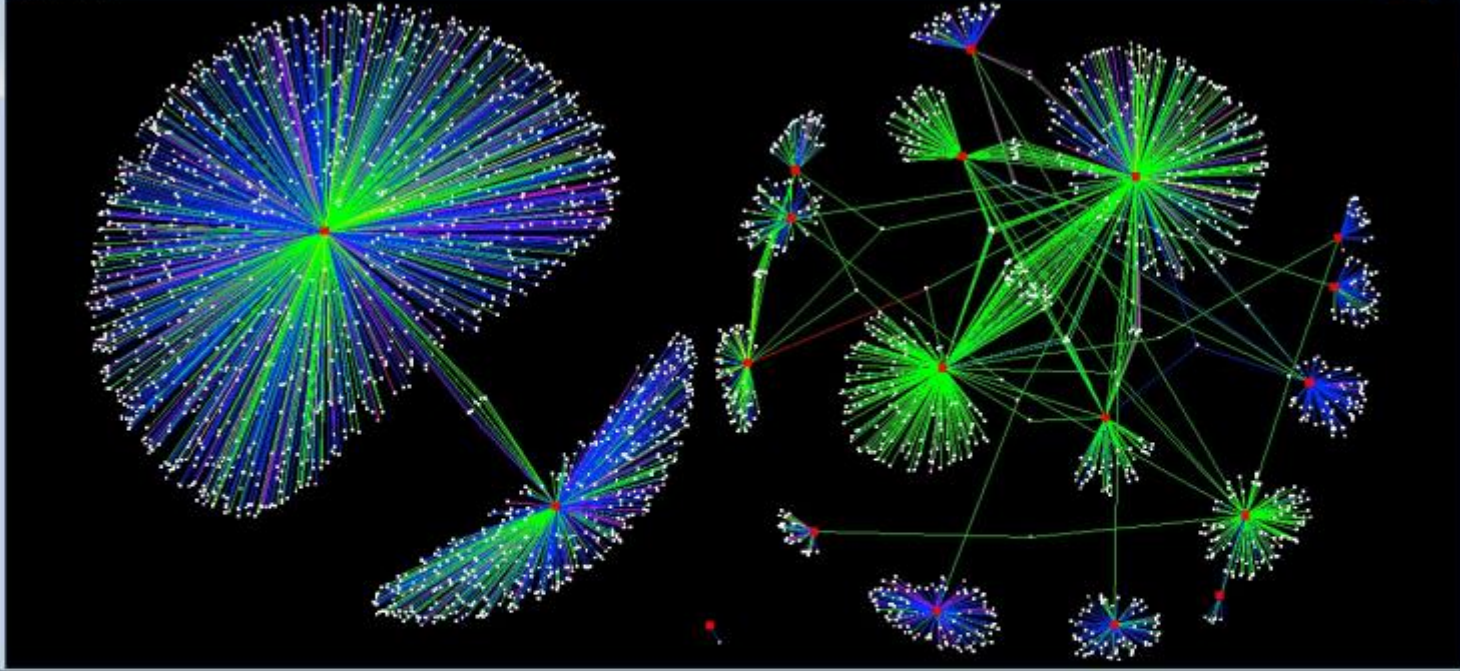
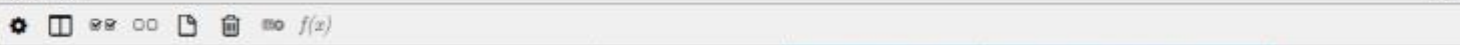


Table Panel



name	interaction	Entity_Type	Target_Link
Madgett, Naomi Cornelia Long. (associatedWith) Reed, Ishmael, 1938-	associatedWith	Person	http://hdl.handle.net/10171/10171





Node Table Edge Table Network Table

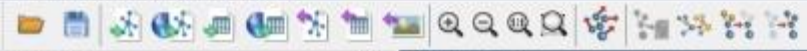
Memory: OK



Visualizing the Data

Edge Color (Unselected) Mapping

Edge Color (Unselected)	interaction
	associatedWith
	correspondedWith
	creatorOf
	referencedIn



Enter search term...

Control Panel

Network Style Select

Network	Nodes	Edges
UM Literary Collections		
All Connections	2930(0)	3159(1)
Alternative Press (Detroit, Michigan)	200(0)	271(0)
Blos, Joan W.	45(0)	44(0)
Bockris, Victor, 1949-	69(0)	78(0)
Broadside Press	43(0)	42(7)
Cope, David, 1948-	61(1)	90(0)
Delbanco, Nicholas	107(0)	106(0)
Dumas, Alexandre, 1802-1870	445(0)	482(0)
Fraser, Russell A.	40(0)	47(0)
George, Emery Edward, 1933-	65(1)	68(0)
Guest, Judith	9(0)	10(0)
Hanuman Books	70(1)	97(0)
Kramer, Aaron, 1921-1997	72(0)	71(0)
Madgett, Naomi Cornelia Long	74(0)	75(0)
Piercy, Marge	26(0)	15(0)
Pohrt, Tom	23(0)	23(0)
Swinburne, Algernon Charles, 1837-1912	1258(0)	1297(1)
University of Michigan Press	104(0)	104(0)
Waldman, Anne, 1945-	360(0)	493(0)
Walp, Lee	2(0)	1(0)

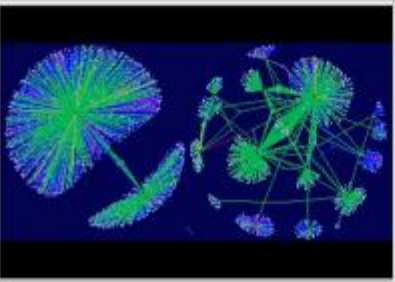
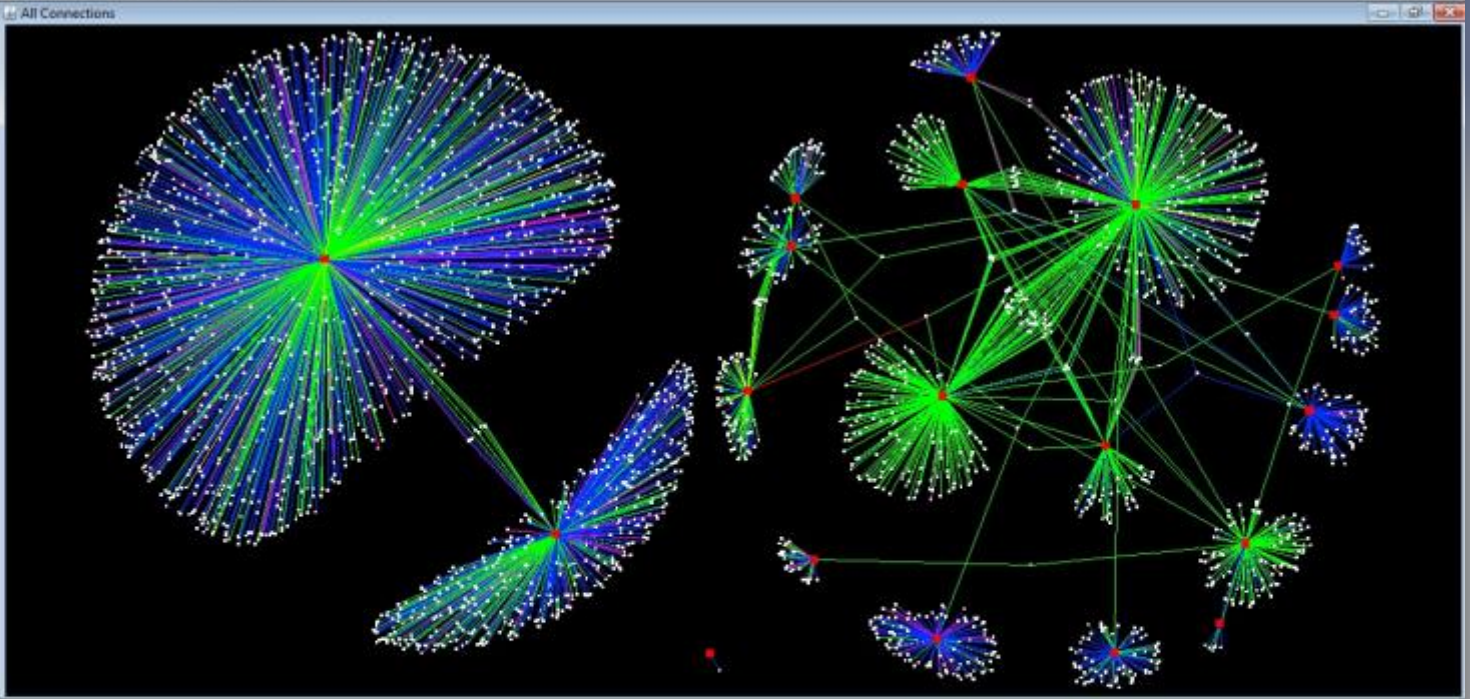


Table Panel

name	interaction	Entity_Type	Target_Link
Madgett, Naomi Cornelia Long. (associatedWith) Reed, Ishmael, 1938-	associatedWith	Person	http://hdl.net/ark:/99166/w6f2qjg

Node Table Edge Table Network Table

Memory: OK



Control Panel

Network Style Select

Network	Nodes	Edges
UM Library Collections		
All Connections	2630(0)	3159(1)
Alternative Press (Detroit, Michigan)	200(0)	271(0)
Blos, Joan W.	45(0)	44(0)
Bockris, Victor, 1949-	69(0)	78(0)
Broadside Press	430(0)	42(7)
Cope, David, 1948-	61(1)	90(0)
Delbanco, Nicholas	207(0)	108(0)
Dumas, Alexandre, 1802-1870	445(0)	462(0)
Fraser, Russell A.	48(0)	47(0)
George, Emery Edward, 1933-	65(1)	68(0)
Guest, Judith	9(0)	10(0)
Hanuman Books	70(1)	97(0)
Kramer, Aaron, 1921-1997	72(0)	71(0)
Madgett, Naomi Comelia Long	74(0)	75(0)
Piercy, Marge	26(0)	25(0)
Pont, Tom	23(0)	23(0)
Swinburne, Algemon Charles, 1837-19	1258(0)	1297(1)
University of Michigan Press	304(0)	104(0)
Waldman, Anne, 1945-	360(0)	493(0)
Walp, Lee	2(0)	1(0)

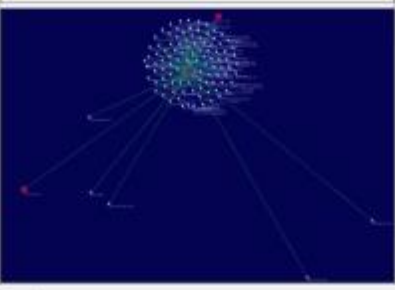
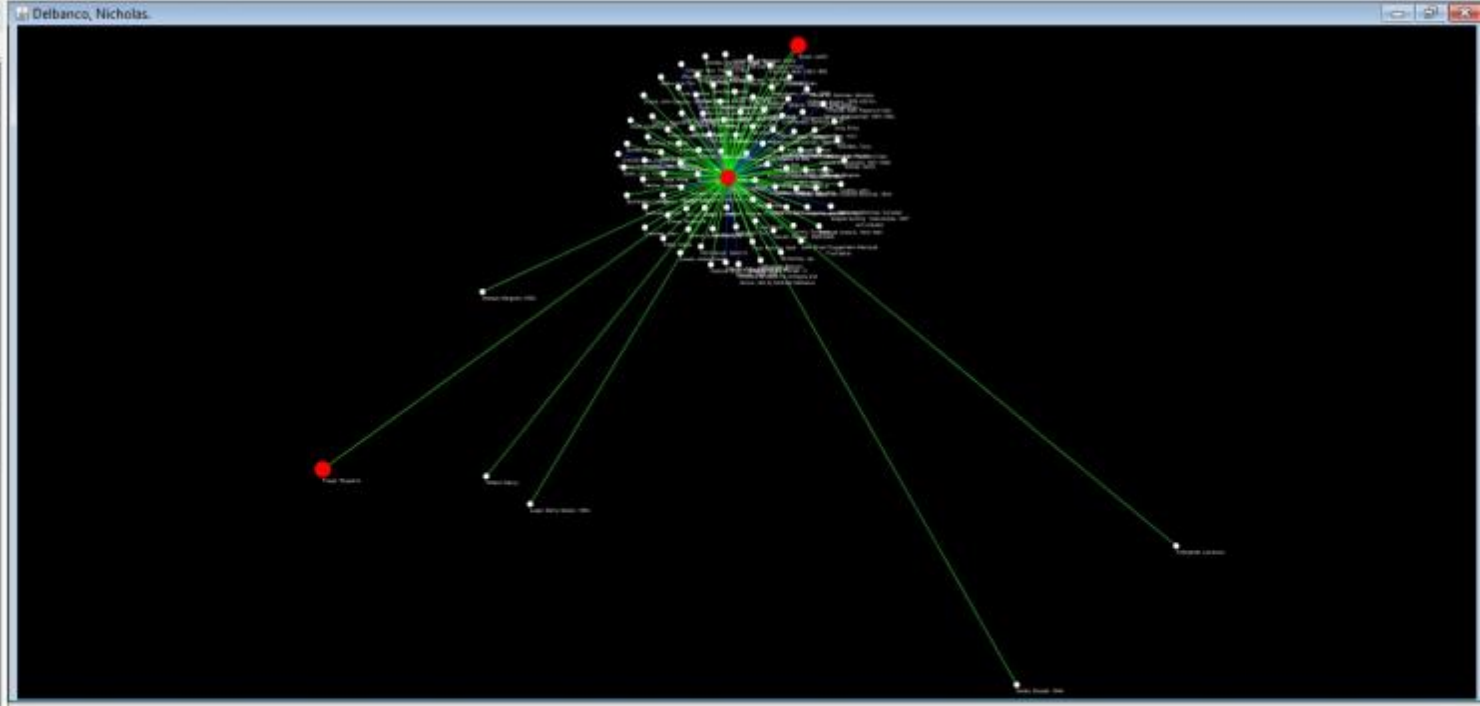


Table Panel

name	interaction	Entity_Type	Target_Link
Delbanco, Nicholas. (creatorOf) Cheuse, Alan. Papers of Alan Cheuse [manuscript], 1991-1995.	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/647860658
Delbanco, Nicholas. (creatorOf) Cheuse, Alan. Papers of Alan Cheuse [manuscript], 1992-1996.	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/647883377
Delbanco, Nicholas. (creatorOf) Cheuse, Alan. Papers of Alan Cheuse [manuscript], 1961-1988.	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/647808490
Delbanco, Nicholas. (creatorOf) Cheuse, Alan. Papers of Alan Cheuse, 1974-1989.	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/647824710
Delbanco, Nicholas. (creatorOf) Cheuse, Alan. Papers of Alan Cheuse [manuscript], 1991-1992.	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/647833097
Delbanco, Nicholas. (referencedIn) Finkel, Donald. Papers, 1947-1983.	referencedIn	ArchiveResource	http://www.worldcat.org/oclc/28419612
Delbanco, Nicholas. (creatorOf) Satches, David, 1912-2003. Hopwood Awards Collection, 1930-	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/34370265
Delbanco, Nicholas. (creatorOf) Carver, Raymond, 1938-1988. Papers, 1975-1984.	creatorOf	ArchiveResource	http://www.worldcat.org/oclc/17188335

Node Table | Edge Table | Network Table

Memory OK

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

CyNetShare



An easy way to share your network visualizations

Project Web Site

Documentation

Public Files

Gists

Network Data URL

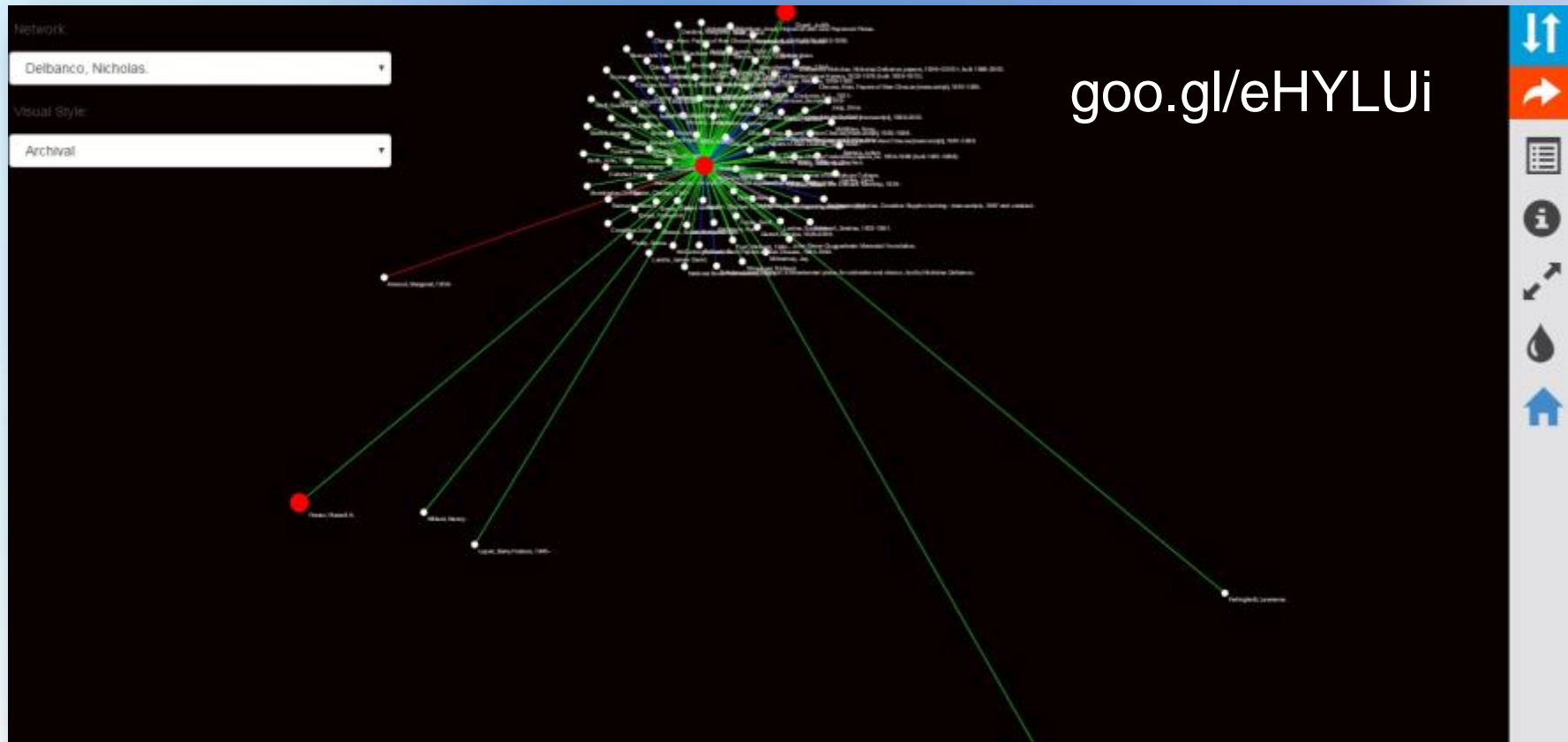
Enter Network File URL

Visual Style URL
(Optional)

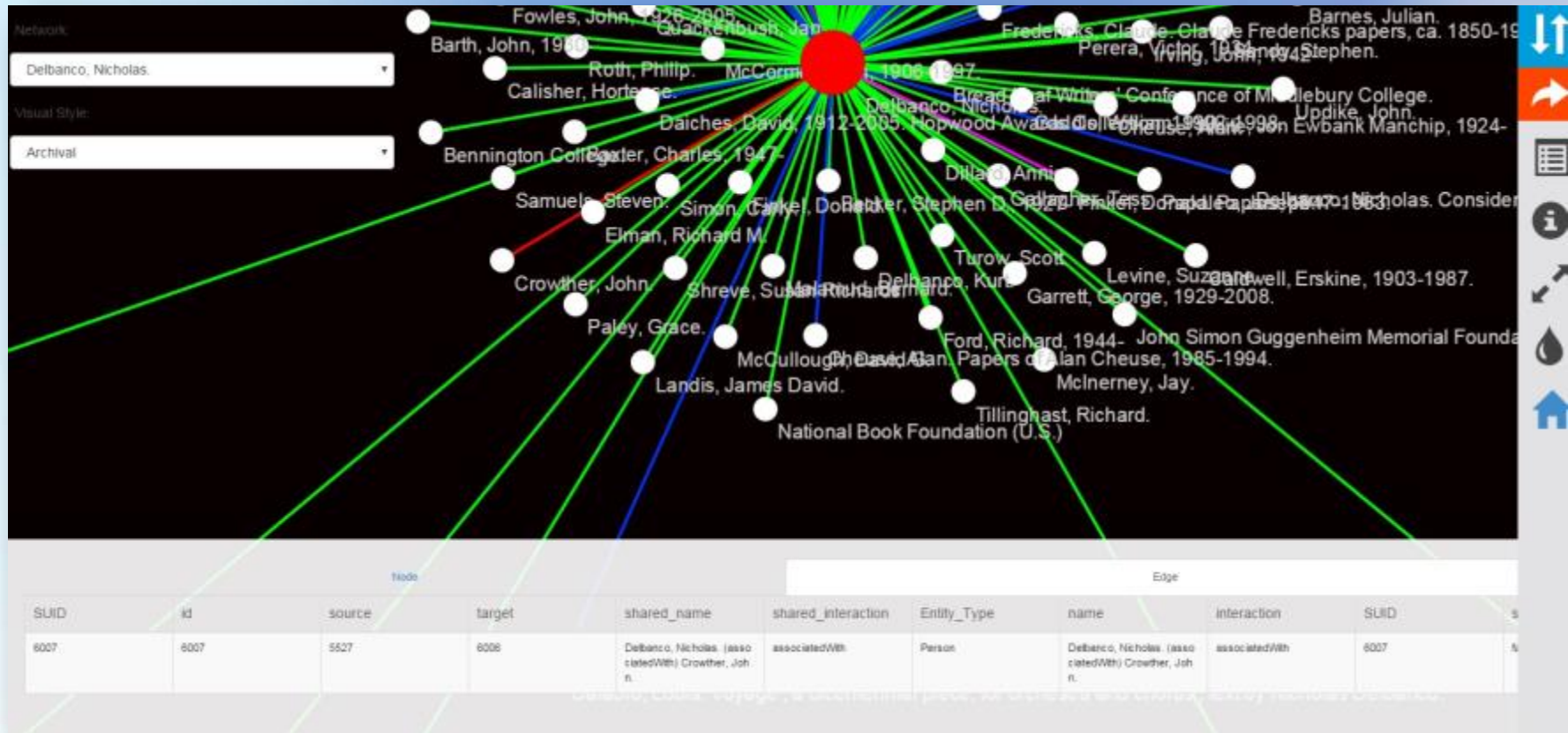
Enter Style URL

Visualize!

Sharing the Visualizations



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

Thanks!

Matt Carruthers

mcarruth@umich.edu

@mattadata2

Slides: goo.gl/smvkvf