LINKED JAZZ

Using Linked Open Data to Map Relationships Among Musicians

Bill Levay, Pratt Institute

48th Annual ARSC Conference, May 16, 2014

Overview

- Project goals
- Why Linked (Open) Data?
- What has Linked Jazz done so far?
- Where is Linked Jazz going in the future?

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The Project

- Experiment with applying Linked Open Data technology to archival materials in order to enhance visibility and access

- Develop tools to facilitate discovery and analysis of the archives of jazz history

- Make Linked Jazz dataset openly available on the web

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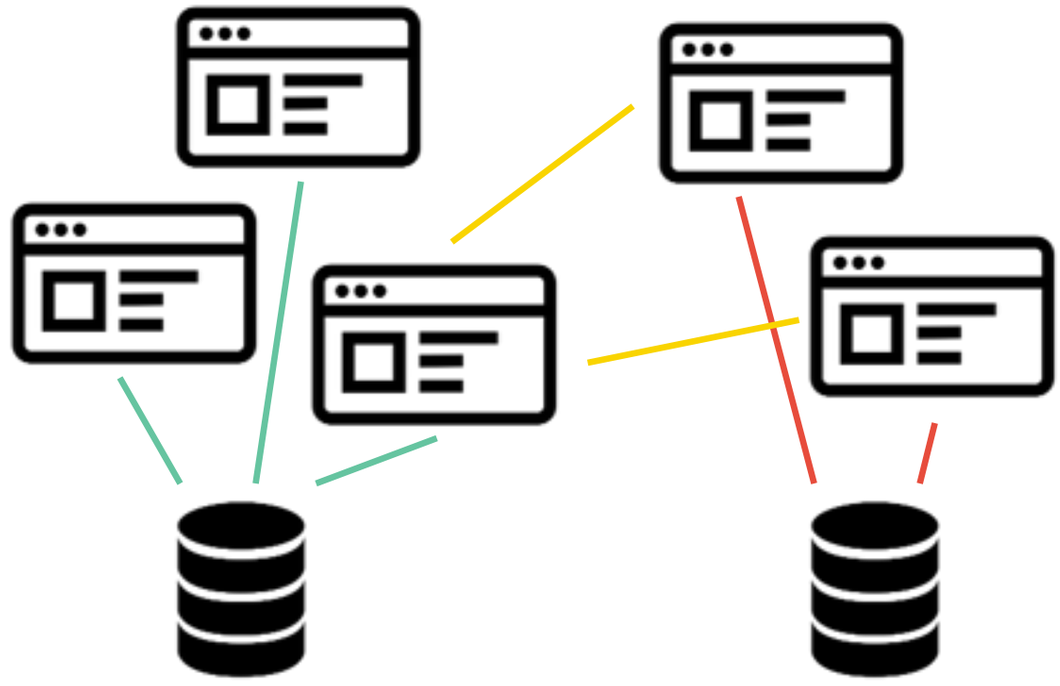
Linked Data

From a web of documents…

Current landscape:

- Lots of linked documents
- Databases are silos of information
- User interprets how documents are related



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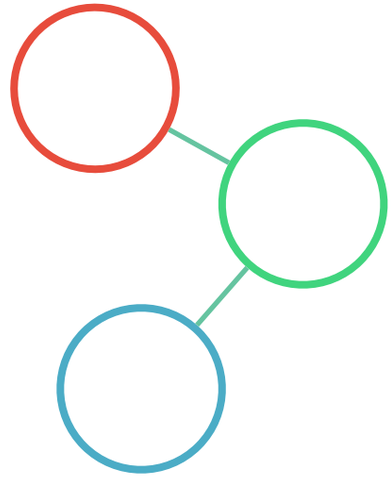
Linked Data

…to a web of data

- Databases are interconnected

- Data is structured in a standardized way



- Relationships between data are made explicit
- URIs point to data `<http://dbpedia.org/resource/John_Coltrane>`

LINKED JAZZ

WIKIPEDIA
The Free Encyclopedia

Main page
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Български
Bosanski
Català
Čeština
Dansk
Deutsch

John Coltrane

From Wikipedia, the free encyclopedia

"Coltrane" redirects here. For other uses, see Coltrane (disambiguation).

John William Coltrane, also known as "**Trane**" (September 23, 1926 – July 17, 1967),[1] was an American jazz saxophonist and composer. Working in the bebop and hard bop idioms early in his career, Coltrane helped pioneer the use of modes in jazz and was later at the forefront of free jazz. He organized at least fifty recording sessions as a leader during his career, and appeared as a sideman on many other albums, notably with trumpeter Miles Davis and pianist Thelonious Monk.

As his career progressed, Coltrane and his music took on an increasingly spiritual dimension. His second wife was pianist Alice Coltrane and their son Ravi Coltrane is also a saxophonist. Coltrane influenced innumerable musicians, and remains one of the most significant saxophonists in music history. He received many posthumous awards and recognitions, including canonization by the African Orthodox Church as **Saint John William Coltrane** and a special Pulitzer Prize in 2007.[2]

Contents [hide]

1 Biography
1.1 Early life and career (1926–1954)
1.2 Miles and Monk period (1955–1957)
1.3 Davis and Coltrane
1.4 First albums as leader
1.5 First years with Impulse Records (1960–1962)
1.6 Classic Quartet period (1962–1965)

John Coltrane

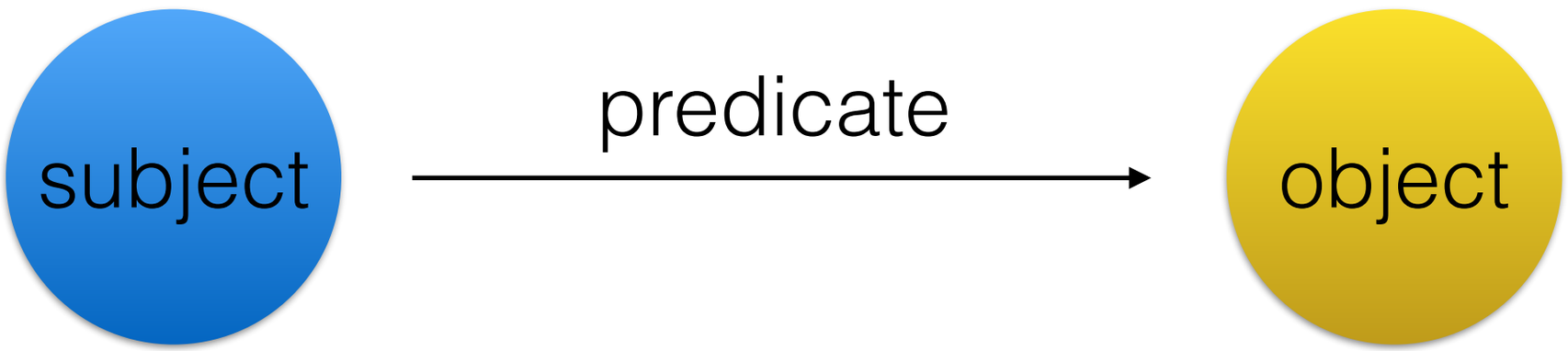
Coltrane in 1963

Background information	
Birth name	John William Coltrane
Also known as	"Trane"
Born	September 23, 1926 Hamlet, North Carolina, USA

http://en.wikipedia.org/wiki/John_Coltrane

Linked Data

RDF Triples



composed

```
<http://dbpedia.org/resource/John_Coltrane>
   <http://purl.org/ontology/mo/composer>
<http://dbpedia.org/resource/A_Love_Supreme>
```

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dbpedia-owl:alias	"Trane"
dbpedia-owl:associatedBand	dbpedia:Eric_Dolphy dbpedia:Alice_Coltrane dbpedia:Thelonious_Monk dbpedia:Miles_Davis_Quintet dbpedia:Pharoah_Sanders
dbpedia-owl:associatedMusicalArtist	dbpedia:Eric_Dolphy dbpedia:Alice_Coltrane dbpedia:Thelonious_Monk dbpedia:Miles_Davis_Quintet dbpedia:Pharoah_Sanders
dbpedia-owl:background	non_vocal_instrumentalist
dbpedia-owl:birthDate	1926-09-23 (xsd:date)
dbpedia-owl:birthPlace	dbpedia:Hamlet,_North_Carolina dbpedia:United_States dbpedia:North_Carolina
dbpedia-owl:deathDate	1967-07-17 (xsd:date) --07-17
dbpedia-owl:deathPlace	dbpedia:Huntington,_New_York dbpedia:Long_Island dbpedia:United_States dbpedia:New_York
dbpedia-owl:genre	dbpedia:Modal_jazz dbpedia:Free_jazz dbpedia:Hard_bop dbpedia:Post-bop dbpedia:Avant-garde_jazz
dbpedia-owl:instrument	dbpedia:Soprano_saxophone dbpedia:Tenor_saxophone dbpedia:Alto_saxophone
dbpedia-owl:occupation	dbpedia:Composer dbpedia:Saxophone dbpedia:Bandleader
dbpedia-owl:recordLabel	dbpedia:Impulse!_Records dbpedia:Atlantic_Records dbpedia:Blue_Note_Records dbpedia:Pablo_Records dbpedia:Prestige_Records
dbpedia-owl:thumbnail	http://upload.wikimedia.org/wikipedia/commons/thumb/a/a1/John_Coltrane_Live_at_Birdland.png/200px-John_Coltrane_Live_at_
dbpedia-owl:wikiPageExternalLink	http://www.johncoltrane.com/ http://www.mossiehigh.com/Coltrane http://www.johncoltrane.com http://www.infography.com/content/736735270236.html http://jazztimes.com/articles/24832-john-coltrane-images-of-trane http://www.colby.edu/music/honors/Bertholf.pdf

http://dbpedia.org/resource/John_Coltrane

Linked Open Data

Best Practices

1 Available on the web with an open license

2 Available as structured data (formatted, editable)

3 Use non-proprietary formats (CSV instead of Excel)

4 Use URIs to denote things so people can 'point' to it

5 Link your data to other data and provide context

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Linked Jazz, so far

- Get the names of musicians
- Find the names in oral history transcripts
- Describe the relationships and map them

First phase was funded through an OCLC/ALISE Library and Information Science Research grant.

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Linked Jazz Name Directory

- *Data processing:*
  Extract and ingest names from DBpedia and name authority files (LC & VIAF) via Python scripts

- *Human curation:*
  Manually refine results with the Curator Tool

- *Resulting Linked Jazz Name Directory:*
  ~9,000 individuals represented by triples, e.g.:

```
<http://dbpedia.org/resource/Mary_Lou_Williams>
<http://xmlns.com/foaf/0.1/name> "Mary Lou Williams"
```

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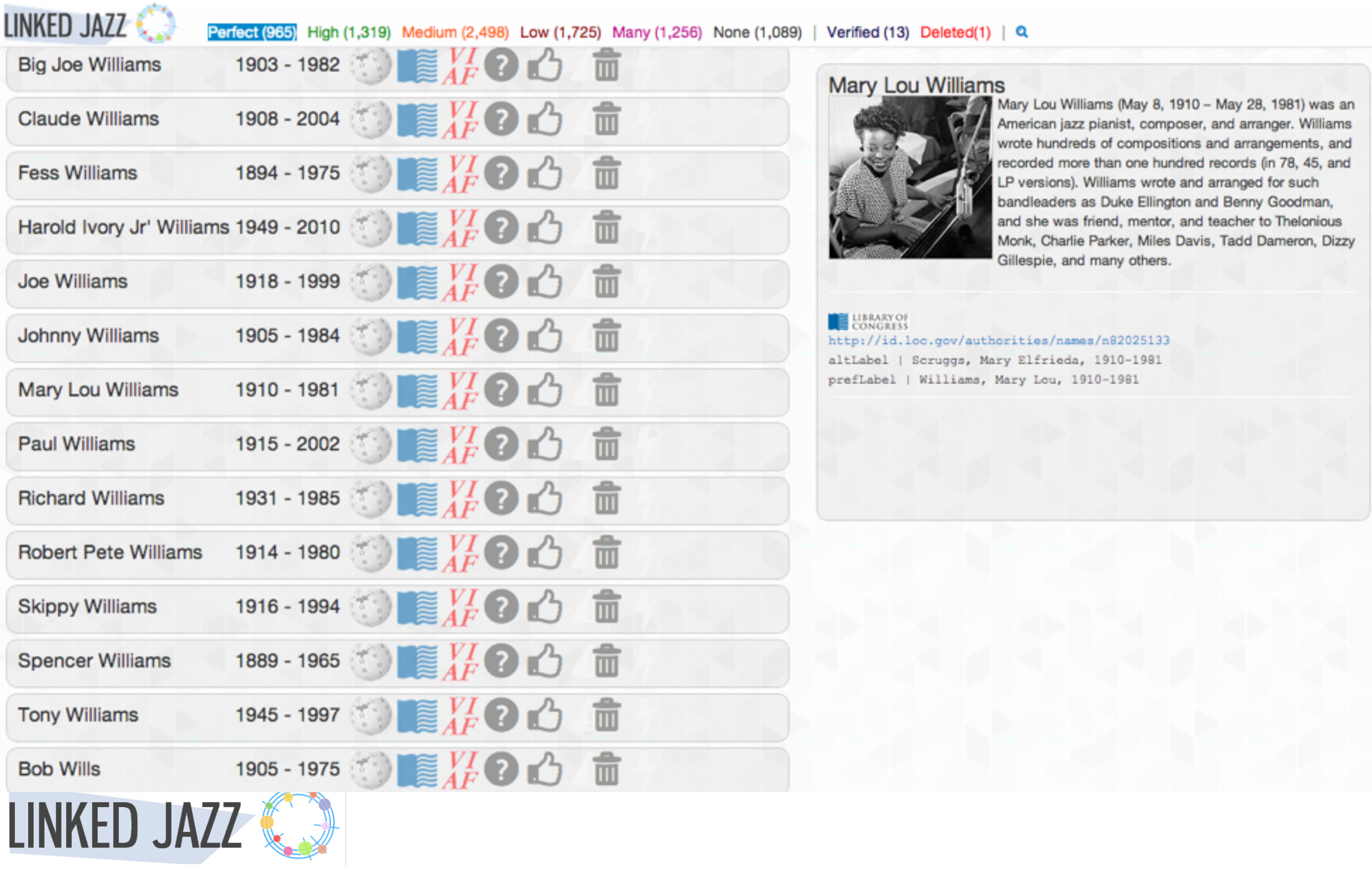
Curator Tool



Transcript Analyzer

- Oral history transcripts from the Smithsonian, Rutgers, Hamilton College, University of Michigan

- Automated named-entity recognition enabled through the use of natural language processing

- Splits interview content into question-and-answer segments, later used in the Linked Jazz 52nd Street crowdsourcing tool

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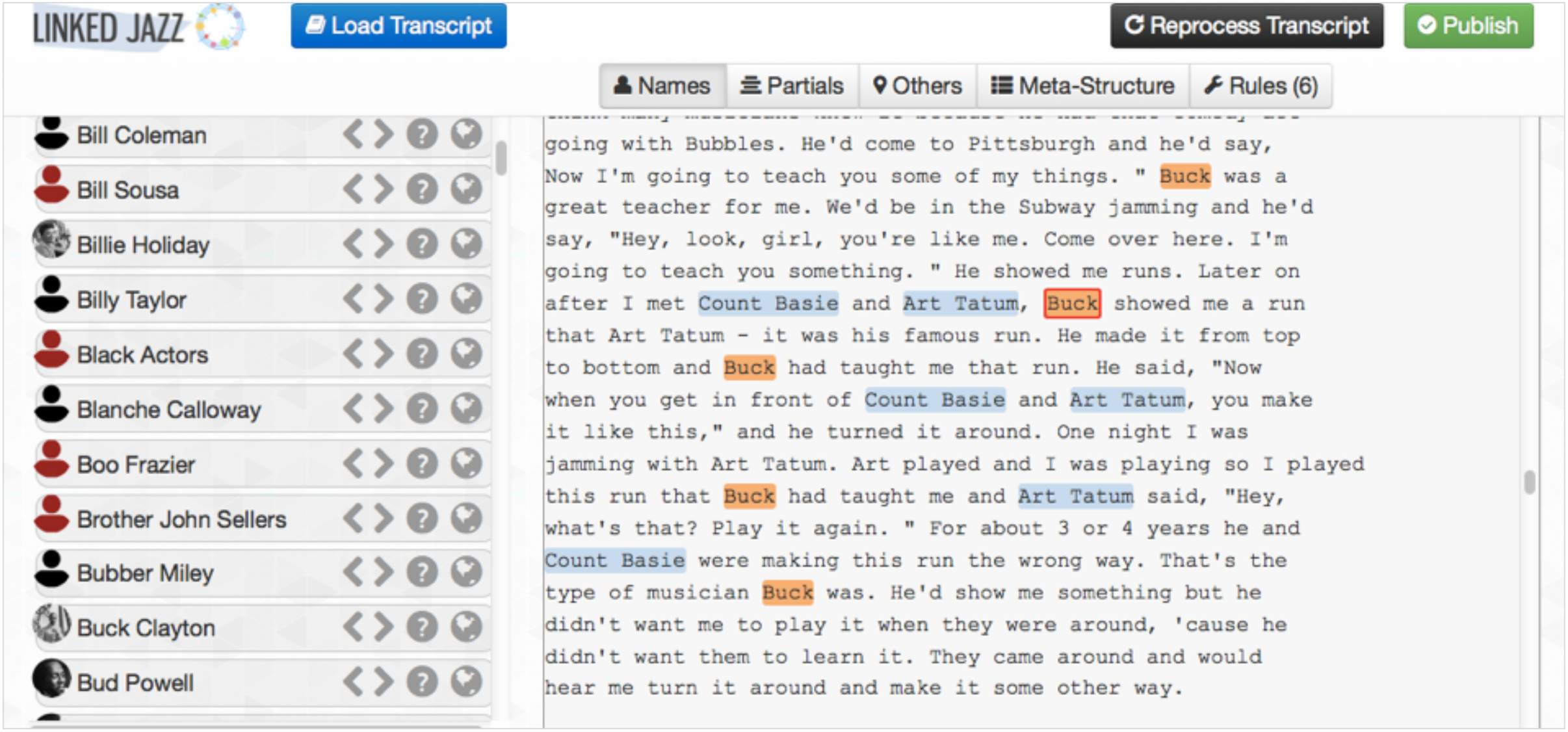

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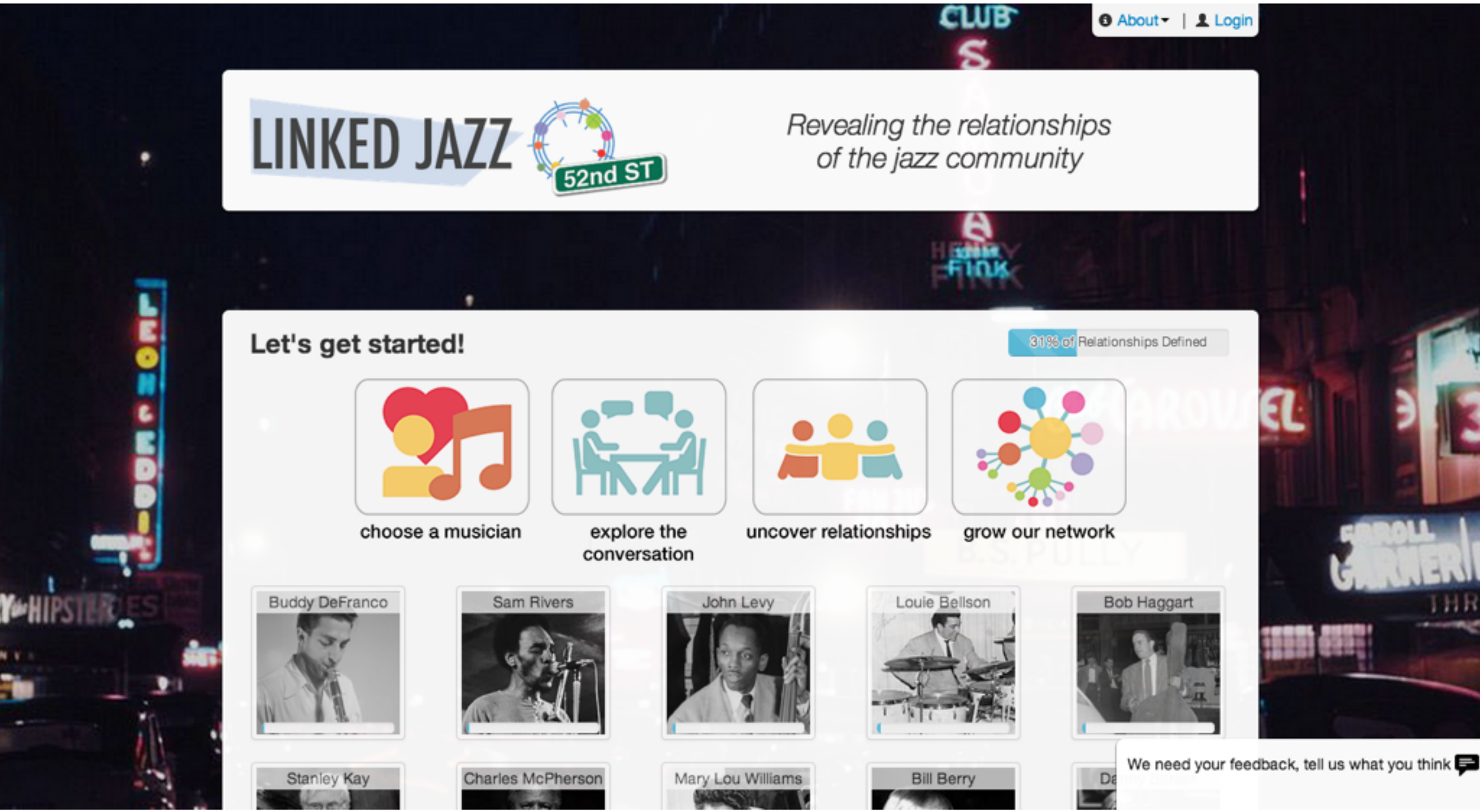
52nd Street Crowdsourcing Tool



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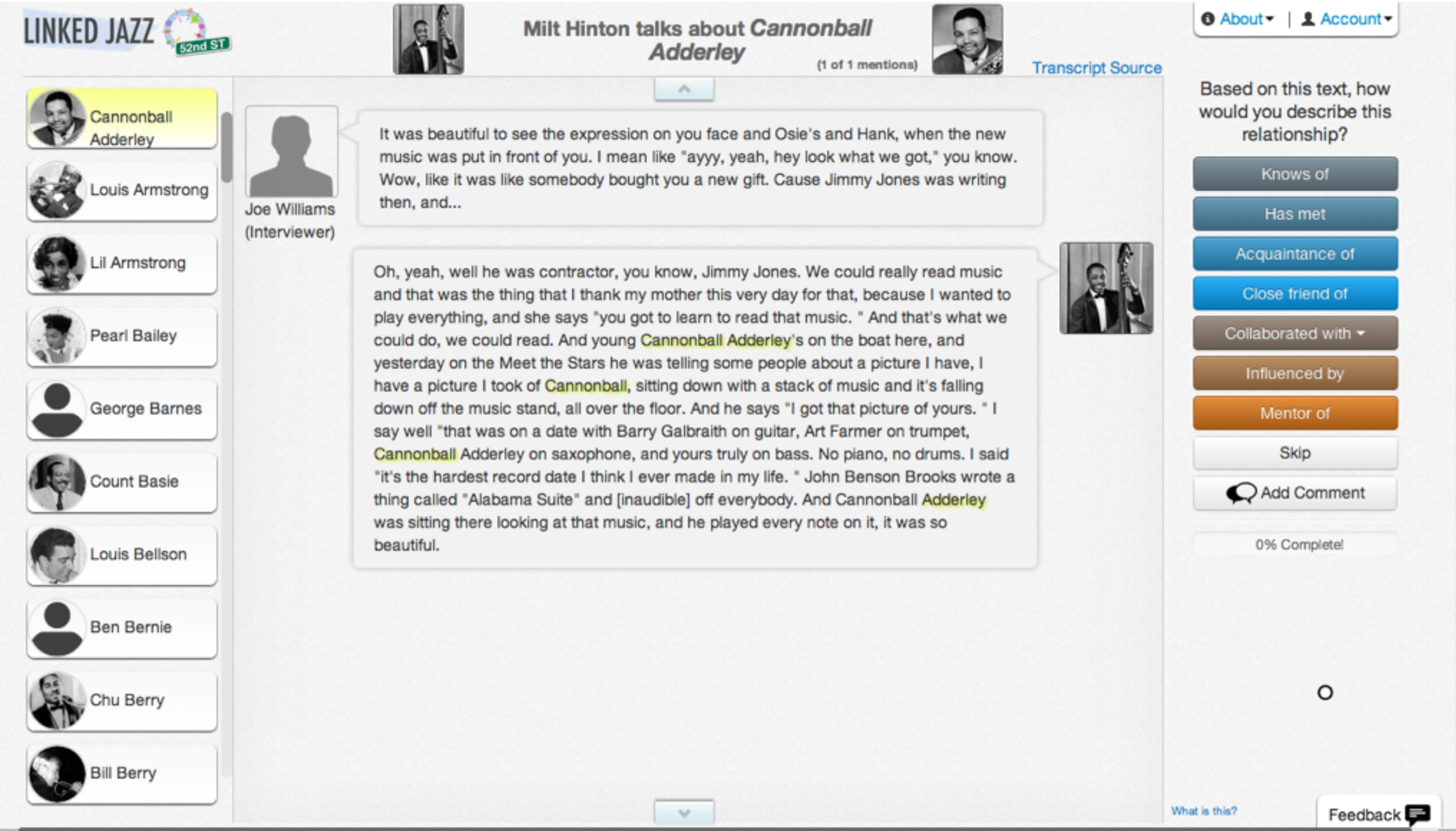
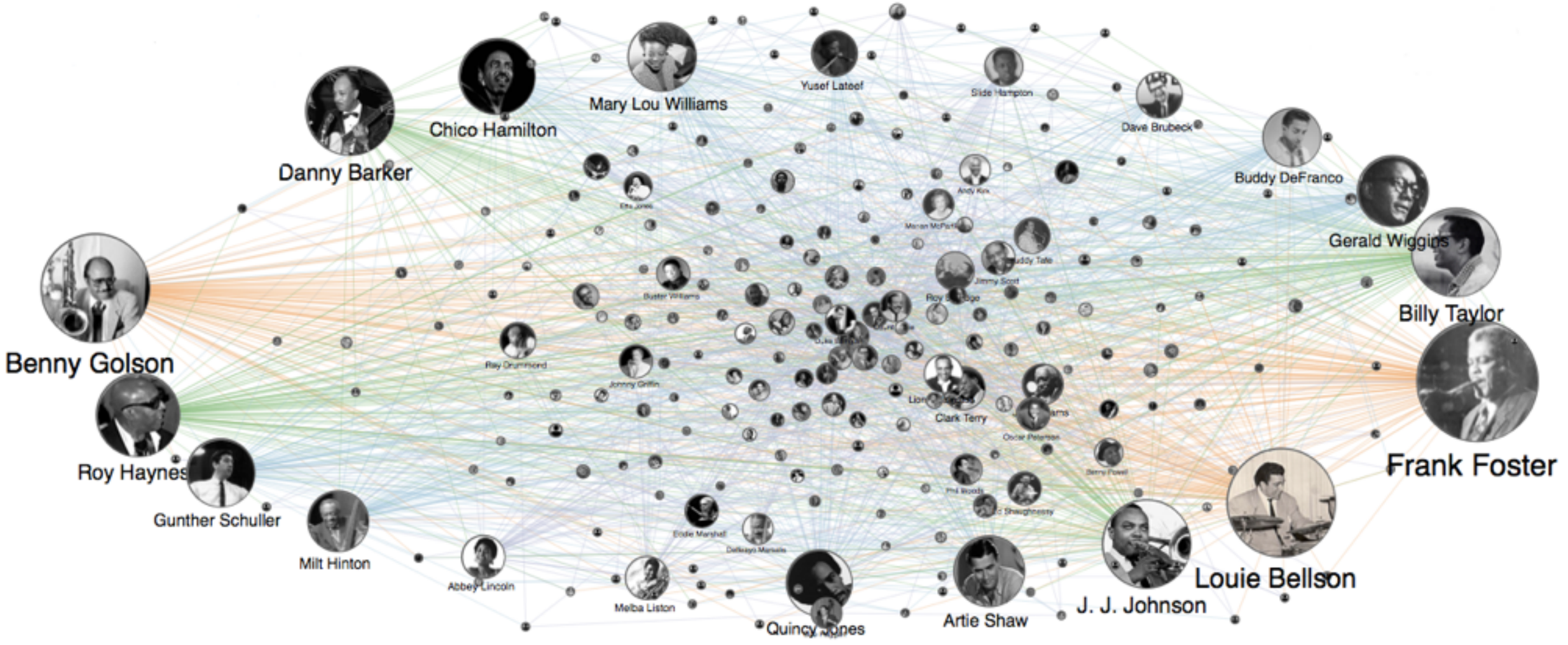


LINKED JAZZ

transcript source: http://www.hamilton.edu/jazzarchive/interviews

Network Visualization Tool



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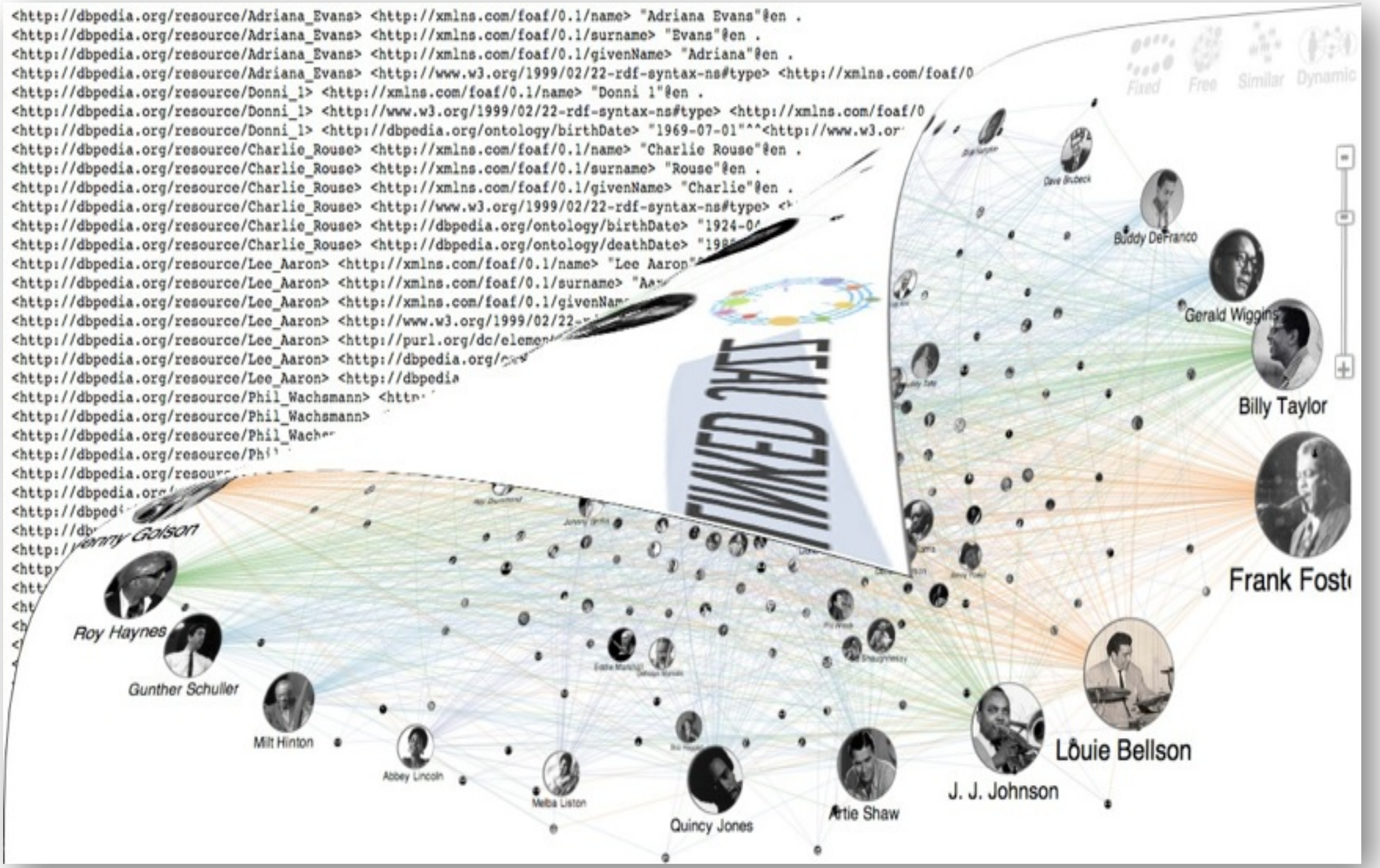

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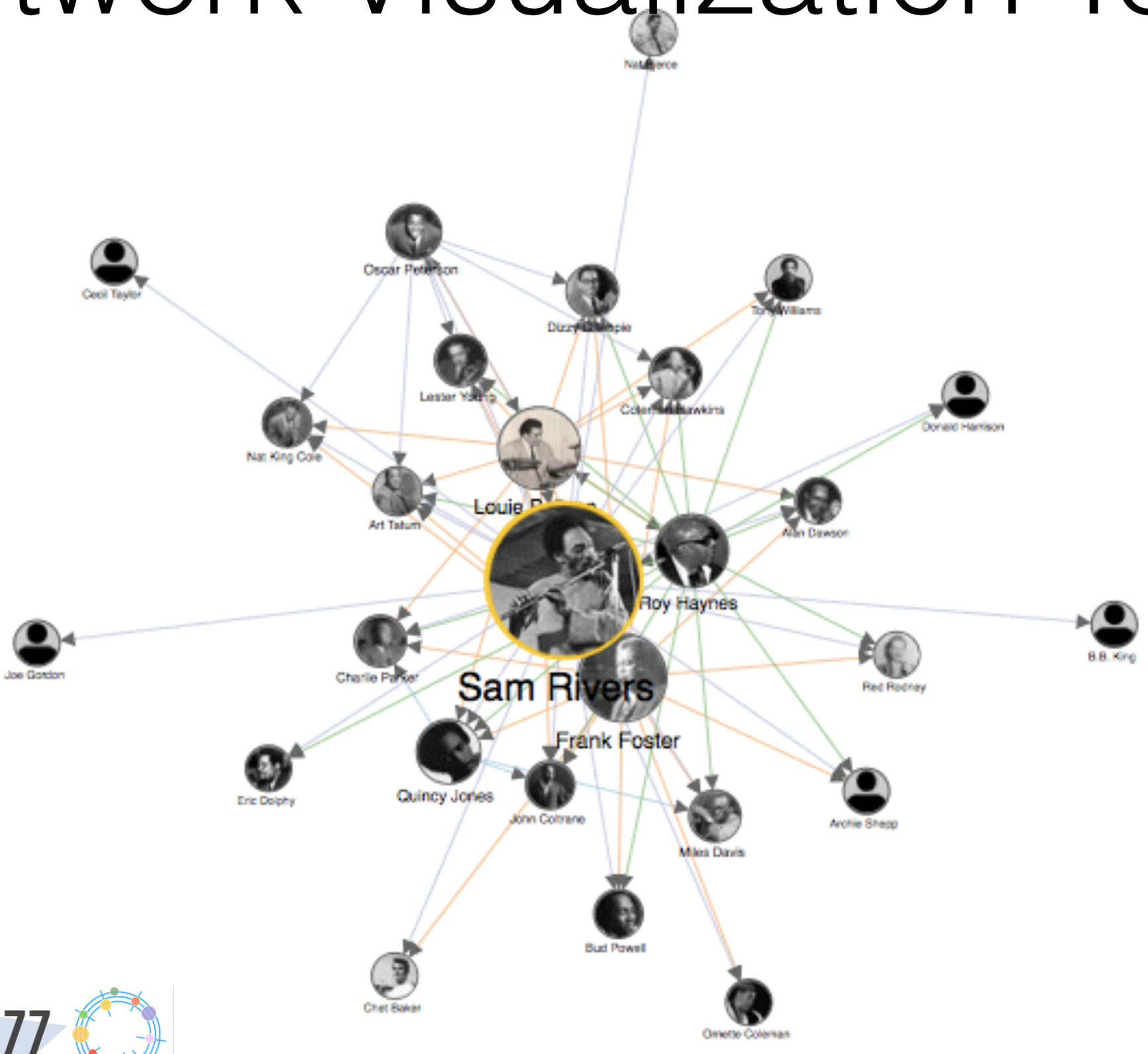

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What's Next?

- Women in Jazz
- Rutgers Women in Jazz project
- Wikipedia Edit-a-Thons

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What's Next?

- Women in Jazz
- Tulane University Hogan Jazz Archive Photo Collection

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Mahalia Jackson

View Description

Download | Print

What's Next?

- Women in Jazz
- Tulane University Hogan Jazz Archive Photo Collection
- Freely available jazz discographies: Columbia University's J-DISC

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God Bless The Child

Song:
God Bless the Child

Playtime: 2:33

Session Information

Session: Count Basie August 31, 1950
Order: 2
Track Production Status: Master

Session Personnel *(complete session personnel)*

Clark Terry (trumpet)
Buddy DeFranco (clarinet)
Wardell Gray (tenor saxophone)
Count Basie (piano)
Freddie Green (guitar)
Jimmy Lewis (bass)
Gus Johnson (drums)

Track Personnel Changes *(variances from session personnel)*

Billie Holiday (vocal)

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- Mashups with other LOD sets — Musicbrainz, WhoSampled.com, etc.

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- Archival metadata from EAD finding aids
- Redesign tools based on user feedback

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You Can Help

- Explore our network maps and our tools at linkedjazz.org

- Use our 52nd Street Crowdsourcing Tool and give us feedback

- Use our data: linkedjazz.org/api

- Suggest other openly available data we could mash up with our dataset

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Thanks for listening!

Visit linkedjazz.org for more information.

Many thanks to Dr. Pattuelli and the entire Linked Jazz team.

Bill Levay | wjlevay@gmail.com | wjlevay.net

References

- Pattuelli, M. C., et al. (2013). Crafting linked open data for cultural heritage: mapping and curation tools for the Linked Jazz project. *Code4Lib, 21*. http://journal.code4lib.org/articles/8670
- Pattuelli, M. C., et al. (2013). Linked Jazz 52nd Street: a LOD crowdsourcing tool to reveal connections among jazz artists. *Digital Humanities 2013*, July 16-19, 2013, Lincoln, Nebraska, USA.

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Image Credits

- John Coltrane http://upload.wikimedia.org/wikipedia/commons/6/66/John_Coltrane_1963.jpg

- “A Love Supreme” label http://www.vinylrecords.ch/J/JO/John/John-Coltrane/Love/john-coltrane-love-supreme.html

- Linked Jazz screenshots http://linkedjazz.org