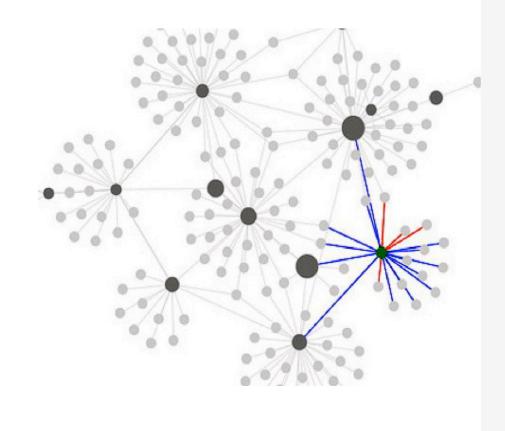
The Linked Jazz Project

Cristina Pattuelli
School of Information and
Library Science
Pratt Institute, New York





Discovering Jazz History through Linked Open Data



OVERVIEW

Linked Open Data (LOD)

Linked Jazz as a case study

Development methods and tools

Current work & future directions

Semantic Web → Web of Data

Web technology to publish and connect structured data on the web.

The web as a global unified management platform and discovery space.

The web as a global unified management platform and discovery space.



Experimenting with the application of Linked Open Data technology to digital archives of jazz history.







A Great Day in Harlem

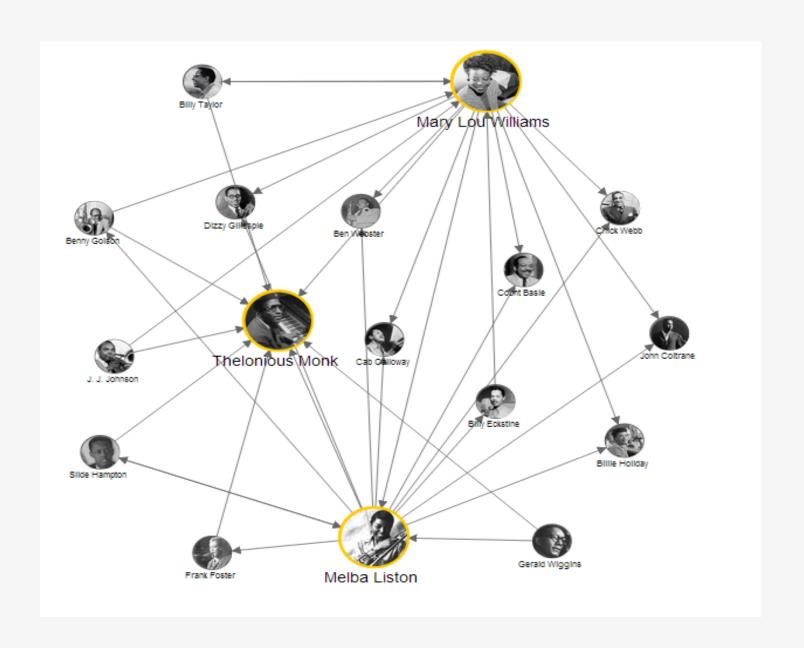


Red Allen, Buster Bailey, Count Basie, Emmett Berry, Art Blakey, Lawrence Brown, Scoville Browne, Buck Clayton, Bill Crump, Vic Dickenson, Roy Eldridge, Art Farmer, Bud Freeman, Dizzy Gillespie, Tyree Glenn, Benny Golson, Sonny Greer, Johnny Griffin, Gigi Gryce, Coleman Hawkins, J.C. Heard, Jay C. Higginbotham, Milt Hinton, Chubby Jackson, Hilton Jefferson, Osie Johnson, Hank Jones, Jo Jones, Jimmy Jones, Taft Jordan, Max Kaminsky, Gene Krupa, Eddie Locke, Marian McPartland, Charles Mingus, Miff Mole, Thelonious Monk, Gerry Mulligan, Oscar Pettiford, Rudy Powell, Luckey Roberts, Sonny Rollins, Jimmy Rushing, Pee Wee Russell, Sahib Shihab, Horace Silver, Zutty Singleton, Stuff Smith, Rex Stewart, Maxine Sullivan, Joe Thomas, Wilbur Ware, Dickie Wells, George Wettling, Ernie Wilkins, Mary Lou Williams, Lester Young

A Great Day in Harlem



Red Allen, Buster Bailey, Count Basie, Emmett Berry, Art Blakey, Lawrence Brown, Scoville Browne, Buck Clayton, Bill Crump, Vic Dickenson, Roy Eldridge, Art Farmer, Bud Freeman, Dizzy Gillespie, Tyree Glenn, Benny Golson, Sonny Greer, Johnny Griffin, Gigi Gryce, Coleman Hawkins, J.C. Heard, Jay C. Higginbotham, Milt Hinton, Chubby Jackson, Hilton Jefferson, Osie Johnson, Hank Jones, Jo Jones, Jimmy Jones, Taft Jordan, Max Kaminsky, Gene Krupa, Eddie Locke, Marian McPartland, Charles Mingus, Miff Mole, Thelonious Monk, Gerry Mulligan, Oscar Pettiford, Rudy Powell, Luckey Roberts, Sonny Rollins, Jimmy Rushing, Pee Wee Russell, Sahib Shihab, Horace Silver, Zutty Singleton, Stuff Smith, Rex Stewart, Maxine Sullivan, Joe Thomas, Wilbur Ware, Dickie Wells, George Wettling, Ernie Wilkins, Mary Lou Williams, Lester Young



PROJECT GOALS

To provide a service useful to researchers for analyzing the history of jazz and offer a new perspective on the interpretation of archival content.

To expose archival data to the web in the form of linked open data that would facilitate cross-domain interlinking and increase visibility of cultural digital content.

ALL IFS ANDS OR BUTS CONNECTED BY GREEN LINES / ST/ LIVES

mixed Catentative feelings. They have never quite been able totally to commit themselves on Neguchi's work—possibly because of the wide stylistic spectrum, the more likely because they were unable to read within its variance a basic stability of progression.

"I'm not really interested in doing sculptures, as such."

Nogachi himself districts the question of style. 'I don't think I have any style,' he says. 'I'm suspecious of the shocks business of style because—again it's a force of sinhibition—the more I in me, the new me of this new time. To change is to invent, to create answ. That is why I applicate change. There is an unconscious like in my work—it's manyolfable. Still, this line has not always been recognized, and I wish I were recognized more for what I have really tried to do. You see, I'm not couly interested in doing sculptures, as such I do there, of course, the it's the world I look for, there where excepting a sculpture, but in looking for it, I try to do something about it. I want it to be the way it ought to be—the way it was I think there, an awful lot of clutter you have to get through in order to find that simple truth.

"I don't know that I believe in programmatic art. Large goals-emerge only with fine. I think In the meathing you so from one thing to the mext, and you do the best you can. It's a guestion of development and transformation—that's the interesting thing, that the interesting thing, that the large way it makes now said to see young artists who become great tyling overright.

"They harry not be a raike a whole series of works to prove they are the proposition of the within new revolutionary style. Then they are stuck with it. The burn they thing is not the establishment of your bearactical status; it's your development, that's important upon I they arising torget that.

"But cenerally, I chink sculpture today is leading in the right direction. That is, where it connects with late. Without being too prideful, I would say I was emselved at this a long time say. At one point, for example, when I became distillusioned about my function in the art world, I decided I would work in some other fields (but still as an artist. And so I did furniture and impose the that.

It was not that I was being less of an artist, by I felt I couldn't function of take my living, in the then accepted art world Now the art world has become much free resource alle to do things with lights find with all surts of though that have a direct confact with the life of perions. Tooks artists are able to arting melanocks into the art galleries—to exhibit them—and call it art. In my day, that was quite impossible to do."

What does Nogueli think of the work of young artists now showing in the galleries? Has he, in some tangible though unconscious way, influenced the new generation of semptors?

I think that current manifestations in art—pop and op, kin stier to life as we live it today It's slike rock and roll, a mediann fee popular consemption. The the minimal sculptors, it access to me, are involved in an inflation of art, playing with scale. It's not really tied to the world. It's a kind of separate thing—the long that the minimal properties of the consequence of the consequenc

closer to the world, I think these artists are being esoteric this becomes a controllection. Perhaps they are forced to do this by the public. I gives most people won't accept art unless it's labeled Art. 66 that's a sad thing.

"I don't think I've influenced the current course of sculpture-excepting very indirectly on I've influenced artists, it might have been through my work in the flienter—through my sets, because these were seen. In my sets I always tried out things I had been thinking about for other purposes. My sets are not beparate from what I do, to general, They are a kind of exposition in space—so that thany of the minimal of structuralist things that you see now are very similar to the Purpe I did in my sets. Very similar, but with a different purpos."

"I am a practical artist."

"The whole environmental beat—environmental scalphire, as such — is very close to my theatrical concepts. But I don't consider maself a high price of any divergence of primary structures. I was not making sets as an allowed I am a practical artist."

Because Neguchi is a genetical artist he is particularly unhappy when part permitted to function as one. While is has produced any number of public works—from gardiens to major outdoor sculptures—in heavy parts of the toolid, he has yet for realize one of his most trevert ambitions—to create a playground for New York.

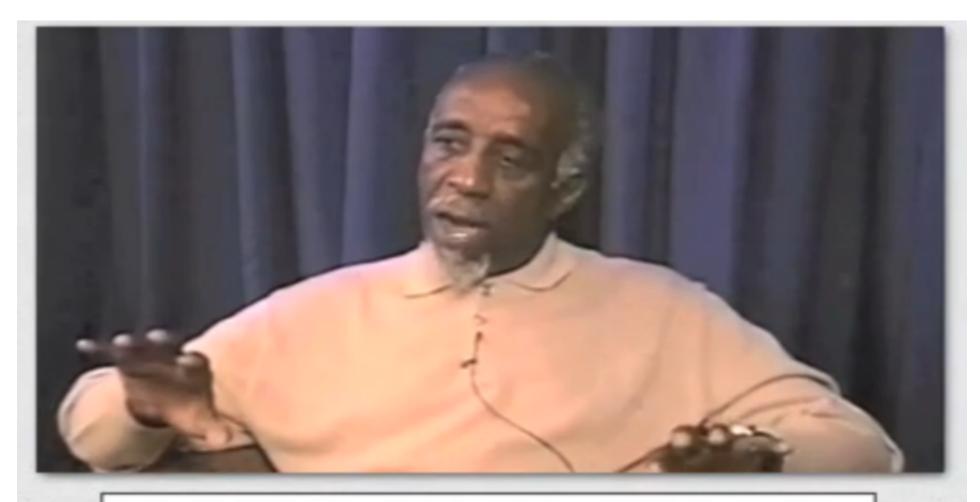
Negreth and phygrounds are a drame all their own and it is central to his present sense of disappicintment. I have been thinking about playpoonds wire 1903. The says, "Perhaps my thinking about then has been an Illusion; perhaps I seek a kind of wish fulfillment. I know now that it's impossible for me to do a playpound in New York. Of course, in the case of Robert Mosey. I had always assumed he dight like modern art—it seemed a good reason for his not asking me—and this reason supported me all these years. I could always fight the dragon, because I knew which the dragon was.

"I seet Mr. Moves in 1933, Ad we had quite a session. I remember asking him, at one point, why be dufe't at least color the play grounds in the park. He said, 'How Chrysol surgest such a things! We have over five hundred playgrounds (and pr.) we started coloring them we'd sto broke in no time. They have to be a dirty brown, 'Adultan't the waysit was. So you give up, 'and for a long time I give op.

Then it happened that the parks commissioner of Hawaii angle feel I do some playground equipment there—that was in 1939, and I clin for them he doed, and nothing could be done about the equipment. But I showed it in dulies Levy's gallery, the Julies got held of some parks departing at george here, boping to interest them.

The they thought it was all very dangerous. Anything that wasn't sandard was dangerous, anything that wasn't tried was dangerous. They said New York City, could not afford to do anything that hadn't been done before, because anything happened, there'd by forgile inventes, et retera.

"Then, in the forties, I was finally asked to do a playground for Central Park. 19 then, very conveniently, the war scare was such that the parks people said, We can't do that now, we have to build bomb shelters instead. And that ended that, Sol LeWitt, All ifs ands or buts connected by green, 1973



326 MR: That's great. Tell me about - I've been waiting to get to the fifteen years you spent at

327 Ryan's?

328 EL: Oh yes.

329 MR: Wow. That's a long time for a ...

330 EL: Well Roy Eldridge was my — well let's see — he was my conscience.

331 MR: Yeah?

332 EL: Well he was like my — I don't know what to call him. I had a great relationship with him man, but both of the relationships were very different.

Oral Histories

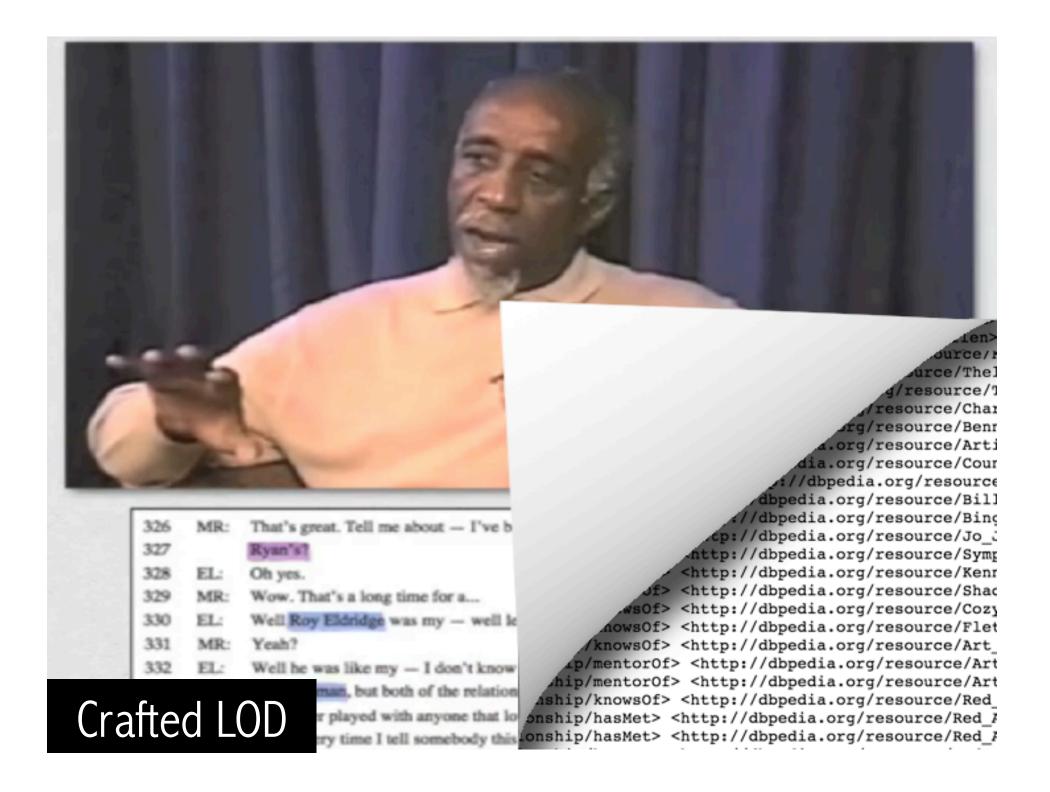
er played with anyone that loved to play as much as him. Never. And my greatest ery time I tell somebody this, they always, they love it, but Γ'm going to tell this





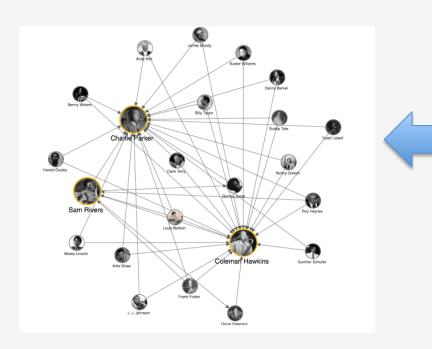








Identify the relationships among jazz artists and represent them as Linked Open Data.



From The Nathaniel C. Standifer Video Archive of Oral History: Black American Musicians Located in the African American Music Collection at the University of Michigan

http://www.umich.edu/~afroammu/standifer/rivers.html

Sam Rivers

D = Darryl Duncan R = Sam Rivers

D Good afternoon, here we are. This is an interview for the Afro-American music collection. My name is Darryl Duncan and I'm interviewing Mr. Sam Rivers. Today is March 26, 1988.

Mr. Sam Rivers, you have been a saxophonist of note and it's really a pleasure for me to be here talking with you. R Thank you very much. It's a pleasure to be here. D Especially from my musical perspective. First, could you tell us something about your musical training and how you got started as a saxophonist? R I got started as a saxophonist rather late, but the musical training goes back to practically birth. My father and mother are both musicians. My grandfather and his two sisters were musicians. Just about all relatives play some sort of musical instrument.

D You come from a musical family- R Yes, I would say. My mother is a music teacher and I got started studying the piano around four or five something like that in Chicago. I was born in Alvino, Oklahoma. My father and mother were traveling - we were on tour with the Silver Tone Quartet. My father was the first tenor and my mother was the accompanist; so I was born on the road and they were out of Chicago so Alvino, Oklahoma which it say on the birth certificate was a stop on a tour. So, we lived in Chicago. My mother took a job in Shorter College in north Little Rock when I was seven to maybe ten so I came up on the campus and went to Catholic school in Little Rock. D I've always read on liner notes and things like that that Sam Rivers is from Boston. When did you end up in Boston and what would you say about Boston that could be called a brand of your musical identity? The Boston kind of sound? R Boston was after I had completed the military service. I was in the Navy for WWII and after that I went to Boston to study at the Conservatory. At the time I think it was a fortunate choice - I had a choice between New York or Boston and I chose Boston to further my musical growth, but I was already a musician before I went into the Navy. I wasn't in the band and there were some other trades I liked. I liked navigating and I also went to a motion picture editing school and edited films for the Navy. The musical career was already in progress so I decided to go to Boston to study more. Fortunately at that time there were quite a few musicians that went on to greater things that we were all there together. Jackie Byard, Gi Gi Grice, Quincy Jones, Alan Dawson, Nat Pierce, Charlie Mariano, and many more that I'm sure I'm missing. Frank Kidd, an alto player that was very advanced for his time. I remember his sounding like Eric Dolphy in the late forties. Everyone was laughing, of course, and scratching their chins. I remember these kinds of situations. There were always these kinds of musicians around that went past the accepted bounds. When they did, they weren't accepted as all there or a bit eccentric but never really taken seriously until the late fifties like Arnette Coleman.

D So would you say that these types of influences early in your career can be accounted for as the heavy influence on your progressive style - your forward looking style? R I think all the influences combined - we're all sponges you know if we're open enough, people that are not open get it anyway, we don't remember where we got it from but we

CRAFTING & PROTOTYPING

- Data Preparation
- Data Analysis
- Data Curation
- Data Visualization

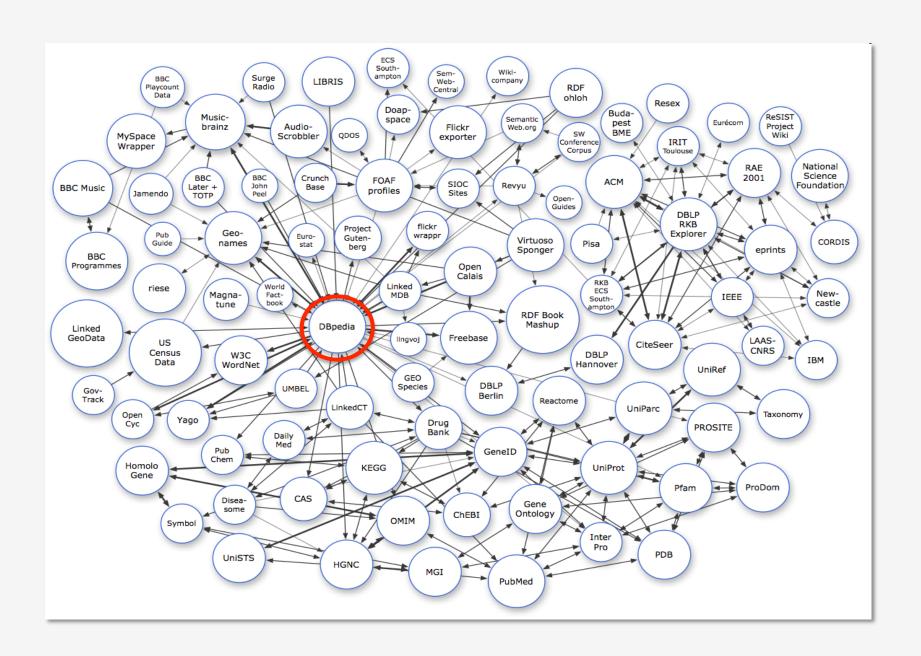
- Name Vocabulary
- Mapping and Curator Tool
- Transcript Analyzer
- Visualizer
- Crowdsourcing Tool

Jazz Name Vocabulary

Personal name vocabulary in the form of RDF statements including the artist's name paired with a Uniform Resource Identifier (URI).



http://dbpedia.org/resource/Thelonious_Monk
<http://xmlns.com/foaf/0.1/name>
"Thelonious Monk"



DEALING WITH MESSINESS

Data curation to reduce ambiguity, inconsistencies and incompleteness of data.

E.g., named entity resolution and enrichment.

1 Mapping and Curation Tool

					Many (1,256)	None (1,089)	Verified (13)	Deleted(1)	Q Search
Robert Timothy Wilkins	1896 - 1987		AF P L		Ma	ry Lou William	ns		
Big Joe Williams	1903 - 1982	(1) III	VI O L			F/	Mary Lou William American jazz pia	s (May 8, 1910 - Ma nist, composer, and f compositions and	arranger. William
Claude Williams	1908 - 2004		VI O L				recorded more th	an one hundred reco ams wrote and arra	ords (in 78, 45, and
Fess Williams	1894 - 1975		VI O L				and she was frier	luke Ellington and B id, mentor, and tead ker, Miles Davis, Ta	her to Thelonious
Harold Ivory Jr' William	s 1949 - 2010		VI O L		N	Gillespie, and many others. LIBRARY OF CONGRESS http://id.loc.gov/authorities/names/n92025133			
Joe Williams	1918 - 1999		VI ? L						
Johnny Williams	1905 - 1984		VI O L	Î	altI	abel Scruggs, Ma Label Williams,	ary Elfrieda, 19	10-1981	
Mary Lou Williams	1910 - 1981		VI O L	Î					
Paul Williams	1915 - 2002		VI O L	Î					
Richard Williams	1931 - 1985		VI O L	Î					
Robert Pete Williams	1914 - 1980		VI O	Î					
Skinny Williams	1916 - 1994	A9 11	VIOA	m					

INTEGRATION WITH NAME VARIANTS

```
<skos:inScheme rdf:resource="http://viaf.org/</pre>
authorityScheme/LC"/>
     <skos:prefLabel>Ellington, Duke, 1899-1974
   </skos:prefLabel>
     <skos:altLabel>Ellington, Edward Kennedy, 1899-1974
   </skos:altLabel>
   <skos:altLabel>Ellington, Diuk, 1899-1974
   <skos:altLabel>
     <skos:altLabel>Turner, Joe, 1899-1974</skos:altLabel>
   <skos:altLabel>Greer, Sonny, 1899-1974</skos:altLabel>
     <skos:altLabel>Ellington, Obie Duke, 1889-1974
   </skos:altLabel>
     <skos:altLabel>Duke, Obie, 1889-1974</skos:altLabel>
<skos:exactMatch rdf:resource="http://id.loc.gov/</pre>
authorities/names/n50080187"/>
```

2 Transcript Analyzer





"Later on after I met Count Basie and Art Tatum, Buck showed me a run that Art Tatum - it was his famous run. He made it from top to bottom and Buck had taught me that run." say, "Hey, look, girl, you're like me. Come over here. I'm going to teach you something. "He showed me runs. Later on after I met Count Basie and Art Tatum, Buck showed me a run that Art Tatum - it was his famous run. He made it from top to bottom and Buck had taught me that run. He said, "Now when you get in front of Count Basie and Art Tatum, you make it like this," and he turned it around. One night I was jamming with Art Tatum. Art played and I was playing so I played this run that Buck had taught me and Art Tatum said, "Hey, what's that? Play it again. "For about 3 or 4 years he and Count Basie were making this run the wrong way. That's the type of musician Buck was. He'd show me something but he didn't want me to play it when they were around, 'cause he

LINKED JAZZ 🛴

Bill Coleman

Bill Sousa

Billie Holiday

Billy Taylor

Black Actors

Blanche Calloway

Boo Frazier

Brother John Sellers

going to teach you something. "He showed me runs. Later on after I met Count Basie and Art Tatum, Buck showed me a run that Art Tatum - it was his famous run. He made it from top to bottom and Buck had taught me that run. He said, "Now when you get in front of Count Basie and Art Tatum, you make it like this," and he turned it around. One night I was jamming with Art Tatum. Art played and I was playing so I played this run that Buck had taught me and Art Tatum said, "Hey, what's that? Play it again. "For about 3 or 4 years he and Count Basie were making this run the wrong way. That's the

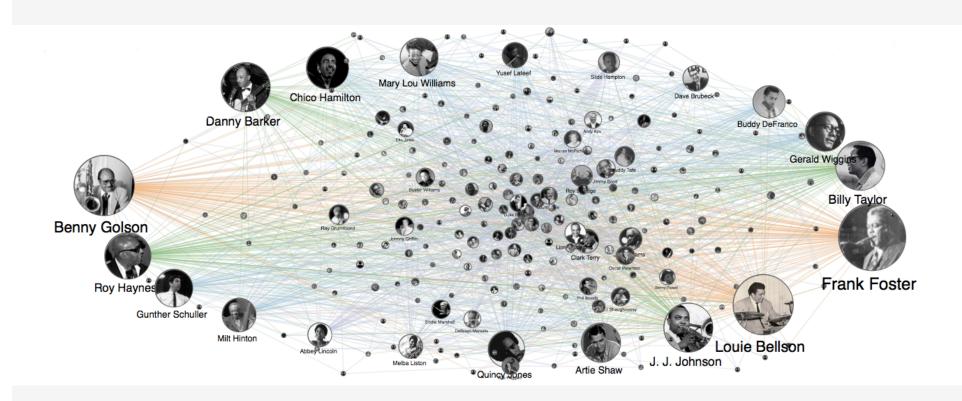
Buck Clayton

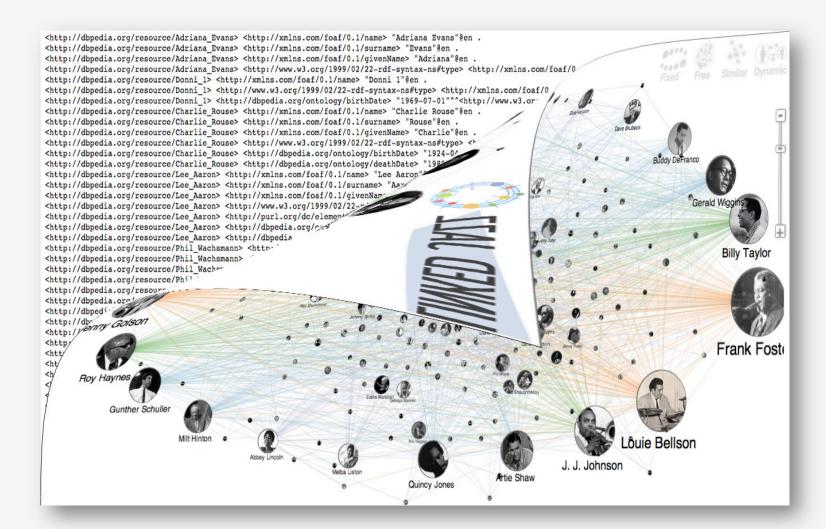
Bud Powell

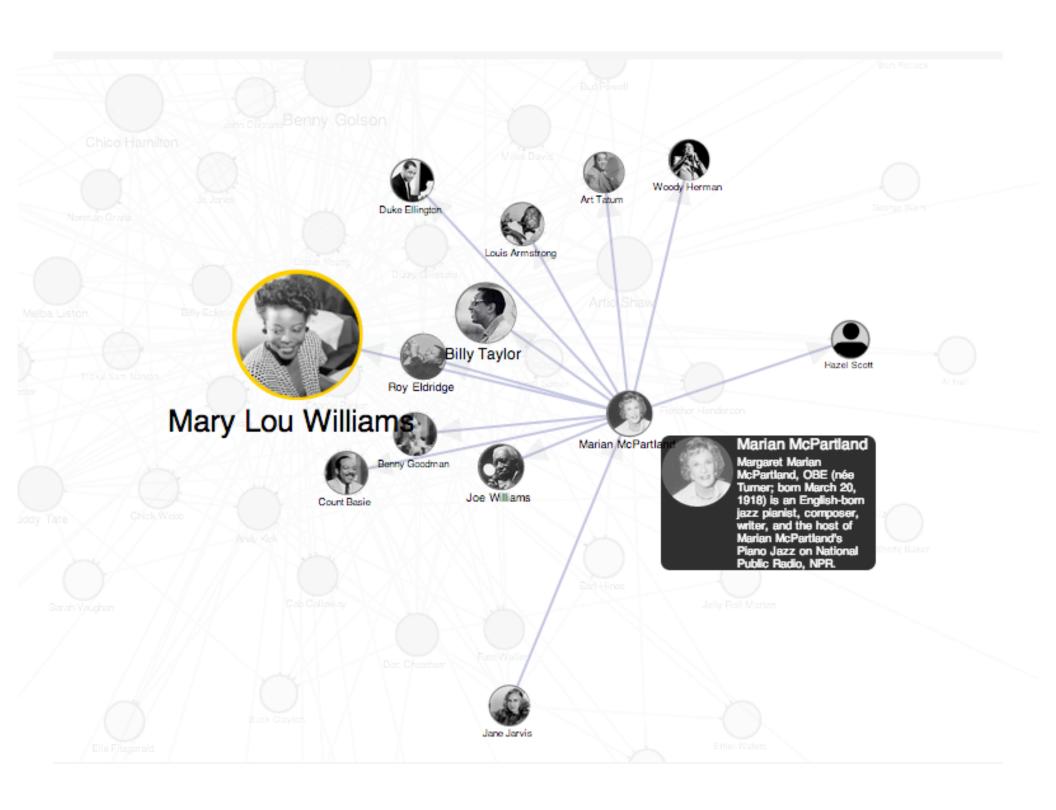
e of musician Buck was. He'd show me something but he n't want me to play it when they were around, 'cause he

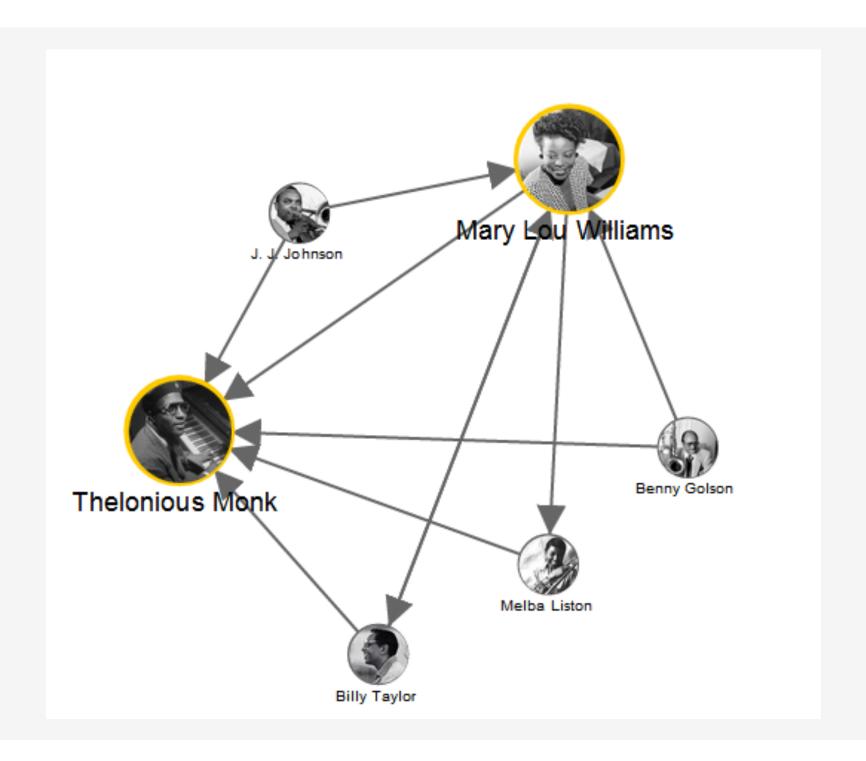
hear me turn it around and make it some other way.

3 Interactive Visualization Tool



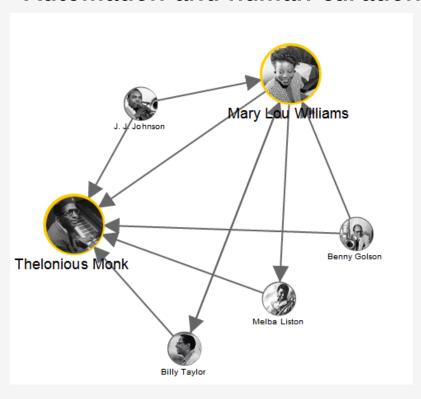






Machine + Human-Driven Approach

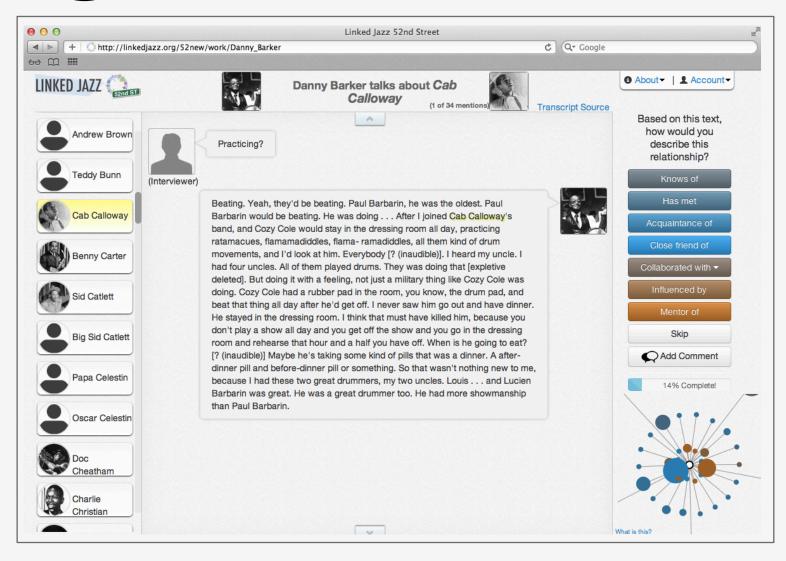
Automation and human curation



Automated techniques used to generate a unspecified social network.

Crowdsourcing approach to help reliably identify the nature of the personal and professional relationships between people.

4 Crowdsourcing Tool





LINKED JAZZ 52nd ST

Revealing the relationships of the jazz community















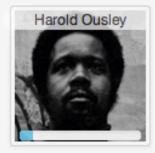




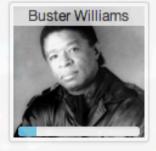


















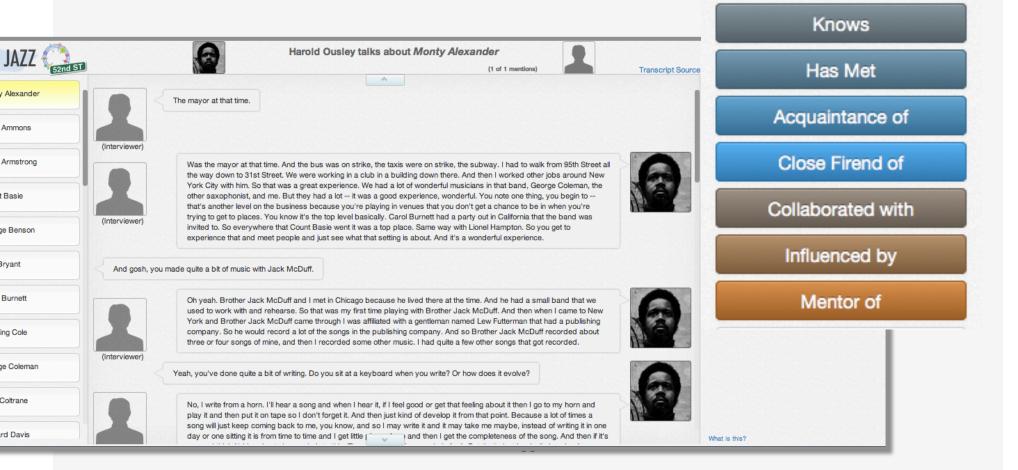


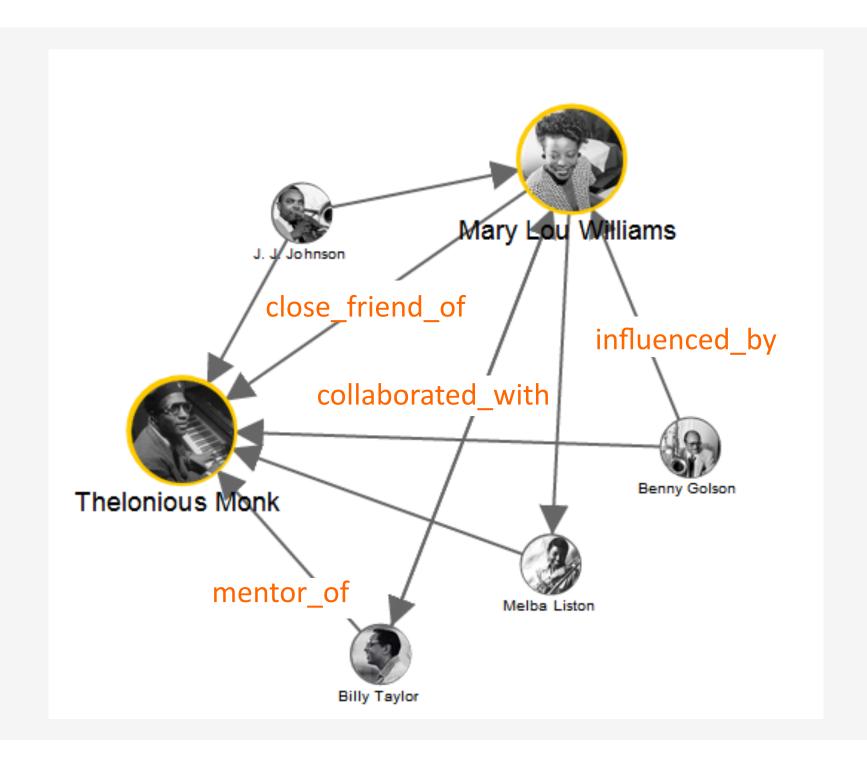






LINKED JAZZ 52ND STREET



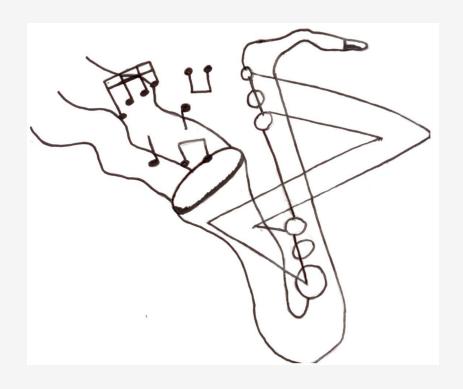


ONGOING AND FUTURE WORK

LINKING NETWORKS OF **PEOPLE** TO NETWORKS OF **INFORMATION**.

- •Mashups with external datasets (bibliographic and domain specific, e.g., discographies)
- •BEBOP BOX for contextual data
- •Wikipedia Edit-a-thons
- Educational bottega

All tools are released as open source projects



Mash Up Our Data!

LinkedJazz.org/api



THANK YOU Questions?



Linked Jazz Team

Cristina Pattuelli mpattuel@pratt.edu @cristinapattuel

