

# **Usability Report**

May 23, 2013

# **Executive Summary**

The Pratt SILS UX team conducted a usability study of the Linked Jazz 52<sup>nd</sup> Street website to evaluate user satisfaction and understanding. A user test was designed and conducted with ten participants to assess the site's overall usability and functionality.

Overall, participants were generally satisfied with the site and thought that it offered a pleasant experience as a whole. However, many participants struggled with both the functionality of and reasoning behind the relationship assignment tool. Some participants were unsure of the contribution they were making and how their relationship assignments were being recorded.

Based on the participants' points of confusion and feedback, we developed eight recommendations that we feel would greatly increase the usability of the website:

- 1. Convert homepage icons to clickable buttons
- 2. Add separate login and account creation screens
- 3. Clean up and add more controls to interface tutorial
- 4. Tweak the presentation of transcript snippets
- 5. Emphasize and clarify the "transcript source" link
- 6. Improve the relationship assignment process
- 7. Add a more visible indication of task completion
- 8. Communicate the value and purpose more effectively

This report contains further elaboration on these recommendations as well as summaries of the issues that they stem from. We believe that implementing these recommendations will not only make the site more functional, but will also increase users' understanding of the website's purpose and goals.

# **Table of Contents**

EXECUTIVE SUMMARY	2
INTRODUCTION	4
METHODOLOGY	5
PARTICIPANTS	5
RECRUITMENT	5
DESCRIPTION	5
STUDY PROCEDURE	6
Pre-Test Questionnaire	6
AFFECT GRID	6
Post-Test Questionnaire	6
TASKS	7
TASK 1	7
TASK 2	7
TASK 3	7
FINDINGS & RECOMMENDATIONS	8
OVERALL FINDINGS	8
RECOMMENDATION #1: CONVERT HOMEPAGE ICONS TO CLICKABLE BUTTONS	10
RECOMMENDATION #2: ADD SEPARATE LOGIN AND ACCOUNT CREATION SCREENS	11
RECOMMENDATION #3: CLEAN UP AND ADD MORE CONTROLS TO INTERFACE TUTORIAL	13
RECOMMENDATION #4: TWEAK THE PRESENTATION OF TRANSCRIPT SNIPPETS	15
RECOMMENDATION #5: EMPHASIZE AND CLARIFY THE "TRANSCRIPT SOURCE" LINK	16
RECOMMENDATION #6: IMPROVE THE RELATIONSHIP ASSIGNMENT PROCESS	17
RECOMMENDATION #7: ADD A MORE VISIBLE INDICATION OF TASK COMPLETION	19
RECOMMENDATION #8: COMMUNICATE THE VALUE AND PURPOSE MORE EFFECTIVELY	21
CONCLUSION	22
REFERENCES	23
APPENDICES	24
PARTICIPANT RECRUITMENT PROFILES	24
PARTICIPANT SCREENING QUESTIONNAIRE	25
Pre-Test Questionnaire	26
POST-TEST QUESTIONNAIRE	28

## Introduction

Linked Jazz 52<sup>nd</sup> Street is a new web-based crowd-sourcing tool that invites users to find connections between different jazz musicians based on short interview excerpts. The ultimate goal of the Linked Jazz project is to help the public discover more about jazz's important cultural heritage and highlight meaningful relationships between jazz musicians through the examination of historical data and documents.

With the cooperation and guidance of the Linked Jazz 52nd Street website staff, a team of graduate students from Pratt Institute's School of Information and Library Science (hereto called the Pratt SILS UX Team) designed a usability study with the goal of identifying potential areas of improvement for the website.

The study was conducted to ensure the Linked Jazz 52<sup>nd</sup> Street website was interesting and engaging for all visitors, as well as to assess the website's current design, functionally and usability. Our goal was to elicit feedback from our usability test participants that would help develop new insights into the website's aesthetic appearance, the usability of the web tool's interface and the general ease of assigning relationships between the musicians. The rest of this report will include detailed information about the Pratt SILS UX Team's usability test methodology, findings and recommendations, conclusion and references.

# Methodology

## **Participants**

#### Recruitment

The following groups were identified as representative of possible users of the Linked Jazz 52nd Street websites: music lovers, music librarians (or students), professional or non-professional musicians, and/or music curators. Since the aim of the study was to provide preliminary feedback on the interface, our participant pool was mainly a convenience sample (i.e., members of the Pratt SILS community or close friends/colleagues who fit some of the criteria listed above).

The team members emailed or talked with individuals to gauge their interest in participating in the project. If someone was interested he or she was asked to fill out a screening questionnaire (see appendix), which asked—among other things—questions about their profession, interest in jazz music, and familiarity with the web. Each team member was able to recruit at least two participants and we conducted a total of ten usability tests over a two-week period. Participants were given \$10 Starbucks gift cards as compensation.

#### Description

Data from our screening and pre-test questionnaires showed that participants were generally young, highly educated and technologically savvy. Nine participants were between the ages of 18 and 34 (the remaining participant was between 35 and 54 years of age). In terms of education, all ten participants had earned at least a bachelor's degree and nine participants had completed at least some graduate school, with five having already earned a master's degree. All ten participants reported being familiar with web applications, frequently browsing the Internet, and frequently posting updates on social media. Seven participants reported that they contributed to an online community at least "sometimes" and nine participants said that they had "moderate" or "heavy" interest in crowdsourcing projects and websites.

Participants also represented a wide range of interest in and knowledge of jazz, with nine participants at least moderately interested in jazz music. In terms of jazz knowledge, three participants described themselves as "novice," five as "advanced" and two as "expert." Additionally, eight of the ten participants said that they were at least somewhat interested in learning about the personal and professional connections between jazz musicians (with five participants extremely interested).

From a demographic perspective, a majority of participants (7 out of 10) were female and a majority of participants (7 out of 10) were currently enrolled in a master's program in Library and Information Science. As a whole, despite being a convenience sample, our participants were generally representative of the target users of the Linked Jazz 52nd Street website.

## **Study Procedure**

For each test, a second team member was present to observe, take notes, and ask a series of exit questions. To ensure detailed documentation, usability tests were recorded using the Silverback or Morae computer software to capture audio, video and computer screen activity with consent from the test participants. The tests took 30 to 45 minutes to complete.

In order to gain specific insights into the participants' experiences, we administered both pre-test and post-test questionnaires, which are described in detail below.

#### Pre-Test Questionnaire

The pre-test questionnaire (see appendix) was administered using SurveyGizmo and was used to assess each participant's level of familiarity with jazz music, use of online crowdsourcing projects, and interest in learning more about the personal and professional connections between musicians. The questionnaire also collected information about the participants' frequency and comfort level of using the Internet, social media, and online forums and blogs, as well as their gender, age, occupation and highest level of education.

#### Affect Grid

The Affect Grid is a 9x9 graph that shows different combinations of energy and pleasure (Russell, Weiss, & Mendelsohn, 1989). Data from the affect grid allowed the participants to express succinctly how they felt while using the website and assigning different musical relationships. The task gave the Pratt SILS UX Team another opportunity to observe the participants' overall experience with the website.

#### Post-Test Questionnaire

The post-test questionnaire (see appendix), also administered via SurveyGizmo, focused on the participants' experience using the website, as well as their thoughts on the website's layout, design and functionality. To determine the participants' level of engagement with the interface, we captured the three main components of user engagement: perceived usability, aesthetics, and focused attention (O'Brien & Toms, 2012). Perceived usability was measured using the 10-item System Usability Scale (SUS), the most widely used questionnaire for measuring perceived usability (Sauro, 2011). Aesthetics was measured using a single item on a 7-point semantic differential scale with ugly and beautiful as anchors (Hassenzahl & Monk, 2010). Focused attention was measured using the 7-item "focused attention" subscale adapted from the User Engagement Scale (O'Brien & Toms, 2012). Two additional questions were added to assess participants' overall reactions to the website: whether participants' experience was positive or negative and whether they were likely to re-visit the website again.

#### **Tasks**

Each participant was given three tasks to complete on the Linked Jazz 52<sup>nd</sup> Street website while thinking aloud. The tasks represent typical use cases for potential users.

#### Task 1

Take a look around the main page of the site. Please tell us your initial impressions as you're talking us through it. What do you think you can do on this site?

This task gave the test participants a chance to observe and evaluate the design of the main page before logging in. The task allowed the Pratt SILS UX Team to find out if the layout and design provided the users a clear idea of the purpose of the site and its participatory nature. We also discovered what features, functions and images on the website were immediately apparent and eye-catching to the participant, and what items were unclear or confusing.

#### Task 2

For the next few minutes, please choose a musician of your choice and assign relationships for this musician. We aren't expecting you to finish a certain amount, so take your time.

This task allowed each participant to explore the site at his or her own pace. It immediately demonstrated any problems with the login functionality of the website. The task then revealed the general pathways the participants took to map relationships between musicians, the participants' understanding (or misunderstanding) of the process of assigning relationships, and what choices they would make in ambiguous/unclear situations.

#### Task 3

Please go back to the homepage and find the musician Lionel Hampton. Map his relationship with Duke Ellington and Benny Goodman.

This task gave the participants a more directed pathway through the website. It allowed us to ascertain the level of difficulty participants had in assigning relationships, what kind of relationships they believed they were assigning to the musicians (whether it was multiple or single relationships), and what methods the participants used to assign relationships when they were unsure about the connection between musicians.

# **Findings & Recommendations**

## **Overall Findings**

The overall results indicated that most participants found the instructions clear and easy to understand and were able to understand the site's overall purpose and what it was trying to accomplish. However, participants also struggled with the core task of the website – assigning relationships between musicians – and had mixed reactions to the experience as a whole, ranging from moderately negative to moderately positive.

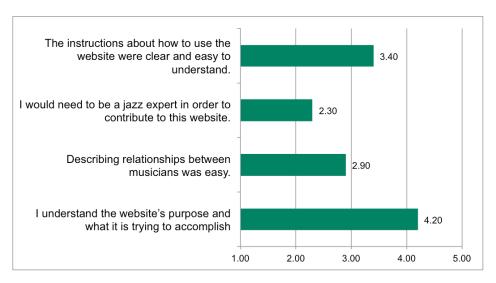


Figure 1. Summary responses to select questions on the post-test questionnaire. For each question, 1 = Strongly Disagree and 5 = Strongly Agree.

Data were collected for the three main components of user engagement: perceived usability, aesthetics, and focused attention (O'Brien & Toms, 2012).

**Perceived Usability**: The website achieved an SUS score of 65.4, indicating that it is slightly below average but marginally acceptable in terms of usability (Bangor, et al., 2009).

**Aesthetics**: The website had a mean beauty rating of 5 (on a 7-point scale), which suggests that most participants found the website attractive and visually appealing.

**Focused Attention**: The average "focused attention" score was 2.61 (on a 5-point scale) which suggests that participants were not fully focused on the website as they were using it.

Taken together, the data suggest that participants were not particularly engaged with the website. Still, participants' overall impressions of the website were encouraging: most participants reported that they had a positive experience (mean = 4.8 on a 7-point scale) and were at least somewhat likely to visit the website again (mean = 4.5 on a 7-point scale).

The Affect Grid was used to gain further insight into participants' emotional reactions to the website. The results shown in Figure 2 indicate that participants' energy levels ranged from moderately low to moderately high and the vast majority of participants said that they had pleasant feelings toward the website<sup>1</sup>.

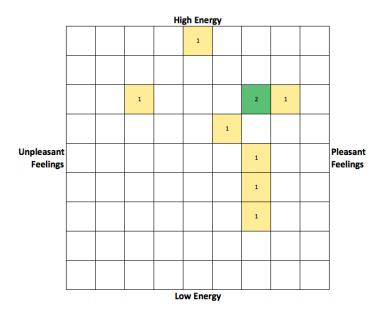


Figure 2. Summary of Affect Grid responses showing generally positive emotional reactions.

Overall, we can conclude from these data that participants were moderately satisfied with the Linked Jazz 52<sup>nd</sup> Street website but several improvements can be made to the interface to increase its usability and provide a more engaging experience for users.

9

<sup>&</sup>lt;sup>1</sup> The affect grid response from one participant was not recorded due to a data collection error.

## Recommendation #1: Convert homepage icons to clickable buttons

#### **Problem Description:**

Several participants clicked the row of icons on the top of the homepage thinking the icons were buttons. Participants expressed moderate levels of frustration when nothing happened.



Figure 3. Several participants clicked on the homepage icons expecting additional information.

#### Recommendation(s):

Convert the icons into clickable buttons that open a pop-up window (similar to the "About" pop-up window) that provides more detail about what each icon represents.

These windows would serve as an overview tutorial of the Linked Jazz 52<sup>nd</sup> Street tool, similar to the tutorial provided on the relationship assignments page. Each individual icon should link to a specific pop-up window that includes a larger version of the icon and a brief narrative description of the process it represents. Each window should provide directional controls so users can progress through the overview tutorial without having to return to the homepage.

## Recommendation #2: Add separate login and account creation screens

#### **Problem Description:**

Several participants had trouble or were confused about how to login to the Linked Jazz 52<sup>nd</sup> Street website. One participant did not realize that a new account had to be created before logging in while others said the login pop-up window did not make the "register" option clear enough.

#### Recommendation(s):

A simple (but less effective) solution is to convert the "create a Linked Jazz account" text into a hyperlink that goes to the "Register an account" page.



Figure 4. A simple solution: turn "create a Linked Jazz account" into a hyperlink to the account creation page.

A more effective (but more complicated) solution is to separate the login and account creation processes, similar to Pinterest. First, change the top "Login" link in to "Login or Create an account" as shown in Figure 5.



Figure 5. Change "Login" to "Login or Create an account."

Second, when users click a musician (without logging in first), they should be presented with a screen with two options: "Log In" or "Create an account," similar to Pinterest (as shown in Figure 6).



Figure 6. Pinterest clearly separates the login and account creation processes.

The login and account creation processes should be visually distinct from each other. See below for Pinterest's login (Figure 7) and account creation (Figure 8) pages as examples. Note how each screen is different and provides a clear link to the other, with an emphasis on driving users to the "Join Pinterest" process.



Figure 7. Pinterest's Login screen. Note the large "Join Pinterest" button at the bottom.



Figure 8. Pinterest's account creation page. Note the small "Log In" link at the bottom.

## Recommendation #3: Clean up and add more controls to interface tutorial

#### **Problem Description:**

The participants who took the time to read through the tutorial found it very informative and helpful (although they did find a few spelling errors). However, a few participants clicked 'Okay' in the initial pop-up and wanted to end the tutorial after reading through a few pop-ups, but they had to continue clicking 'Next' until they reached the end. Other participants were eager to get started and clicked 'No Thanks' in the initial pop-up, but later on wanted to re-access the tutorial because they were confused about what they were supposed to be doing.

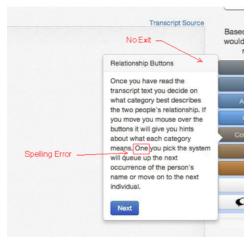


Figure 9. The tutorial windows have some spelling errors and do not provide sufficient user control.

#### Recommendation(s):

First, proofread and correct misspellings in the instructional windows.

Second, add a link to the tutorial so users can get help later on if they skip the tutorial at the beginning or if they do not understand how the site works. The link should be located underneath the "Add Comment" button and could either restart the tutorial or lead to a separate help page.

Third, use the Google Groups tutorial as a model: add an 'Exit' option within each pop-up so users can leave the tutorial at any time, add 'Next' and 'Previous' buttons to provide more navigation options, and add an indicator of progress through the tutorial so users are more informed about how long the tutorial will take (e.g., "Step 3 of 15"). See Figure 10 for a screenshot of the Google Groups tutorial.

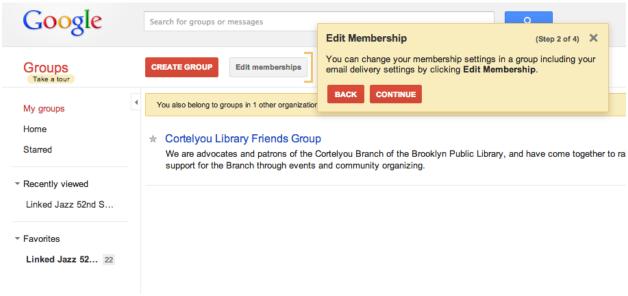


Figure 10. The Google Groups interface tutorial offers greater control to users by offering 1) an 'exit' option, 2) 'Back' and 'Continue' buttons, and 3) a progress indicator (e.g., "Step 2 of 4").

## Recommendation #4: Tweak the presentation of transcript snippets

#### **Problem Description:**

Some participants were confused by the snippet of the interview immediately given to them. It was not apparent to some participants that they could see larger portions of the interview by clicking the arrows to go up and down, and thus gain more context that could make it easier to assign a relationship. When participants did understand and use the function of the arrows, they often lost their original spot when viewing more of the transcript.

#### Recommendation(s):

Make the up/down arrows larger and more visually distinct from the background and add a subtle outline or background color to anchor the original snippet. A mock-up of these changes is presented in Figure 11. Additionally, the 'Up' and 'Down' buttons should be modified so that they allow users to scroll from their current location; if a user has reached the end of the viewable transcript, the buttons should add more transcript snippets. For example, if a user has already viewed portions of the transcript above, they should be able to scroll back down the transcript by clicking the 'Down' arrow.

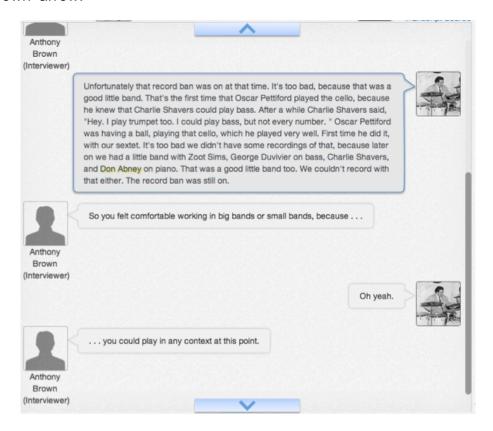


Figure 11. Mock-up of changes showing more visible arrow buttons and emphasis on the original snippet.

#### **Problem Description:**

The test participants had difficulty navigating through the interviews and finding the entire transcripts of the original interviews. When they did manage to find the transcript source link, they were confused because the link led them to a database rather than the text of the entire interview.

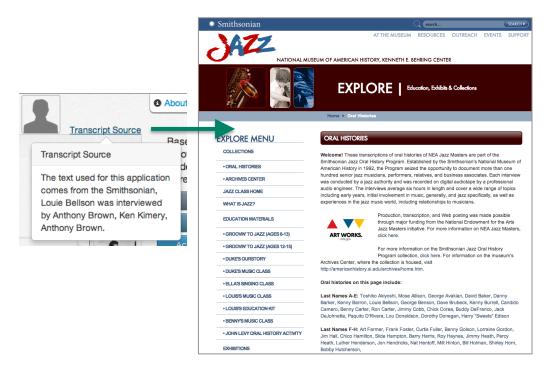


Figure 12. The "transcript source" link is hidden and produces an unexpected action.

#### Recommendation(s):

Though it is not necessary for users to use this link, the majority of participants were interested in reading, or at least seeing, the entirety of the transcript.

Ideally, clicking on 'Transcript Source' should lead users directly to the text of that specific interview rather than just the database of all interviews. However, we recognize that this solution may not be feasible due to the number and variety of sources used. If this is the case, we recommend changing the text to "Transcript Source: <u>Smithsonian Histories</u>" or "Transcript Source: <u>Hamilton Jazz Archive</u>" with only the name of the source hyperlinked.

We also recommend that the link be more heavily emphasized by placing it in the center of the page directly above the 'Up' arrow on the transcript controls.

## Recommendation #6: Improve the relationship assignment process

#### **Problem Description:**

While almost all participants were eventually able to figure out the basic process of assigning relationships, there were some notable usability issues that caused confusion or frustration.

First, some participants thought that the highlighted names in yellow meant that a relationship had already been assigned.

Second, participants looked in vain for meaning in the different colors of each relationship button – no participants (and none of the members of the UX team) realized that shades of blue represented 'personal' relationships while shades of orange represented 'professional' relationships. Interestingly, few participants used the skip button even though they often had no idea what relationship to assign; it seemed that many did not even notice 'skip' was an option.

Third, the "Add Comment" option was unclear as participants were not sure what type of comments they should offer (this was despite the presence of the information bubble that appears when hovering over the button). One participant in particular said that s/he had additional knowledge to add but were discouraged by the ambiguous nature of the "Add Comments" pop-up window.

#### **Recommendations:**

In addition to the yellow highlights in the snippet, make the names **bold** (see Figure 13). This should help make the names stand out more and should reduce the possibility that users misinterpret the yellow highlight.

Yeah. Dannie Richmond, Paul Barbarin, and somebody else down there - Earl Palmer. In fact I had Earl Palmer play drums when **Pearl Bailey** did her television shows. She did 15 shows. I conducted the show. I had Ray Brown on bass, Earl Palmer on drums, because Earl could play anything. Great drummer.



Figure 13. Bolded names make them more apparent and could reduce potential confusion.

Use a more vivid and distinct color scheme for the relationship buttons. Instead of using gradients of the same colors, make the buttons different colors entirely (this will also help make the visualization tool more distinct; see following section). Differentiate the 'Skip' function from the others – change the text to 'Next/Skip' and add an arrow symbol. Also make the button smaller and right aligned. Change the 'Add Comment' button to a text hyperlink to better differentiate it from the relationship buttons. See the mock-up in Figure 14 (below) for reference.

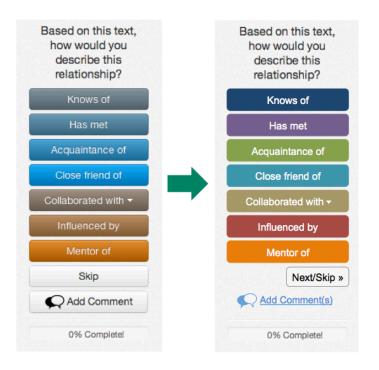


Figure 14. The current relationship assignment controls and our suggested re-design. Note the vivid colors and distinction between the different features.

Finally, alter the help text in the "Add Comment" pop-up bubble to provide specific examples of comments, explain how the comments will be used, and add a feedback mechanism (e.g., a "Thank you for your comment" message) to confirm that the user's comment has been successfully added.

#### **Problem Description:**

Participants were unsure where transcription tasks begin and end, as there was no apparent feedback when a relationship has been assigned or that that their contributions are being tabulated. There are two signs of progress, both of which only appear after users go through all of the snippets mentioning a specific artist: 1) the small visualization adds a new 'node' and 2) the musician's name in the left-hand column is highlighted in blue. In our testing, it was clear that these feedback mechanisms were not sufficient as several participants made an explicit request for positive reinforcement and proof that they were contributing to the Linked Jazz project.

## Recommendation(s):

In general, users should be given more feedback throughout the relationship assignment process. Our specific recommendations are as follows:

First, add emphasis and more user control by modifying the "# of # mentions" feature. We recommend using a visual display system to indicate how many mentions (snippets) users need to cycle through. In Figure 15, we present a visual system that uses a series of small dots to represent the number of mentions that need to be completed. The dots should be clickable (e.g., so users can go back to the 1<sup>st</sup> mention after assigning a relationship for the 3<sup>rd</sup> mention) and they should change color as users assign relationships (the colors should map to the color scheme proposed in the previous section). This visual display system should be scalable for up to 12-15 mentions of a particular artist; anything higher would require an alternate display method.



Figure 15. Mock-up showing a potential implementation of the "# of # mentions" feature. Note the use of visual indicators to give users more feedback about their progress and more control over the process.

Second, place more emphasis on the visualization feature by immediately creating a node – in the color of the previously assigned relationship (using the same color

scheme described previously) – whenever any relationship button is pressed. This way, users can see immediate progress without having to cycle through every snippet. For musicians with multiple mentions, the nodes should grow in size and change color as more relationships are added. Depending on the desired mental model, the nodes should either 1) change to the most recent relationship assigned, 2) change to a combination of colors from all the relationships assigned, or 3) the color of the strongest or more popular relationship assigned.

Third, as relationships are completed (e.g., after a user cycles through all possible mentions), the musician's photo in the left-hand column should change to the same color as the relationship assigned and a checkmark should appear next to the musician's name. The color should match the color of the node in the visualization window to create a more obvious link between the two features. A mock-up of a potential implementation is show below (Figure 16).

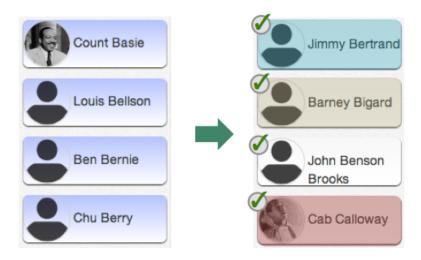


Figure 16. Mock-up of potential system showing the musicians whose relationships have been assigned.

Note the color-coding and the green checkmarks as visual feedback.

## Recommendation #8: Communicate the value and purpose more effectively

#### **Problem Description:**

Overall, the site does not effectively communicate how relationships are defined and stored. It's our understanding that all relationship input by users are logged and do not cancel each other out, but the current network visualization tool only shows the last relationship that was registered. Not surprisingly, this disconnect caused a great deal of confusion for our participants, a majority of whom were unable to understand the 'what' and 'how' of the site. When assigning relationships, some participants were unsure of what exactly their assignment was contributing to and were unable see if their contributions were making any real connections or if their work was being logged anywhere.

Some participants also were unsure why they were assigning multiple relationships to the same two musicians: if they chose 'Has met' in their initial assignment, does that get cancelled out when 'Influenced by' is chosen for the second mention, or are both of those choices logged equally? Since some participants did not understand exactly what their relationship assignments were contributing to, some became anxious about assigning any relationship at all. This issue may be particularly salient for expert users who may be conflicted between the relationship suggested by an interview snippet and the relationship they know existed between two musicians.

## Recommendation(s):

Our previous recommendations would alleviate some the issues mentioned above, but they wouldn't solve the larger problem of communicating the value and purpose of the project. The simplest and most obvious way to show value to users would be to provide a consistent link to the fully developed network visualization, which would give users a better idea of the incredible network they're contributing to and help them connect the work they're doing with the broader Linked Jazz project.

Another valuable aspect of the tool is the crowdsourcing component, but the only connection with the "crowd" is on the homepage, which shows an ambiguous "percent complete" for each musician. There are a number of ways to connect individual users with the crowd. For instance, a button could be added below "Add comment" that says "Not sure" or "What does the crowd say?" Alternatively, after completing a relationship, a pop-up window could show how many other users assigned the same relationship, which would allow users to check their work against everyone else.

The final implementation depends on the vision of the Linked Jazz team: what is the value-add for contributors? Why should they devote their time and energy into assigning relationships? Unfortunately these questions are beyond the scope of a usability study, but we believe their answers are critical to the success of the project and urge their consideration moving forward.

## Conclusion

Linked Jazz 52<sup>nd</sup> Street is a tool with a lot of potential. Most of our participants experienced genuine interest and curiosity while navigating the website. However, there were also some serious sources of frustration that must be addressed in future versions of the site. Some solutions to these problems are straightforward, and we have already discussed these in depth. For instance, when users first encounter the website, it would be helpful if the main icons were interactive and helped explain the site, and if the login was less cumbersome and allowed first-time users to easily access the site. Once users login, they need to be able to re-access the tutorial whenever they need help. They also need a simpler way of looking at the entire transcript and a smoother and more intuitive way of navigating through snippets of transcript. The design and layout of the buttons could be vastly improved by enlarging the arrows, making each relationship button a distinct color and making the "skip" and "add comment" buttons more visible. The "add comment" function could also be improved by giving the user more direction on what kind of comments the Linked Jazz team is looking for. The website also needs to give better indications to users that they have completed a task. The visualization tool has potential, but it needs to be enhanced to become an effective way of communicating the user's contribution to the website.

This brings us to a larger issue: our participants were interested in looking at the interviews with jazz musicians and discovering relationships, but they were confused about how they were contributing to the site. They didn't know if they were assigning one relationship to two people or if two people could have multiple relationships that would be added together. If two people couldn't have multiple relationships, why did they have to assign the same relationship five times? The users of this site need more feedback and reinforcement than what is currently given. They need to have a better understanding of the purpose of the website and they need to see how they are contributing to the website so that they don't lose interest. Some of our recommendations address this issue, but it is important to think about the big picture. Currently, Linked Jazz lacks the feel of a crowd-sourcing system. The purpose of the website and the user's role in it are still too vague. Furthermore, users feel no sense that they are part of a larger community.

We hope that our report has given you meaningful feedback on your website and helpful insight into the desires and needs of your potential users. Linked Jazz is a remarkable tool that, with some adjustments, could develop a loyal following. We hope that our recommendations and suggestions help you in achieving this goal.

## References

- Bangor, A., Kortum, P. T. & Miller, J. T. (2009). Determining What Individual SUS Scores Mean: Adding an Adjective Rating Scale. *Journal of Usability Studies, 4*(3), 114-123.
- Brooke, J. (1996). SUS: a "quick and dirty" usability scale. In P. W. Jordan, B. Thomas, B. A. Weerdmeester, & A. L. McClelland (Eds.) *Usability Evaluation in Industry*. London: Taylor and Francis.
- Hassenzahl, M., & Monk, A. (2010). The Inference of Perceived Usability from Beauty. *Human-Computer Interaction*, *25*(3), 235-260.
- O'Brien, H. L., & Toms, E. G. (2012). Examining the generalizability of the User Engagement Scale (UES) in exploratory search. *Information Processing and Management* (Pre-Print), http://dx.doi.org/10.1016/j.ipm.2012.08.005
- Russell, J. A., Weiss, A., & Mendelsohn, G. A. (1989). Affect Grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology*, 57(3), 493-502.
- Sauro, J. (2011). A Practical Guide to the System Usability Scale (SUS): Background, Benchmarks & Best Practices. Measuring Usability LLC.

# **Appendices**

## **Participant Recruitment Profiles**

#### **Pratt Student Music Lovers/Music Librarianship Concentrations**

In a nutshell: will be interested in how music-related information is collected and shared

- interested in new platforms for music information
- familiar with multi-media/collaborative knowledge/knowledge sharing platforms
- daily web-user/frequent user of social media
- most-likely will want information for free
- might use information for classroom assignments, homework, research
- Pratt Student

#### Non-Pratt Jazz Musicians/Musicians (professional and non-professionals)

In a nutshell: musicians who like music/jazz, some might earn a living from it

- willing to spend time to research and contribute to jazz information
- interest in Jazz history/music history
- very enthusiastic about music
- might be willing to spend money for information
- will be very knowledgeable
- might know some musicians featured on site, could share stories

#### **Music Curators**

In a nutshell: professionals whose job involves collecting items related to music and providing access to it

- might have a budget for music related items
- their companies/organizations might donate to the site, or provide materials to the site
- would be willing to spend a lot of time on the site
- enthusiastic about music
- might recommend site to other people/ their patrons/target audience

#### Average Joe/ Jane

In a nutshell: just came across the site while searching for something else/stumbled on it

- regular web-user
- might like jazz, probably doesn't love it
- probably will have short attention span
- will not be patient enough to thoroughly explore site
- Will be more concerned with aesthetics than results

Linked Jazz: Scre	ening Questionnaire
Your name, email address and ph will remain confidential. * Required	none number will be used only for the purposes of this study and
Please tell us your name: *	
Email address: *	
Phone number:	
Phone number:	
_	describes your current profession: *
Student Educator	
Creative Professional	
Staff Member of a Museum/Ar	rchive/Library
Other:	,
0	
How familiar are you with basic	web applications and functionality?
Very - I use the internet every	**
	ten and can perform most basic tasks.
Somewhat Familiar - I use the	
Not Familiar - I've never used	the internet.
On a scale of 1 to 5 (1 being low music?	west, 5 being highest) how would you rate your interest in jazz
1 2 3 4 5	
Not Interested O O O O	Very Interested
- · ·	minutes participating in our study? *
Yes	
○ No	
Are you available to come to the	e Pratt Manhattan Campus or would you prefer to meet a
	nate location (coffeehouse, library, etc.) ? *
Pratt Manhattan Campus (14th	•
Some other location in Manhat	ttan
■ Neither	
Submit	
Never submit passwords through	Google Forms.
Coogle Drive	This content is neither created nor endorsed by Google.
Google Drive	Report Abuse - Terms of Service - Additional Terms

# **Pre-Test Questionnaire**

1) You are: ( ) Male ( ) Female ( ) Other
2) Your age: ( ) 18-24 ( ) 25-34 ( ) 35-54 ( ) 55-64 ( ) 65+
3) Your occupation:
4) Your highest level of education: ( ) High school ( ) Some college ( ) Bachelor's degree ( ) Some graduate school ( ) Master's degree ( ) Doctorate
5) Are you currently a student? ( ) Yes ( ) No
6) If you answered Yes, what is your degree program?
7) How would you describe your familiarity with jazz music?  ( ) None - I have no knowledge or interest in jazz music  ( ) Novice - I have some knowledge of jazz music; I never or rarely listen to jazz music; I have heard of some jazz musicians but don't know very much about them  ( ) Advanced - I have good working knowledge of jazz music; I enjoy listening to jazz music and do so fairly often; I know a little bit about many famous jazz musicians  ( ) Expert - I have a deep understanding of jazz music and its history; I regularly listen to jazz music; I know a great deal about many jazz musicians, famous or otherwise
8) How would you describe your interest in crowdsourcing projects (e.g., Wikipedia, KickStarter, etc.)?  ( ) None – I have no interest in using or contributing to crowdsourcing projects ( ) Minimal – I have used some crowdsourcing projects but I've never contributed ( ) Moderate – I have used crowdsourcing projects and have contributed a few times ( ) Heavy – I regularly use and contribute to crowdsourcing projects

9) How interest between mus		•	_	•	onal and	professi	onal co	nnections
Not at all Interested					()	()	()	Very Interested
mitor ootog	1	2	3	4	5	6	7	merostou

10) How frequently do you:

	Never 1	Rarely 2	Sometimes 3	Somewhat Frequently 4	Very Frequently 5
Browse the internet	( )	( )	( )	( )	( )
Post updates on social media (i.e. Facebook, Twitter)	( )	( )	( )	( )	( )
Contribute to an online community (e.g. blog or forum)	( )	( )	( )	( )	( )

# **Post-Test Questionnaire**

1) Please indicate your level of agreement with each of the following statements.

	Strongly Disagree				Strongly Agree
	1	2	3	4	5
The instructions about how to use the website were clear and easy to understand.	()	()	()	()	()
I would need to be a jazz expert in order to contribute to this website.	()	()	()	()	()
Describing relationships between musicians was easy.	()	()	()	()	()
The website's visual layout was appealing to me.	()	()	()	()	()
I understand the website's purpose and what it is trying to accomplish	()	()	()	()	()

## 2) Please indicate your level of agreement with each of the following statements.

	Strongly Disagree				Strongly Agree
	1	2	3	4	5
I think that I would like to use this website frequently.	()	()	()	()	()
I found the website unnecessarily complex.	()	()	()	()	()
I thought the website was easy to use.	()	()	()	()	()
I think that I would need the support of a technical person to be able to use this website.	()	()	()	()	()
I found the various functions/features of the website were well integrated.	()	()	()	()	()
I thought there was too much inconsistency in this website.	()	()	()	()	()
I imagine that most people would learn to use this website very quickly.	()	()	()	()	()
I found the website very awkward to use.	()	()	( )	()	( )
I felt very confident using the website.	()	()	()	()	()
I needed to learn a lot of things before I could get going with this website.	()	()	()	()	()

## 3) Please indicate your level of agreement with each of the following statements.

	Strongly Disagree				Strongly Agree
	1	2	3	4	5
I lost myself in this experience.	()	()	()	()	()
I was so involved in my tasks that I lost track of time.	()	()	()	()	()
I blocked out things around me when I was using this website.	()	( )	()	()	()
When I was using the website, I lost track of the world around me.	()	()	()	()	()
The time I spent on the website just slipped away.	()	()	()	()	()
I was absorbed in my tasks.	()	()	( )	()	()
During this experience, I let myself go.	()	()	()	()	()

# 4) The Linked Jazz 52<sup>nd</sup> Street is:

Ugly	( )	()	()	()	()	()	()	Beautiful
	1	2	3	4	5	6	7	

# 5) Overall, my experience using the Linked Jazz 52<sup>nd</sup> Street website was:

Negative	()	()	()	()	()	()	()	Positive
	1	2	3	4	5	6	7	

## 6) The likelihood that I visit the Linked Jazz 52<sup>nd</sup> Street website again is:

Not at all	( )	( )	( )	( )	( )	( )	( )	Very
Likely								Likely
	1	2	3	4	5	6	7	

-----

Thank you for completing the questionnaire. We value and appreciate your time and your feedback.

Questions to ask participant after completing the post-test questionnaire:

- I noticed that you [select an unusual or unexpected action taken by participant]. Can you explain your thought process? Why did you do it that way?
  - o NOTE: If necessary, repeat a few times.
- What features, if any, did you like the most? What features, if any, did you like the least?
- What did you find difficult to understand/perform? What was easy?
- What is the purpose of the 52<sup>nd</sup> Street website? What is the result of defining relationships between musicians?