The vMLK Project Website

Final Recommendation Report 2019

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Introduction

The Virtual Martin Luther King, Jr. Project is an ongoing effort at NC State University (Raleigh, North Carolina) to preserve the rhetorical and historical significance of Dr. Martin Luther King, Jr.'s 1960 speech, "A Creative Protest." This speech, also commonly known as the "Fill Up the Jails" speech, occurred in Durham, North Carolina at the White Rock Baptist Church. However, despite the speech's significance, it was not recorded. Recognizing this loss, the vMLK Project has used advanced digital technologies to recreate this speech, so that current audiences might also experience it. The vMLK project offers multiple experiences of the speech: a historical experience in which audiences watch a documentary to learn about the events leading to the speech; a collective listening experience in which audiences are immersed in an environment, replicating the sounds of the speech being delivered in the White Rock Baptist sanctuary; and a simulation (virtual reality) experience in which audiences can watch, move through, and listen to an animated version of Dr. King giving the speech in the sanctuary. The goals of these experiences include (1) documenting and recovering the history and everyday experience of African American/Black life; (2) innovating the use of digital tools to provide audiences with historical and cultural knowledge; (3) providing audiences with sound-centered experiences of civic and political engagement and transformation; and (4) providing pedagogical materials for teachers and students in the areas of civil rights history, social studies, public address and visual/digital rhetoric.

The vMLK website (https://vmlk.chass.ncsu.edu/) works to fulfill these goals by serving multiple purposes. The website offers the opportunity to interact with the historical, collective listening, and simulation experiences remotely. It provides information about activities related to the project, including events, scholarly activities, and the project's history. It additionally provides resources for public speaking educators so that they might integrate the vMLK Project into their curriculum. By providing these resources, the website fulfills the needs of multiple audiences. Further, because the vMLK project has been the recipient of multiple grants, including the NEH Digital Projects for the Public grant ($200,000), the website has a major public-facing role. Given this, it is of paramount importance that the vMLK website serve the needs of its visitors and allow them to easily complete their intended tasks. To identify how to meet this need, the vMLK Project Team conducted a series of performance and user tests from March-July 2019. The performance tests applied software and manual review to inspect website. Additionally, the user tests consisted of testing a total of 23 participants, who either completed a usability test or a device / browser compatibility test. The following report offers the findings from the performance and user tests; it further offers recommendations for improving the vMLK website.

EXECUTIVE SUMMARY

The following provides an executive summary of results from the performance and user tests. The performance tests took place at NC State University and used the software Screaming Frog and Google Page Speed Tools. It also included a manual inspection of the site using both a desktop and mobile web browser. The user tests took place at NC State University for local participants and via video conference for remote participants. A total of 12 individuals participated in a usability test, and a total of 11 individuals participated in a device/browser computability test. The results, and more in-depth descriptions of issues, from the performance tests can be found, beginning on page 8 in the Content Audit section, while the results from the user tests can be found, beginning on page 11. The summary, below, is organized by key concepts related to usability studies. These concepts include: actionability, findability, navigability, accessibility, relevance, accuracy, currency, design, expectation, and intuitiveness. The findings from the performance and usability test transcripts were coded (by a single coder) using these concepts in order to produce salient results.

Overall the website was viewed positively by users, and very few major issues were identified. This suggests that the vMLK website meets the majority of users' expectations and that the majority of users will find the website usable. Importantly, most of the major issues can be resolved by making a few recommended changes: (1) some issues of actionability, navigability, and accessibility will be resolved by updating the site to be compatible with various screen ratios and browsers. (2) Some issues of currency, actionability, and expectation will be resolved by updating links and information. (3) Some issues of intuitiveness, expectation, and navigability will be resolved by making the purpose of the website more immediately apparent. Nevertheless, it is recommended that the vMLK develop a routine of auditing the content of the website, quarterly. This is based on best practices in usability, which suggest that usability is an ongoing process. It is additionally based on the fact that between the delivery of the May 2019 Preliminary Report and the August 2019 Final Report, new issues with the website were identified (noted in this report).

Usability Concept	Major Issue Identified (if any)
Actionability refers to the ability for users to complete goals on the website.	- website not compatible with variable screen ratios/browsers, rendering links not actionable - several links are not working, which is likely an issue of *currency*
Findability refers to how easily users can locate information on a website.	No major issues identified. Users were able to easily locate information.

Navigability refers to how easily users can move from one part of the website to another	• website not compatible with variable screen ratios/browsers, thereby limiting the ability to navigate the website easily.
Accessibility refers to the ability of the website to be used by diverse users, including those with disabilities	• About 33% of images lack alt-text, which may not be an issue if the images *do not* have information embedded within them (i.e. they only act as decoration) • Video and audio recordings lack a transcript or closed captioning, which poses issues to the hearing impaired and/or visually impaired. • The contrast between the background and text, in some of the text modules, is not high enough, posing issues to visually impaired users.
Relevance refers to how useful the content is to anticipated users.	• No major issues identified. Users expressed that the website met and exceeded their needs.
Accuracy refers to the factuality or correctness of information.	• No major issues were identified.
Currency refers to the up-to-date quality of information and items.	• Several links are dead • Upcoming events, social media channels do not demonstrate maintenance • Publications and project staff need updating
Design refers to the overall aesthetic and the expectation for a minimalist design that avoid redundancy	• Overall, users commented that they liked the design • Some redundancy between the "listening experience" page and other pages • Some images pixelated
Expectation refers to the ability of the website, or components of the website, to deliver content or perform in a way that they anticipate.	• No major issues identified. Some fairly minor issues listed in the usability test results.
Intuitiveness refers to the design of the website as "easy-to-use" or for users to apply a "common sense/rational" approach to finding information and completing tasks.	• The different components of the experience page are not intuitive to users. In other words, they do not readily understand what these components are without clicking on each link and comparing it to other components of the experience page. • The function of the website is not intuitive to all users. Specifically, users are not readily able to distinguish whether this

	is a site offering historical information or a site which showcases the project.

Objectives & Methods

The purpose of this recommendation report is to identify key issues related to the usability of the vMLK website as well as to offer strategies for improving the performance of the website. The recommendations in this report are derived from a content audit, audience analysis, usability test, and device / browser computability test. To complete the content audit, the hierarchical structure of the vMLK website was identified and listed in a content inventory spreadsheet. Further, the content was inspected using a web scraping software, a performance analytics tool, and manual inspection.

After the completion of the content audit, an audience analysis was performed to identify the primary (target) audiences of the vMLK website. To complete the audience analysis, the content inventory was surveyed to identify the kinds of information available on each page and to determine which audiences would find those particular kinds of information useful. Additionally, members of the vMLK team were informally surveyed to identify those users with whom they most often interact. The audience analysis informed the creation of sample user personas. These personas approximate the most common or likely visitors to the vMLK. They include: a N.C. State COM 110 Student/undergraduate, a COM 110 instructor, a graduate student, a non-affiliated instructor, an administrator, and a member of the general public.

The final phases of evaluation included two rounds of usability testing and one round of device/browser compatibility testing. During the usability tests, participants from each user type completed a series of tasks. Users were observed as they completed tasks; they were additionally prompted to speak-aloud their thoughts as they navigated the website. This provided insights as to how easily users could complete tasks on the website. Additionally, the usability test included a pre- and post-test questionnaire. This provided insight to users' familiarity with the website as well as their overall impressions. During the device/browser compatibility testing, participants used a variety of devices (smartphones and laptops of various manufacturers) and browsers to explore the vMLK website.

The following section provides a summary of findings from both the content audit, usability tests, and browser/device compatibility tests. The "Content Audit" section details specific results and recommendations from the web-scrape, performance analysis, and manual inspection. The "Usability Test" section offers a summary of findings and recommendations from the pre- and post- test questionnaire alongside observations from the usability test. The "Device / Browser Compatibility Test" section offers a summary of findings and recommendations regarding interoperability of the website. Appendices D and E include the testing materials.

This is the final version of this report. A preliminary report was delivered to key stakeholders on 30 May 2019. Since then, the website has been revised to reflect the preliminary recommendations. Any resolved issues are reported on page 21, in the "Resolved Issues" section.

Performance Test Results

The performance tests consisted of three strategies, which included scraping the website for issues, examining the performance of the website, and manually testing the website for usability. Each of the strategies are explained below. A problem and recommendation list summarize the findings.

Screaming Frog

Screaming Frog is a search engine optimization (SEO) and content audit tool used to crawl websites. It can be used to review a website and identify flaws which can hurt a website's performance in search results.

Problem	Recommendation
37.5% of Images missing alt-texts, which poses problems to the accessibility of the website (see Appendix A for list)	Add alt-text (under 100 characters) to all images which have information relevant to the website. If images do not contain information (such as decorative images), then do not add alt-text.
12.4% of pages / page titles duplicated across different URLs (see Appendix A for a list).	Review the URLs and delete duplicate pages and/or revise duplicated page titles.
39.31% of page titles over 65 characters (see Appendix A for a list)	Revise the page titles to be above 30 characters and below 65

PageSpeed Tools by Google

Google PageSpeed is designed to analyze a website's performance. PageSpeed Insights makes recommendations based on best practices, optimization techniques, and loading speed. With mobile search queries surpassing desktop searches, page speed is becoming increasingly important to websites that want to hold on to their visitors. PageSpeed measures the performance of both the desktop and mobile site in terms of speed.

Issue	Recommendation
Image file type slows the loading speed on both desktop and mobile web browsers.	Image formats like JPEG 2000, JPEG XR, and WebP often provide better compression than

	PNG or JPEG, which means faster downloads and less data consumption.
Dead CSS result in slower load time	Remove dead rules from stylesheets and defer the loading of CSS not used for above-the-fold content to reduce unnecessary bytes consumed by network activity.

Manual Review:

Using a manual review method, each page of the vMLK project website was inspected by a human user for actionability, findability, navigability, accessibility, relevance, accuracy, currency, design, expectation, and intuitiveness. This helps to identify general issues that users may have with the website as they attempt to find resources relevant to them. An important key finding is that the website's actionability and navigability is severely limited on different screen ratios and on mobile browsers. Additionally, the website has several accessibility issues – given the recent status of this project as federally funded, it may come under Section 504 scrutiny.

Page Titles	Problem	Type	Recommendation
All pages	Not mobile browser accessible, which is a problem given the growing dependence on smartphones (over traditional desktop/laptop computers) for internet access. In particular, on a mobile browser the links do not work, and some images are distorted/pixelated.	Accessibility, actionability	Optimize the website for a variety of browsers and screen ratios.
All pages	When the web browser is not maximized on the user's desktop, the links do not work. Additionally, images are distorted and pixelated in some cases.	Accessibility, actionability	Optimize the website for a variety of browsers and screen ratios.
Experience	No closed captioning for audio "Listen to Audience's perspective from the First Row"	Accessibility	Add closed captioning or transcript
Experience	No closed captioning for video "About the Project" documentary video	Accessibility	Add closed captioning or transcript
Experience	Upcoming events feature February 28, 2019 event, which has already passed.	Currency	Update "upcoming events" to reflect current activities.

Experience >Multimedia Archive	Link not working: ” A Legacy of Creative Protest,” Sep. 7, 1962, *The Massachusetts Review*	Actionability, currency	Update link
Experience >Multimedia Archive	Hyperlinks are too small for "Must be Willing to Fill Up the Jails, King Warns," (see pages 1 and 6) Feb. 20, 1960, *Carolina Times*	Actionability, accessibility	Expand the hyperlink to minimize the degree of precise user input
Collective Sound	No closed captioning for audio "Listen to Audience's perspective from the First Row"	Accessibility	Add closed captioning or transcript
Simulation	No closed captioning for simulation experience	Accessibility	Add closed captioning or transcript
Publications	only one publication listed with no publication information	Currency	Update to reflect any existing publications and add information about the source of publication
Meet the project team	Images pixelated, not consistently centered on faces	Design	Upload high-resolution images of the same file size
Meet the project team	Perhaps does not reflect new contributors (graduate students, for instance, if they are considered contributors)	Currency, Accuracy	Update to reflect new contributors to the project
Meet the project team	Does not show full images of project team for all screen ratios	Design	Optimize the website for a variety of browsers and screen ratios.
Awards and Recognition	Pixelated image: https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/Harlan-Gradin.jpg?resize=600%2C418&ssl=1	Design	Add new photo or resize this image so not pixelated
Contact	Link to Twitter works but does not offer current content (last updated October 2017)	Currency	Update social media to show currency of project
Contact	Link to Twitter works but does not offer current content (last updated Feb 2015)	Currency	Update social media to show currency of project

USABILITY TEST RESULTS

The usability tests consisted of testing twelve (12) participants, using the task-prompts listed in Appendix E. The testing occurred in two phases, with the first phase being completed in May 2019 (6 participants), and the second phase being completed by July 2019 (6 participants). Upon completion of the first phase, a report was delivered to the vMLK project team to inform immediate revisions to the website. As such, some of the issues identified in the first round of usability testing have already been resolved (see the "Resolved Issues" section on page 21)

Each component of the usability tests lasted approximately 30-45 minutes and took place either at NC State University for local participants or via video conference for remote participants. During the testing, participants completed a pre-test questionnaire, a series of tasks, and a post-test questionnaire, each administered by a single tester. Participants were asked by the test administrator to "speak aloud" during the test, describing their thoughts and explaining their actions. Additionally, the test administrator offered prompting, which asked participants to explain their choices. The participants' navigation decisions and vocal responses were recorded using a screen recording software. The test administrator also made notes of the participants' behaviors and gestures. Below are the key insights and recommendations derived from the tests.

Pre-Test Results & Analysis

Two individuals from each user persona (Appendix B) were selected for user testing in each phase for a total of 12 participants. Among the twelve total participants, 8 participants were female while 4 participants were male. The chart below represents the participants' genders.
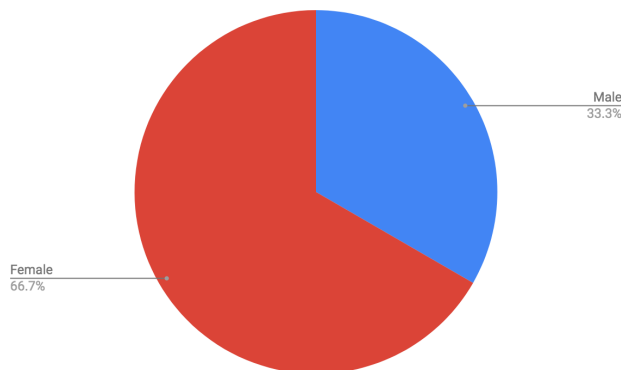

Figure 1: Gender of Usability Test Participants

The selected participants also reflected an ethnically diverse population. Among those tested, 5 participants identified as White/Caucasian, 1 participant identified as Hispanic/Latino, 5 participants identified as Black/African American, and 1 participant identified as mixed race/multiracial. The chart below represents the participants' ethnicities.
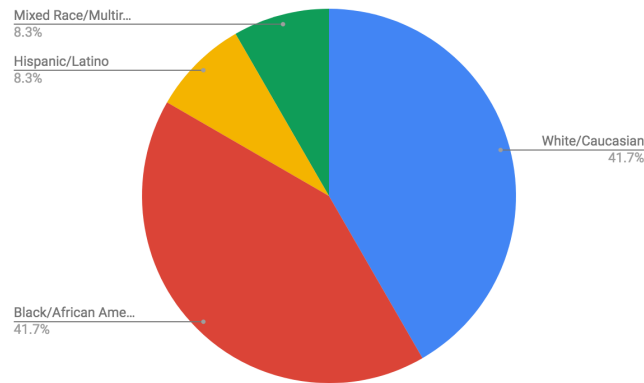

Figure 2: Ethnicity of Usability Test Participants

The majority of participants **(11 of 12) had previously heard about the vMLK project**. Participants heard about the project from a member of the project team or through their affiliation at N.C. State (course work, GTA-ship). This may influence the results of the usability test, since those familiar with the project will be able to use their prior knowledge to intuit how to best navigate the website. On the other hand, the majority of **participants (8 of 12) had not visited the vMLK project website** prior to the usability test. Therefore, results from this test will mostly reflect what some users might experience the first time that they visit a website. It may also reflect their initial impressions.
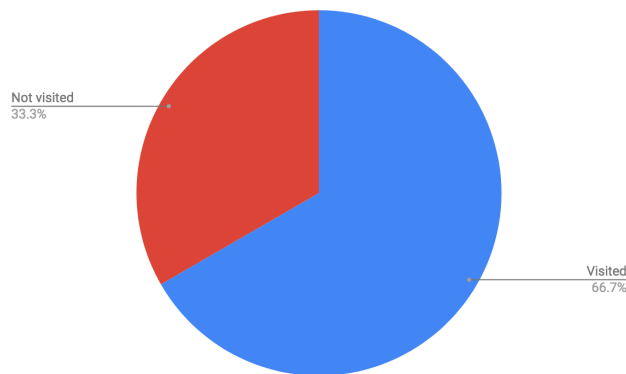

Figure 3: Participants who have previously visited the vMLK website

Problem Observations from Usability Tests

The following table offers observations made during the usability tests. Each observation has an associated "problem type" (i.e. expectation, intuitiveness, findability, accessibility, currency, design) to identify what is at stake. Further, each observation has an accompanying recommendation to inform future designs of the vMLK website.

User Persona	Observation	Problem Type	Recommendation
Administrator	One user expressed a desire for a "splash page" which introduced the user to the vMLK site and its purpose	Expectation	Consider adding a splash page or adding a fuller introduction to the main landing page.
COM 110 student	One user did not understand the difference between the "collective sound experience" and the "listening experience"	Intuitiveness	Write brief 1-sentence description of each item or place "collective sound experience" as a component of the "listening experience"
COM 110 student	One user did not understand the difference between the "simulation experience" and the "virtual reality" experience	Intuitiveness	Write brief 1-sentence description of each item OR place "virtual reality" as a component of the "simulation"
COM 110 student	One user anticipated being able to navigate the simulation	Expectation	Consider adding information about where users can go if they want to experience the simulation (and navigate the church) – i.e., D.H. VR lab.
COM 110 student	One user mentioned that they did not understand what the "Your Creative Protest" link and did not click on it.	Intuitiveness	Write brief 1-sentence description
Non-affiliated instructor	One user mentioned that they wanted the "Your Creative Protest" link to offer	Expectation	Consider a way for website

	input (they expected an interactive component)		visitors to submit their own responses to the prompts "An idea whose time has come", etc.
COM 110 student	One user clicked away from a page when it failed to load quickly	Expectation	Minimize file sizes, whenever possible, so pages load quickly
General Public	One did not understand that the videos on the site were videos (and not photos) because they were accustomed to a large "play" button being displayed in the center of the video (or for the video to automatically start playing). Example of 'play' button ⊚	Expectation, Intuitiveness	Add instructions on how to play the video or, if possible, add a "play" button in the center of the video
Non-affiliated	One user experienced frustration that the "pedagogy" section focused only on public speaking.	Expectation	N/A – the website indicates more resources will be available soon
General Public	One user experienced confusion about what "pedagogy" is because this term is not familiar to those outside of academic	Intuitiveness	Determine whether to change to a more formal term, like "Teaching" or create pathways through the website for different users.
Administrator	One user experienced frustration finding the site – they first searched for "Experiencing King" instead of the vMLK project	Findability	Add "experiencing king" as a keyword for searching
Administrator & General Public	Two users experienced confusion about the menu-option "event." One of those users clarified that they were not sure whether the "event" referred to the events of the speech or if it related to events with vMLK project.	Intuitiveness	Make it more apparent, on the home page, the purpose of the site.
Administrator & 2 members of the general Public	Three users both expressed discontent that the "events" page was actually about "past events" rather than upcoming events which they might attend. In particular, one user worried that this might imply the project was dead. Another user noted that they	Intuitiveness	Update for currency or make a note that upcoming events will be posted soon.

	liked that the "events" page had past events, but still wanted a section for upcoming events.		
Graduate Student	One user stated that the page, "Listening Experience" offered unnecessary redundancy of information on other pages	Design	Make the distinction between these pages clear or combine them
Graduate Student	One user stated that the "phases of the project" page requires too much scrolling and wished that there was an easier way to navigate it	Design	Add images or create jump/anchor links
Administrator	One user stated that they wished there were color images of each phase of the project that demonstrates how each phase is distinct from prior phases	Design	Add images for each phase.
Graduate Student	One user wished there were more publications available about the project.	Currency and/or Expectation	Update for currency or, perhaps, add information about forthcoming publications
COM 110 instructor	One user complained about the contrast between the text and the grey-beige background. They said that they wished the background was not so transparent.	Accessibility	Improve contrast by reducing the transparency of the background
COM 110 instructor	One user anticipated that the public speaking exhibitions would be listed recent to least recent	Expectation / Intuitiveness	Re-order the list or provide jump-links
Administrator	One user stated that, in some cases, the headings for websites were listed twice, creating redundancy. For instance, under "Scholarship" on the "Conference Presentations" page, the heading "Conference Presentations" is listed twice.	Design	Only list headings once
Administrator	One user stated that the design elements were not equitable across pages of the same section. For instance, under "Scholarship," some pages have large font in a grey box while other pages have small font in a grey box.	Design/Expectation	Ensure consistent design across sections of the site.

Post-Test Results & Analysis

On average, the participants **rated their experience of finding information on the website 4.167 of 5 points** with 1- indicating "very frustrating" and "5" indicating very easy. This suggests that, overall, users find the website easy to navigate and that they find the information easy to find. The ratings of all participants are summarized in the chart below.
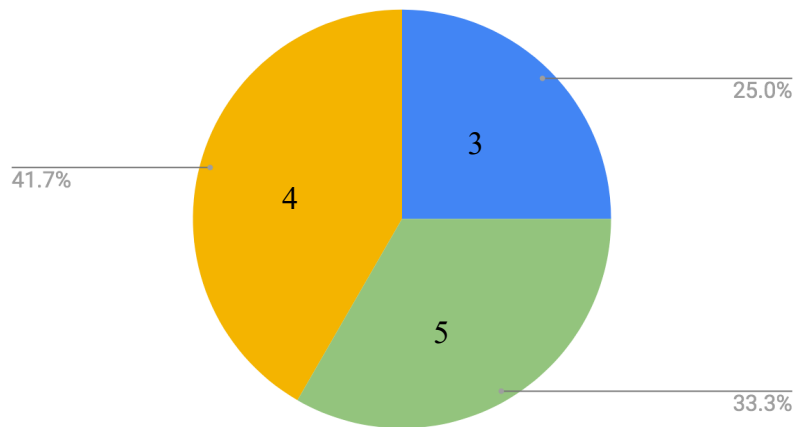

Figure 4: Ratings among Participants

When asked to explain their ratings, **several users pointed to the breadth of information available as a positive aspect**. Comments included: "there is a lot of information available," "the website met my expectations," and "the website does a really good job of catering to a variety of different needs." Additionally, several users mentioned that they liked the ease with which they can find information. This suggests that the website meets the needs of multiple user-audiences.

When asked about what they think the website does very well, **several users pointed to the design of the website as a positive aspect**. Comments included that the website "looks nice," that they liked "the layout," and the website "is easy to navigate." This suggests that the design meets users' expectations.

When asked about what the website could improve, **several users did not have a response. However, two users wanted more current information about upcoming events, and one user wanted a better introduction to the website**. This suggests that the website might not meet all users' needs in terms of finding information about the project.

Device/Browser Compatibility Test

The Device/Browser Compatibility test consisted of 11 participants and took place at NC State University. The test lasted approximately 30 minutes for each participant. During the test, participants were encouraged to explore the vMLK website on their individual devices (i.e. laptop, desktop, tablet, mobile smartphone) and to make note of their experience of the website through their device. Unlike the usability test, participants were not prompted by the test administrator to complete specific tasks or to speak aloud their responses. Instead, participants engaged in unguided exploration of the site for 20 minutes. Following this, participants took a brief survey, offering their demographics as well as information about their device, browser, and experience of the website. The findings are summarized below, but a more in-depth look at the responses can be found in Appendix G.

Among those who participated in the device/browser compatibility test, 3 participants were female, while 8 participants were male. The chart below represents the participants' gender.
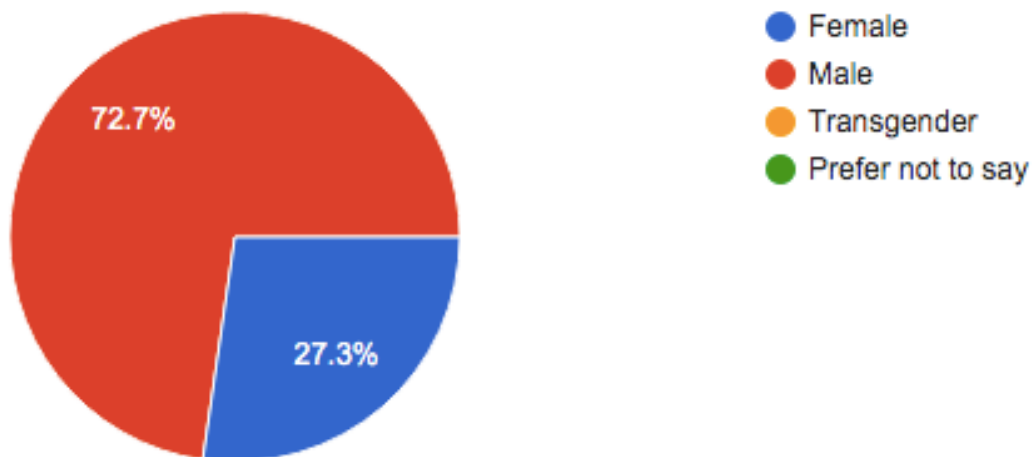

Figure 5: Device/Browser Test Participants' Gender

The participants were ethnically diverse. Among those tested, 4 participants were Black/African American, 3 participants were Mixed Race/Multiracial, 2 participants were White/Caucasian, and 2 participants were Asian/Asian American. The chart, on the next page, demonstrates the ethnic diversity of the participants.
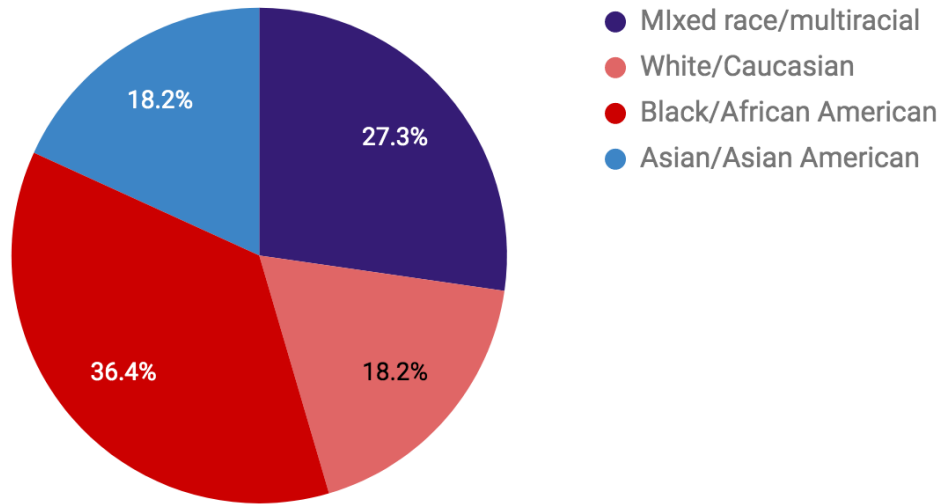
Figure 6: Device/Browser Test Participants' Ethnicity

Among those surveyed, 3 participants had previously visited the site before while 8 participants had not previously visited the site before. The chart below represents the percentage of participants who had previously visited the site. Whether participants have previously visited the site is important considering that it may influence their responses, due to familiarity with the design and location of information. However, of the three participants who had previously visited the site, two offered critical comments about the navigation.
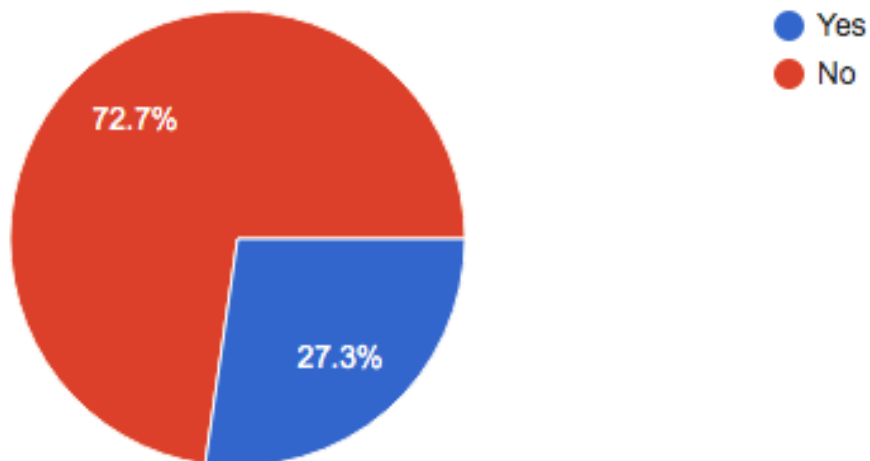

Figure 7: Device/Browser Test participants who have previously visited the site

Participants had their choice of device and browser, and all participants reported being very familiar with the device that they used. Collectively, the participants used either a laptop, tablet, or smartphone for their device and either Google Chrome or Safari for their web browser. This relative homogeneity likely results from the fact that these are the dominant devices and browsers in the United States.

Among those tested, 2 participants used a mobile phone, 1 participant used a tablet, and 8 participants used a laptop. The chart below reflects the percentage of devices used by participants in device / browser compatibility testing.
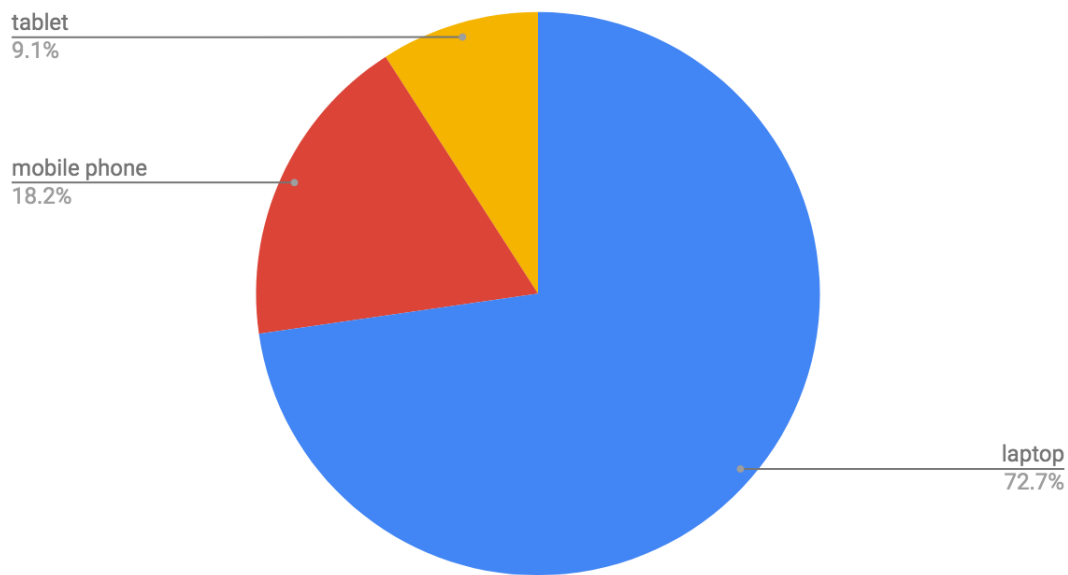

Figure 8: Participants' Devices

The browser/device compatibility rendered several insights about how to improve the website; however, only a few of the insights appeared to be device/browser specific. Instead, the majority of the insights were related to user preferences about design and needs for accessibility.

Importantly, many of the participants had positive feedback about the website. Several participants commented that the "organization" and "set up" were well-executed and that they appreciated the "VR" experience. Additionally, two different participants commented that the website evoked emotion and a sense of historical presence. Specifically, one of the participants stated, "It's a very nice website and I don't know how or why, with everything in black in white its kind of a weird feeling. A good feeling but a weird one. Kinda makes me emotional." The

other participant stated, "That it actually felt like back then." Collectively, these responses suggest that the vMLK is meeting users' needs across devices and browsers as well as fulfilling its own goals of recovering historical experiences.

In the survey, very few issues were identified. However, the following table offers these issues and provides recommendations to resolve them.

Comment	Problem Type	Recommendation
The mobile website setup was a little hard to Navigate and didn't seem as organized as the desktop.	Navigability (device specific)	Optimize for mobile browsers and variable screen ratios
Many options and sections	Navigability	Simplify the navigation and/or provide clear pathways through the website
The website is a bit dark. The background picture of the church and the bushes that's on every page makes it a teeny bit hard to read the black text that has the see through background. It's not impossible but it does distract from the words.	Accessibility	Improve contrast between background and text
The simulation experience states that you can control the experience and im sure that if you are there then you can control the experience but on my laptop I could not control it.	Expectation	Offer clarification about the simulation experience on the website versus in the VR Studio
It was overwhelming to have all the tabs under the navigation headers also at the top of the overview page in boxes. The navigation boxes on the overview pages look cool, but are repetitive. They also push the overview summaries to the bottom of the page, which seems contrary to the point of the page.	Navigability	Simplify the navigation and/or provide clear pathways through the website
The About the Project video at the bottom of the home page does not have captions, which makes it less accessible to those who need them. Having the option to speed up/slow down the video would be helpful but not necessary.	Accessibility	Add captions and more controls to the videos
some choppy browsing	Expectation, actionability	Use page speed tools insights (pages 8-9) to improve the loading speed of the site.
Distorted Image: Under the Meet the Team page - half of Max Renner's is cropped off	Design	Add properly sized, higher resolution photos.

RESOLVED ISSUES

Testing of the vMLK website developed in two phases. The first phase included a content audit of the site (with Screaming Frog web scraper, Google Page analytics, and Manual Testing) and an initial round of usability testing with six participants. As a result of the first phase, a preliminary report was delivered to key stakeholders, who began revising the vMLK website. As such, the following section contains details of already resolved issues, which no longer need addressing.

Identified using the Google Page Speed Tools

Problem	Recommendation
Large image files result in slower load time	Upload images directly through the media library to ensure that the required image sizes are available, and then insert them from the media library or use the image widget to ensure the optimal image sizes are used. Avoid using `Full Size` images unless the dimensions are adequate for their usage.

Identified in the Manual Test:

User Persona	Observation	Problem Type	Recommendation
Meet the project team	Link to Max Renner's website broken	Actionability, Currency	Update link
About>Overview	The link for awards and recognition, within this sub-page, shows "page not found" when loaded and, instead, links to "recent posts for the website: https:/vmlk.chass.ncsu.edu/about/awards-and-recognition/ https://vmlk.chass.ncsu.edu/experience/historical/timeline	Actionability, Accuracy	Update link
In the media	The MLKS's 1960 speech at White Rock Baptist, Retold article link is broken	Actionability	Update with new link or PDF of article
Contact Us	Emails fully listed, which allows spambots to "crawl" your website, collecting your email addresses to receive spam	Miscellaneous	Create contact form with captcha to prevent spambots; create a distinct email for vMLK; OR use plain text for emails

			Email [at] ncsu [dot] edu
Contact	Link to Facebook does not work	Actionability, Currency	Update link

Identified in the Usability Tests

User Persona	Observation	Problem Type	Recommendation
Administrator & COM 110 instructor	Two users expected to be able to click on the menu item and it lead them to the first item in the drop-down menu. For instance, if users click "Experience," they anticipate that they will be led to the page, "overview"	Actionability	Make drop-menu open on hover; link menu items

Appendix A: Screaming Frog Results

Missing Alt-Text: Images lacking alt-text means that screen readers cannot interpret the images:

- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/IMG_7627.jpg?resize=1000%2C667
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/IMG_7617.jpg?resize=1000%2C667
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/gallagher-dpu-wrd.jpg?resize=360%2C216&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/student-life_750xx2048-1152-0-107.jpg?resize=360%2C216&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/IMG_7627.jpg?fit=300%2C200&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/IMG_1202.jpg?fit=300%2C225&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/11/University-of-Maryland.png?fit=300%2C168&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/Experiencing_King-14.jpg?fit=300%2C180&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/ExperiencingKing-12.jpg?fit=300%2C261&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/DQ0A0150-e1548362321390.jpg?fit=300%2C218&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/DQ0A0304.jpg?fit=300%2C200&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/Harlan-Gradin.jpg?fit=300%2C209&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/IMG_7622.jpg?fit=300%2C200&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/vMLK_experience.jpg?fit=300%2C200&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/IMG_7458.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/Copy-of-DQ0A0230.jpg?fit=300%2C200&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/IMG_2693-e1543831343405.jpg?fit=300%2C225&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/DQ0A0336.jpg?fit=300%2C200&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/IMG_1214.jpg?fit=300%2C225&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/IMG_1194.jpg?fit=300%2C225&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/DQ0A0259.jpg?fit=300%2C200&ssl=1

- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/Marvin-Blanks.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/DQ0A9991-1.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/IMG_7550-e1543831158187.jpg?fit=300%2C200&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2016/01/IMG_0435-e1452872744462.jpg?fit=300%2C154&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/DQ0A0029-1-1-e1543840378507.jpg?fit=300%2C200&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/DQ0A0049-1.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/IMG_7574-e1543830899741.jpg?fit=300%2C200&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/IMG_7595.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2016/10/ExperiencingKing-14-web-16x9-768x432.jpg?fit=300%2C169&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/08/Copy-of-DQ0A0263-1.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/IMG_7617.jpg?fit=300%2C200&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2019/01/Responses-47.jpg?fit=300%2C225&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/09/whiterockbaptist_1950s.jpg?resize=50%2C50
- https://i1.wp.com/media-cache-ec0.pinimg.com/736x/fa/02/ae/fa02ae74a70d32100a7ae7425f624850.jpg?resize=50%2C50
- https://i1.wp.com/media-cache-ec0.pinimg.com/736x/fa/02/ae/fa02ae74a70d32100a7ae7425f624850.jpg?w=100%
- https://i1.wp.com/durhamcountylibrary.org/exhibits/dcrhp/images/cr013.jpg?resize=50%2C50
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2015/11/counterhistories.png?resize=50%2C50
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/white-rock-baptist-church_small.jpg?w=1500
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/Marvin-Blanks.jpg?resize=50%2C50
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/historical-white-rock-mlk.jpg?resize=736%2C496
- https://i2.wp.com/vmlk.chass.ncsu.edu/images/vMLK-Project-video.png?resize=50%2C50&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2016/01/Dr.MLK_GordonCarey_RevDouglasMooreRaceMeeting_1_021660.jpg?w=100%
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/ExhibitDQ0A0276.jpg?fit=300%2C200&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/creative-protest_small.png?w=1500
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2016/01/Dr.MLK_GordonCarey_RevDouglasMooreRaceMeeting_1_021660.jpg?resize=50%2C50
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/Speech-Reenactment_small.jpg?resize=50%2C50

- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2015/11/democracnow.png?resize=50%2C50
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/legacy-of-creative-protest_small.png?w=1500
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/wral-tv-interview_small.jpg?resize=50%2C50
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/revolt-without-violence_small.png?w=1500
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/09/audio_balcony.jpg?resize=50%2C50
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/11/MLK-White-Rock.jpg?resize=600%2C429
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/10/cr013.jpg?fit=300%2C215&ssl=1

- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/11/MLK_MainSt._021660.jpg?fit=300%2C197&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/09/audio_balcony.jpg?resize=360%2C216&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/Royal-Ice-Cream-Sit-In.jpeg?fit=300%2C242&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/Royal-Ice-Cream-Counter-Histories.jpg?fit=300%2C169&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/WhiteRockBaptist_1950.jpg?fit=241%2C300&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/11/MLK-White-Rock.jpg?fit=300%2C215&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/ExperiencingKing-4.jpg?fit=300%2C192&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/11/Royal-Ice-Cream-Sit-In.jpg?fit=300%2C300&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/12/Carolina_Times_1958Aug16_DigitalNC.jpg?fit=300%2C189&ssl=1
- https://i2.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/09/audio_balcony.jpg?fit=300%2C199&ssl=1
- https://i0.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2018/10/MLK-White-Rock.jpg?fit=300%2C202&ssl=1
- https://i1.wp.com/vmlk.chass.ncsu.edu/wp-content/uploads/2014/11/White-Rock-2014.jpg?fit=300%2C200&ssl=1

Duplicate Pages/Page Titles: These duplications mean that search engines, like Google, do not know which page to prioritize.

- https://vmlk.chass.ncsu.edu/events/
- https://vmlk.chass.ncsu.edu/category/events/

- https://vmlk.chass.ncsu.edu/category/events/exhibitions/
- https://vmlk.chass.ncsu.edu/events/exhibitions/

- https://vmlk.chass.ncsu.edu/category/events/lectures-and-presentations/

- https://vmlk.chass.ncsu.edu/events/public-lectures-and-presentations/

- https://vmlk.chass.ncsu.edu/category/events/public-speaking/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/

- https://vmlk.chass.ncsu.edu/category/scholarship/
- https://vmlk.chass.ncsu.edu/scholarship/

- https://vmlk.chass.ncsu.edu/category/pedagogy/
- https://vmlk.chass.ncsu.edu/pedagogy/

- https://vmlk.chass.ncsu.edu/listen/fill-up-the-jails-speech-reenactment/
- https://vmlk.chass.ncsu.edu/experience/listening/fill-up-the-jails-speech-reenactment/

- https://vmlk.chass.ncsu.edu/listen/audiences-perspective-from-the-balcony/
- https://vmlk.chass.ncsu.edu/experience/listening/audiences-perspective-from-the-balcony/

- https://vmlk.chass.ncsu.edu/listen/audience-perspective-from-the-floor/
- https://vmlk.chass.ncsu.edu/experience/listening/audiences-perspective-from-the-floor/

Duplicate Pages/Page Titles: These duplications mean that search engines, like Google, do not know which page to prioritize in their results.

- https://vmlk.chass.ncsu.edu/experience/listening/fill-up-the-jails-speech-reenactment/
- https://vmlk.chass.ncsu.edu/listen/fill-up-the-jails-speech-reenactment/
- https://vmlk.chass.ncsu.edu/experience/historical/a-creative-protest/
- https://vmlk.chass.ncsu.edu/whiterockbaptist_1950/
- https://vmlk.chass.ncsu.edu/white-rock-2014/
- https://vmlk.chass.ncsu.edu/experience/virtual-reality/vr-from-the-first-row/
- https://vmlk.chass.ncsu.edu/vmlk-creates-a-2015-2016-pilot-project-for-immersive-learning-environments/
- https://vmlk.chass.ncsu.edu/comweek2015/
- https://vmlk.chass.ncsu.edu/august-2016-vmlk-exhibition-showcase-at-chass-lightning-rod/
- https://vmlk.chass.ncsu.edu/vmlk-exhibition-at-nc-state-universitys-friends-and-family-weekend-2017/
- https://vmlk.chass.ncsu.edu/vmlk-at-university-of-wisconsins-rhetorical-leadership-lecture-series/
- https://vmlk.chass.ncsu.edu/vmlk-at-university-of-wisconsin/
- https://vmlk.chass.ncsu.edu/vmlk-at-the-african-american-history-culture-and-digital-humanities-conference-at-the-university-of-maryland/
- https://vmlk.chass.ncsu.edu/
- https://vmlk.chass.ncsu.edu/university-of-alabamas-hidden-humanities-lecture/
- https://vmlk.chass.ncsu.edu/listen/speakers-perspective/
- https://vmlk.chass.ncsu.edu/southern-colloquium-on-rhetoric/
- https://vmlk.chass.ncsu.edu/smithsonian-accelerate-exhibition/
- https://vmlk.chass.ncsu.edu/vmlk-project-featured-at-experiencing-king-walking-tours/
- https://vmlk.chass.ncsu.edu/search/
- https://vmlk.chass.ncsu.edu/experience/historical/royal-ice-cream-sit-in-documentary/
- https://vmlk.chass.ncsu.edu/royal-ice-cream-counter-histories/
- https://vmlk.chass.ncsu.edu/experience/historical/rhetorical-history-of-the-speech/
- https://vmlk.chass.ncsu.edu/events/public-speaking-exhibitions/
- https://vmlk.chass.ncsu.edu/events/public-lectures-and-presentations/

- https://vmlk.chass.ncsu.edu/category/events/lectures-and-presentations/
- https://vmlk.chass.ncsu.edu/scholarship/public-address-and-digital-humanities/
- https://vmlk.chass.ncsu.edu/55thanniversary/
- https://vmlk.chass.ncsu.edu/vmlk-project-presented-at-the-101st-association-for-the-study-of-african-american-life-and-history-annual-meeting/
- https://vmlk.chass.ncsu.edu/vmlk-experience-featured-at-the-2016-southern-colloquium-on-rhetoric/
- https://vmlk.chass.ncsu.edu/oct-2016-white-rock-baptist-church-celebrates-150th-anniversary/
- https://vmlk.chass.ncsu.edu/news-14-wral-5-coverage/
- https://vmlk.chass.ncsu.edu/marvin-blanks/
- https://vmlk.chass.ncsu.edu/wp-login.php?action=lostpassword
- https://vmlk.chass.ncsu.edu/experiencing-king-at-nc-state/
- https://vmlk.chass.ncsu.edu/vmlk-project-featured-at-experiencing-king-walking-tours/experiencingking-14-web-16x9-768x432/
- https://vmlk.chass.ncsu.edu/upcoming-event-join-us-on-february-16-to-commemorate-the-55th-anniversary-of-fill-up-the-jails/
- https://vmlk.chass.ncsu.edu/depaul-universitys-writing-and-rhetoric-without-borders-series-and-presidents-free-speech-series/
- https://vmlk.chass.ncsu.edu/scholarship/public-lectures-and-presentations/
- https://vmlk.chass.ncsu.edu/experience/historical/timeline/2008-marker/carolina_times_1958aug16_digitalnc/
- https://vmlk.chass.ncsu.edu/experience/listening/audiences-perspective-from-the-podium/
- https://vmlk.chass.ncsu.edu/experience/listening/audiences-perspective-from-the-floor/
- https://vmlk.chass.ncsu.edu/listen/audience-perspective-from-the-floor/
- https://vmlk.chass.ncsu.edu/experience/listening/audiences-perspective-from-the-first-row/
- https://vmlk.chass.ncsu.edu/experience/listening/audiences-perspective-from-the-balcony/
- https://vmlk.chass.ncsu.edu/listen/audiences-perspective-from-the-balcony/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/activity-two/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/assignment-one/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/activity-two-identifying-modes-of-persuasion/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/activity-three-listening-to-the-speech/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/activity-one/
- https://vmlk.chass.ncsu.edu/pedagogy/public-speaking/2481-2/
- https://vmlk.chass.ncsu.edu/fall-2018-public-speaking-exhibitions-at-hunt-library/
- https://vmlk.chass.ncsu.edu/fall-2016-public-speaking/
- https://vmlk.chass.ncsu.edu/academic-year-fall-2014-spring-2015/
- https://vmlk.chass.ncsu.edu/55th/
- https://vmlk.chass.ncsu.edu/vmlk-at-rit/

Appendix B: User Personas

Testing the usability of the website required identifying user personas. User personas were developed by performing a content audit of the website as well as informally interviewing members of the vMLK project team about who would most likely use the website. The user personas informed the design of the usability test. Specifically, user personas produced imagined scenarios for why a particular user might visit the vMLK website, and these imagined scenarios were used to write usability test prompts (see Appendix B-D). User personas are described below.

User 1 –a COM 110 instructor in the Communications MS program or CRDM Ph.D program at NCSU. User 1's class will visit the vMLK exhibit. However, user 1 wants to prepare to introduce vMLK to their class before they visit. User 1 is visiting the vMLK website to learn more about the project and what their students will experience when they visit the exhibit. User 1 also hopes to find teaching tools for incorporating vMLK into their course.

User 2 -- a graduate student in the MS program or the CRDM Ph.D. program at NCSU. User 2 plans to write a paper on sonic rhetorics in public history projects. User 2's primary purpose for visiting the vMLK website is to learn about the process of creating vMLK.

User 3 –an administrator at NC State University, who wants updates about the efforts of the vMLK project team. User 3 specifically wants to see demonstration that the public is engaging with vMLK and that the vMLK website is communicating with the public about upcoming events.

User 4 - first-year undergraduate student in COM 110 at NCSU. User 4's class will visit the vMLK exhibit at Hunt Library, but User 4 wants to learn more about vMLK before attending. User 4 is visiting the vMLK website to understand what the vMLK project is and to learn more about the history of Martin Luther King, Jr.

User 5 – a member of the general public. User 4's read a news article about the vMLK website and wants to both learn more. User 2's primary purpose for visiting the vMLK website is to read descriptions about the project and to find information about upcoming events.

User 6 – an instructor at a non-N.C. State affiliated institution. User 6 heard about the vMLK project at a conference and is looking to integrate a component of the project into their course. User 6's primary purpose for visiting the site is to find pedagogical resources.

Appendix C: Usability Test Consent Script

Before each usability test, participants were read the following script and asked to consent to participation in the study. Participants were not compensated for participation in the study and participation was voluntary.

Script
Hello, and thank you for agreeing to participate in a usability test for the vMLK website.

The purpose of the test is to identify areas of success and improvement for the vMLK website. For the next fifteen minutes, you will complete tasks associated with a number of prompts. You will use the vMLK website to attempt to complete each task. As you complete these tasks, I ask that you offer feedback on your impressions. Specifically, I will be looking for feedback on your strategy for navigating the website, what you are trying to find, where you are trying to find it, and what your overall experience is navigating the website.

During this test, I am going to ask you to vocalize your process. As you complete tasks, I want you to state, out loud, what your thoughts are and what you are doing. You can additionally offer explanation of why are you doing what you are doing.

While you complete this test, I will record and take notes on this session. Nevertheless, we will not publish any personal identifiable information about you or your participation in this usability test. Further, all materials will be kept in a password protected Google Drive folder, which only members of the vMLK team will have access.

Do you consent to participate? (ask for verbal consent)
[ ] yes
[ ] no

Appendix D: Usability Pre/Post-Test Questionnaires

The pre- and post- test questionnaire allow for the collection of data in addition to observation. This is particularly useful if the vMLK eventually wants to expand the usability test (to consider other variables) or if they want to draw insights about how particular variables might have affected users' experience of the website during testing. Results transcribed and summarized [here](#).

Pre-Test Questionnaire:
1. What is your status at the university (select all that apply)?
   a. Undergraduate student
   b. Graduate student
   c. Graduate Student Instructor
   d. Contingent staff (adjunct instructor, lecturer)
   e. Faculty
   f. Administration
2. Had you heard about the vMLK project prior to this usability test?
   a. Yes
   b. No
3. If yes to Question 2, how did you hear about the vMLK project?

4. Have you ever visited the vMLK website?
   a. Yes
   b. No
5. If yes to Question 4, what was your purpose for visiting?

Post-Test Questionnaire
1. Rate your experience finding information on the vMLK website (1 - very frustrating, 2- slightly frustrating, 3- average, 4- slightly easy, 5- very easy)
   a. Explain your rating

2. What do you think that the vMLK website does well?

3. What do you think that the vMLK website can improve?

Appendix E: Usability Test Prompts

The following prompts were derived from the user personas, listed in Appendix A. Prompts were limited to four tasks so that tests would only last thirty minutes. This was particularly important considering that participants were not being compensated for their time. The purpose of the usability test was to identify whether users could easily and effectively navigate through the site, assess whether users were about to complete their goals, and identify challenges in finding information on the website.

Prompts for Instructor
1. Your class will be visiting the vMLK experience at Hunt Library, and you want to (in advance of your class' visit) see exactly what your students will experience. How would you find information about that experience?
2. You need to introduce your students to the historical context for the vMLK exhibit, but you do not know much about the Martin Luther King, Jr. What part of the website do you think will be most helpful?
3. You are not sure how to integrate the vMLK experience into the curriculum. How would you use the website to find information about how to do this?
4. You want to direct your students to the vMLK website for additional information about the vMLK experience. Where, on the website, would you be most willing to link them?

Prompts for Graduate Researcher
1. You are writing a conference paper about the use of the rhetoric of sound in public history projects. Where you would go to learn about the development of the vMLK project?
2. You want to find information about publications related to this project. How would you do this?
3. In developing the conference paper, you want to understand what rhetorically analyze the vMLK listening experience. Where would you go to perform the rhetorical analysis?
4. You want to contact a member of the vMLK team to interview them about the development of the vMLK project. How would you approach contacting the team? Who would you contact?

Prompts for Administrator
1. Your program has offered some funding or support to the vMLK project, and you want to see updates about the vMLK project. Where would you navigate to, on the website, to find this information?
2. You are hosting visitors to the NC State Campus and hope to bring them to an event that showcases the vMLK experience. Where would you find out about upcoming events?

3. You are preparing a report about faculty projects in CHASS. You want to provide a summary of the accomplishments of the vMLK project. Where will you find that information?
4. You noticed something that concerns you about the vMLK website. How will you make contact with the vMLK team to address your concern? Who will you make contact with?

Prompts for Undergraduate Student
1. Your COM 110 class will be visiting the vMLK experience at Hunt Library, and you want to (in advance of your class' visit) see exactly what you will experience. How would you find information about that experience?
2. Your instructor has asked you to write a reflection about the rhetorical situation (context, speaker, audience, subject) of Martin Luther King's Fill Up The Jails/Creative Protest speech. Where on the website would you go to find information about this?
3. You were not able to attend your COM 110 class visit to the vMLK experience, so your instructor recommended that you visit the website to interact with the vMLK experience. Where would you go to view the simulation? Where would you go to listen to the speech?
4. Where would you go to watch the documentary about the Royal Ice Cream Parlor?

Prompts for Member of the General Public
1. You heard about the vMLK website through a newspaper article, and you want to learn more about this project. How would you find this information?
2. You want to hear the "Fill Up the Jails/Creative Protest" speech that the vMLK project is focused on. Where on the website would you go to listen to this speech?
3. You are interested in attending a public exhibition of the vMLK project. Where would you find dates for upcoming exhibitions?
4. You want to ask a question about something you found on the vMLK website. Where do you go to ask this question?

Prompts for Non-Affiliated Instructor
1. You want to introduce the vMLK project to students in your course. Where would you go on the website to find strategies for doing so?
2. You hope to assign an article, as a reading assignment, related to this project. How would you search for publications about this project?
3. You would like your students to explore this website as a resource. What, on this website, would you have them interact with?
4. You would like your students to have historical context for the "Fill up the Jails/Creative Protest" speech. Where on the website would you look for historical context?

Appendix F: Device / Browser Compatibility Survey

The following form is anonymous. We do not wish to collect any name, email address, user ID, or any other personal identifier.

1. Which ethnicit(y/ies) do you most closely identify with?
   o White/Caucasian
   o Black/African American
   o Native American/Alaskan Native
   o Hispanic/Latino
   o Asian/Asian American
   o Mixed Race/Multiracial
   o Other

2. Which gender do you most closely identify with?
   o Male
   o Female
   o Transgender
   o Other

3. Have you ever visited the vMLK website before?
   o Yes
   o No

4. While you were visiting the vMLK website, did you encounter any issues on your device? (examples include: distorted images, links/menus not working, broken links). Please describe all issues that you encountered.

5. What did you like (or find helpful) about the vMLK website?

6. What did you dislike (or find unhelpful) about the vMLK website?

7. What kind of device are you using?

8. What is the make/model of the device you are using (e.g.: Lenovo Thinkpad, iPhone XR)?

9. What kind of web browser are you using (e.g. Safari, Firefox, Internet Explorer, Google Chrome)

10. Rate your familiarity with this device with 1 being not very familiar and 5 being very familiar? (In other words, how comfortable are you using this device to interact with websites)

11. (Optional) Is there anything additional that you would like to share with vMLK team about your impressions of the website or your answers to this survey?

Appendix G: Device / Browser Compatibility Results

What did you like (or find helpful) about the vMLK website?	What did you dislike (or find unhelpful) about the vMLK website?	While you were visiting the vMLK website, did you encounter any issues on your device? Please describe all issues that you encountered.	What kind of device are you using	What is the make/model of the device you are using (e.g.: Lenovo Thinkpad, iPhone XR)?	What kind of web browser are you using?	(Optional) Is there anything additional that you would like to share with vMLK team about your impressions of the website or your answers to this survey?
the virtual reality was pretty cool		no	laptop	MacBook Air	Safari	
the organisation of the interface		some choppy browsing	laptop	MacBook Pro 2019 13"	Safari	
It was very interesting	The mobile website setup was a little hard to Navigate and didn't seem as organized as the desktop	No	mobile phone	iPhone xs max	Safari	
That it actually felt like back then	Many options and sections	No issues	laptop	DELL XPS-13	Google Chrome	Maybe to organize the sections on top, that would be easier to the website visitors.
everything	none	no	laptop	DELL	Google Chrome	none
The website has a very interesting setup and is very clean cut	The website is a bit dark. The background picture of the church and the bushes that's on every page makes it a teeny bit hard to read the black text that has the see through background. It's not impossible	No nothing was broken	laptop	Dell	Google chrome	It's a very nice website and I don't know how or why, with everything in black in white its kind of a weird feeling. A good feeling but a weird one.

	but it does distract from the words.					Kinda makes me emotional.
I liked how it had different links to explore more and watch videos	Nothing	No issues	laptop	IPAD	Chrome	I liked it a lot!
I liked that the overview of the tabs were actually what was on the page.	The simulation experience states that you can control the experience and im sure that if you are there then you can control the experience but on my laptop I could not control it.	No	laptop	MacBook Air 2018	Safari	
The VR section	N/A	No	mobile phone	iPhone 8	Google Chrome	
The virtual reality experience was cool	It would be better if we can control the VR not just watching the controlled video	No	laptop	Samsung laptop	Google Chrome	
The navigation bar was very easy to use and made navigating the website easier.	It was overwhelming to have all the tabs under the navigation headers also at the top of the overview page in boxes. The navigation boxes on the overview pages look cool, but are repetitive. They also push the overview summaries to the bottom of the page, which seems contrary to the point of the page. The About the Project video at the bottom of the home page does not have captions, which	Distorted Image: Under the Meet the Team page - half of Max Renner's is cropped off	laptop	Lenovo Laptop	Google Chrome	I like how much information is available through this website. It links to different articles and information which is great. Maybe add how someone could get involved if they want to do so.

	makes it less accessible to those who need them. Having the option to speed up/slow down the video would be helpful but not necessary.					