

Usability Testing Report

annarborartcenter.org

<http://www.annarborartcenter.org>

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Executive Summary

A usability test was administered for the annarborartcenter.org website to identify user experience challenges and develop a prioritized set of recommendations to address those problems.

Particularly troublesome usability issues revealed during testing included:

- Poor readability on both the website and the web application which prevented users from accessing information.
- Fatigue and irritation at the excessive time needed to fill out forms for creating an account, registering for classes, or purchasing memberships. Some forms contained only a single question for the user.
- Unclear directions for users navigating through and between processes in the shopping application, resulting in significant confusion and errors.
- Poor integration between database values and displays on both the main site and within the shopping application. For example, users could not tell which classes were full until they proceeded all the way from the 'Upcoming Classes' page on the website to the corresponding class page in the shopping application.
- Strong negative reactions to the 'Calendar' component that is so critical to the website's functionality. Both the layout and the filters caused significant confusion for users.
- An overly-complex display in the utility navigation menu which caused users to miss seeing items less than a quarter of an inch from their cursors.
- A variety of confusing processes built into the task of subscribing to the newsletter. Users consistently believed they had failed this task when they hadn't.
- No comprehensive list of artists to search, contradicting strong user expectations.
- An overly-generic and haphazard presentation of juried competitions for artists, causing users to completely miss the requirement of an entry fee, for example.

This report addresses these high-priority issues, as well as issues considered medium and low priority. Specific solutions are offered for each problem discussed.

Description of Test

Dates of testing:	1/21/16 – 1/31/16
Testing locations:	Participants' homes, Testers' homes, Biggby Coffee
Number of users tested:	6
Length of each test:	60-90 minutes
Platforms tested on:	Mac OS 10.8.5 and 10.11, Windows 7 and 10, Chrome OS 47.025
Browsers tested on:	Safari, Chrome, Firefox, and Internet Explorer

Priority Levels

Solutions to problems observed during usability testing are sorted into three priority levels:

High Priority: Issues discussed at this level impacted a large number of users to a significant degree. These issues affected critical tasks and caused high levels of frustration. These problems should be resolved as soon as possible.

Medium Priority: These issues also affected most users, but were less disruptive to important tasks and processes. Users were slowed down by these problems, but alternative routes and approaches could still be found. If resources are available, addressing these issues will improve users' overall satisfaction.

Low Priority: Issues at this level affected a smaller number of users, often as a result of demographics. Older users, for example, were slightly more likely to have problems at this level. These problems were relatively minor for all users, neither preventing task completion, nor inciting a strong negative emotional response.

Recommended Changes

Overall – Website and Web Application

High Priority:

- **Enlarge Text to Improve Readability**
Users both missed information and complained about eye strain during testing. Set default font size to 16px to accommodate users over the age of 40 and allow users of all ages to view text from a healthy distance.
- **Darken Highlighted Text**
Some users missed text links displayed in orange, even when the font size was quite large. Color testing at juicystudios.com revealed the luminosity ratio of this particular orange on the white page to be 3.00:1. Choose a darker highlight color to meet current WCAG (Web Content Accessibility Guidelines) recommendations, which are set at 4.5:1.

Medium Priority:

- **Empower User to Correct Errors**
Accompany any error message with instructions on how to correct the error. Position those instructions next to the error message and either provide a link to the area (or page) where the error occurred, or redirect the user there automatically.
- **Inform the User When the Server is Processing a Request**
Users were at times concerned when a submitted form caused little or no change to the interface. When a form is submitted post a message such as, 'Server processing request...' Additionally, dim the submit button to indicate that no further action is required. Alert the user when the submission is complete, as well.
- **Use Labels Next to Input Fields on Forms**
One user complained that formatting instructions for forms on the main site disappear as soon as a person begins to type. Instead of placeholder text, include labels to indicate desired formats for input fields.

Low Priority:

- **Create Vertical Navigational Aids**
One user missed content because the laptop used for testing cut the fold too short. Include 'up' and 'down' arrows in a fixed position to the side of the page to make users aware of extended page lengths.
- **Make Clickable Marketing Images Links, Not Enlargements**
A marketing image that only enlarges when clicked, as is common throughout the site, contradicts user expectations.

Overall – Web Application

High Priority:

- **Consolidate Forms**

Forms with few questions spread over many pages were consistently met with dread. Currently, all tasks are preset to build data structures progressively from page to page, regardless of context or meaning. The data collected for the tasks tested – ‘Create an Account’, ‘Enrollment’, and ‘Membership’ – lacks any causal relationships. For example, a user’s phone number is not dependent on his/her last name. So creating a data structure that requires a phone number before a last name poses an unnecessary burden for users who must page forward after, in some cases, only a single question.

Other than payment, all data should be collected on a single form page, stored in a single data structure, and sent to the ‘Payment Information’ page at the end of the ‘Shopping Cart’ process. This would allow a user to edit any answer before payment without harming overly-delicate data structures. Changes on the form that affect price can change dynamically as they are inputted, and each element can be validated as needed.

- **Create a Prominent ‘Cancel’ Button**

The small, gray ‘back’ button currently at the bottom of the ‘Payment Information’ page is uninformative and easy to miss. When a user cannot easily retreat in a process, as is the case on the ‘Payment Information’ page, provide a large, high-contrast button that reads, ‘Cancel Order and Return to Membership Page’. This will let the user know that leaving the payment page will cancel their order.

Medium Priority:

- **Provide an Obvious and Reliable Link from the Web Application to the Main Site**

The rare participants who attempted to use the logo on the shopping app to navigate to the main site, found the link was inactive if their browsers were set to block pop-up windows. To accommodate all users, place a large, high-contrast button next to the logo that reads, ‘Back to the Ann Arbor Art Center Home Page.’ To circumvent pop-up blocking, leave out the target = “_blank” attribute for the link element.

Low Priority:

- **Create a Unique Header for the Web Application**

Users did not distinguish the difference between the shopping application and the main site. Create a title for the application that clarifies its relationship to the main site, such as, ‘Ann Arbor Art Center Shopping’. Likewise, change the ‘home’ label on the application’s navigation menu to ‘Shopping Home’.

- **Rename the ‘Payment Information’ Page, ‘Checkout’**

Button labels like ‘Proceed to Checkout’ frequently misled users to believe they were closer to the end of processes than they were. Use the label ‘Checkout’ to more accurately convey that this is the final step. Only use this label for the actual ‘Checkout’ page and the button that links to it.

Create an Account Process – Web Application

High Priority:

- **Create a Single Form for Each Family Account**
Often users dismissed the button labeled 'Create Account and Add Family Member' at the end of this process, forcing them to return to the task when they attempted to enroll an unregistered child in a class. Include the option to add family members on the first page, right after the user inputs his/her own name and personal information. Code the form to dynamically create additional input fields for as many family members as the user would like to add.

Medium Priority:

- **Facilitate User's Autonomy with Navigation Options**
If a user is required to create an account while they are attempting to access another process, such as 'Enrollment', the system forces them back into the original process once the account creation is complete. Instead of constricting users, provide them with two links – one to continue browsing and another to proceed into the originally-attempted process.
- **Explain or Remove Unusual Questions**
Users were puzzled, amused, or annoyed by seemingly-irrelevant requests, such as the name of the user's cell phone carrier and alternate user logins. Purge any questions that aren't truly necessary. And if a question seems likely to cause confusion, explain why the information is needed.
- **Purge Redundancies**
Requiring an email address twice – once on the 'Personal Information' page, and again on the 'Account Information' page, annoyed users during testing, particularly right after subscribing to the newsletter with that same email. Revise databases, if needed, to ensure users aren't asked to duplicate entries.
- **Save Space by Removing Emergency Information for Minors**
Only request information about emergency contacts and other issues concerning minors during class enrollment. Store this information in a database so the user does not need to input it again unless they wish to edit it.

Low Priority:

- **Keep Forms Consistent**
If the 'add family member' form is accessed from the 'Account Options' page instead of from the 'Create an Account' process, a slightly different set of questions is used. This form requires extra information such as a landline number and emergency contact information. Make sure forms used for editing existing accounts and processes are identical in content, regardless of origin.
- **Only Require Data That Users Are Guaranteed to Have**
Under 'Contact Information', not all users will be able to provide the required cell phone number. Frame questions in general terms as much as possible to account for atypical users. For example, rephrase the request above to read, 'best phone number to reach you at'.

Enrollment Process – Web Application

High Priority:

- **Indicate Full Classes on the Main Site**
Users consistently expressed disappointment and frustration at being led to believe they could register for a class on the 'Upcoming Classes' page of the main site, only to be stopped short with a 'class full' alert on the corresponding 'Programs' page of the web application. Create a 'Class Full' banner to display over classes that are full in the database. With a banner, users won't feel as if they've been led on, and they will still be able to view the full range of classes offered.
- **Include an Encouraging Message for Full Classes**
If a class is full, encourage users to seek it out in the future. If a future session for the class has been determined, include details about it in the message. If the information is not known, encourage users with a message like this: 'Check back next month for new classes!' Include a link to the 'Subscribe' page so users can stay informed through the newsletter, as well.
- **Confirm Filter Settings for the 'Program Search' Page**
Two users of this page erroneously concluded that no classes were available for a child in the age range they sought. Confirm that the filter parameters on the 'Program Search' page are coded correctly so that class availability is accurately represented.
- **Save Database Changes for the End of Processes**
The 'Add to Cart' button is coded to decrement quantities in the database inversely as a user clicks the 'Add to Cart' button. If an item is accidentally added too many times, this too may cause a class to appear full when it is not.

Medium Priority:

- **Remove Page Forward and Backward Links when Pages Are Unavailable**
One user repeatedly clicked inactive 'previous/next' links on a search-results page. The user had no way to know that the links turn blue when they are active. Removing links to non-existent pages in either direction will prevent user frustration.
- **Use Consistent Alignment on the Program Search Page in the Web Application**
Columns on this page are right, left, and center-aligned, straining readability for users. Choose left-alignment for all columns to support visual scanning.

Membership Process – Web Application

High Priority:

- **Clarify Navigation**
Failing to find another way to navigate forward (after retreating in this process), one subject used the 'Add to Cart' button as a navigational device. This maneuver added multiple memberships to the cart, as well as cryptic error messages. Provide large, high-contrast buttons with 'backward' and 'forward' arrows to show users where they can go in a process. If the buttons are missing, the user will be more likely to conclude that any backward motion will cause problems with their order.

Calendar

High Priority:

- **Name the Calendar, 'Calendar'**
Let users decide what to do with the 'Calendar' by emphasizing, rather than obscuring, its singularity. Replace the global link labeled 'Events' with the more inclusive label, 'Calendar'. Cross-link the 'Calendar' from all sections that would normally refer to it, such as 'Education' and 'Exhibits'.
- **Consistently Label the Calendar, 'Calendar'**
A pre-filtered calendar display presented as a unique page, as is seen on the 'Exhibitions Calendar' page, conceals the functionality of the component. This prompts users to navigate when they only need to filter their current search. Keep the label consistent regardless of the settings.
- **Present the 'Calendar' Contextually**
If the 'Calendar' is accessed from the global navigation menu of the site, display the page with simple instructions about how to use its filters. If it is accessed from anywhere else, display the page to reflect what the user is likely to be searching for based on their page of origin. For example, if a user accesses the 'Calendar' from the 'Education' section, display a list filtered by the 'Classes' category.
- **Revise Main Search Categories**
Users struggled to parse differences between labels as close as 'exhibit' and 'exhibitions' throughout all tasks. Categories should allow as little semantic overlap as possible. Based on observations during testing, the following categories are recommended:
 - **Events**
Fundraisers, parties, movies, and lectures sponsored by the Ann Arbor Art Center, both on and offsite.
 - **Exhibits and Shows**
Temporary exhibitions at, or sponsored by, the Ann Arbor Art Center.
 - **Classes**
Current and upcoming workshops and classes.
 - **Camps**
Summer, winter, and spring break camps. Separating camps from classes assists parents who use camps for both child care and enrichment.
- **Add Appropriate Sub-Categories**
When a main category is selected, reveal a menu of pertinent sub-categories. At the same time, dim the unselected categories to keep the user oriented. When appropriate, add a third tier of sub-categories. Include a 'Clear All Filters' button next to the filter control.

The following is a suggested scheme for these filters:

Filter Level 1:

Events

Filter Level 2:

Date range

Location

Celebrations

Lectures

Film Screenings

Artist meet and greet

Filter Level 3:

Month – Year (two drop-down menus)

117 Gallery

Aquarium

Off-site

Filter Level 1:

Exhibits and Shows

Filter Level 2:

Date range

Location

Artists Exhibiting

Media Exhibited

Filter Level 3:

Month – Year (two drop-down menus)

117 Gallery

Aquarium

Artist 1

Artist 2

Artist 3...

Painting

Drawing

Ceramics

Photography

Installation...

Filter Level 1:

Classes

Filter Level 2:

Age range

Date range

Days of the Week

Media

Instructor

Filter Level 3:

5-9

10-12

Teen

Adult

Month – Year (two drop-down menus)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

Clay/Ceramics

Drawing

Painting

Drawing

Textiles

Digital Arts

Instructor 1

Instructor 2

Instructor 3...

- NOTE: A 'days of the week' search is included to assist parents juggling complex schedules.

Filter Level 1:	Filter Level 2:	Filter Level 3:
<i>Camps</i>	Age range	5-9
		10-12
		Teen
	Date range	Month – Year (two drop-down menus)

- NOTE: As camp offerings are lower in volume than other categories, fewer filter options are presented to prevent over-constriction in searches.
- **Allow Better Control of the Date-Range Filter**
The current date filter on the 'Calendar' page prioritizes Ann Arbor Art Center events over the sequencing of the Gregorian calendar. This conflicted with users' linear conception of time, causing both distress and amusement. In the revised model, a user would be offered two drop-down menus – one with the twelve months of the year, and another with the current year and the following year. The user would adjust these two menus to set a starting date for the items sought.

For example, a user looking for an art class to coincide with the following school year could set the month filter to 'September' and the year to '2016'. Only classes overlapping this time frame would be displayed. It is highly unlikely a user would require anything more precise than this.
- **Use a Grid for the Calendar Layout**
The current page's lack of uniformity and hierarchy defy Gestalt principles of perception, undermining visual comprehension and significantly impeding searches. Display each calendar item in a uniformly-sized box, either rectangular or square, but not both, on a single page. Arrange these units on a grid with regularly-spaced gutters to provide visual 'resting' spots. Keep internal layouts consistent for each category.

Medium Priority:

- **Make the Boxed Unit a Link**
Link the entire 'box' to the appropriate description page. A larger target supports users with disabilities, as well as users on mobile devices
- **Include 'Back to Calendar' Links on Each Description Page**
Maintain users' filter settings so they can return to the same spot they left off at on the page. Easy back-and-forth navigation will strongly support users' searches.

Low Priority:

- **Distinguish Main Search Categories with a Header, Not Color**
Currently, color is used to signify the main categories on the 'Calendar'. This is of no use to color-blind users, and it encourages over-interpretation from color-sighted users, as occurred during testing. Moreover, the legend offered in the filter control disappears as soon as the menu is not in use, forcing users to rely on their short-term memory to apply a color's meaning. Instead, include a large header indicating which main category is being displayed.

Utility Navigation Menu

High Priority:

- **Include a User Login/Create Account Box**
The utility navigation menu is meant to host globally-available, utilitarian elements, such as a login box. Users were consistently annoyed when the flow of a purchase was interrupted by the requirement to login or create an account. Give users the option to accomplish these tasks before they begin shopping so they can speed through checkout.
- **Use a Single 'Subscribe' Button with No Email Input**
If a user clicks the 'Subscribe' button without typing his/her email address into the input box, they are directed to an unlabeled 'manage preferences' page with a form. At the top of the form is a jarring error message about the user's failure to include an '@' in the email field they hadn't even noticed in the first place. Avoid errors before they can happen by linking a single 'Subscribe' button to a page with a subscription form, or by coding the clicked button to trigger a pop-up form.
- **Create a Uniform Style for the Utility Navigation Menu**
Users were confused by the fluctuation of colors and styles in the utility menu, slowing their access to information. Display menu items to conform with Gestalt principles of similarity and proximity to help users quickly locate what they need.
 - **Place the 'Search' Input Box and Label at the Top of the Menu**
This position conforms with user expectations.
 - **Place Three Identically-Styled Button Links Below**
Use 'Subscribe', 'Contact Us', and 'Login/Create Account'.
 - **Keep Color Schemes Consistent**
Display text in dark colors on light backgrounds for best readability.

Medium Priority:

- **Move 'Support Us' to the Global Navigation Menu**
'Support Us' is not utilitarian in nature; it is conceptual. To accommodate user expectations, this page should be offered on the global navigation menu, not the utility menu.
- **Generate Accurate Server Message**
After subscribing to the newsletter from the unlabeled 'manage preferences' page, users were presented with an 'Almost Done...' message that led them to anticipate a speedy response. Users perceived the ensuing delay as a failure. When a server process is known to be slow, post a message that anticipates user expectations. An example might be, 'Thank you for your subscription! Look for our email confirmation request in the next 24 hours.'

Low Priority:

- **Distinguish Login from Mailing List**
Users who subscribed to the mailing list assumed they had created an account as well, only to learn otherwise when they attempted to make a purchase. Respond to subscription requests with an invitation for users to create an account to take full advantage of the Ann Arbor Art Center's offerings. This prompt encourages further website interaction while clarifying to the user that they have not yet created a viable account.

Membership

Medium Priority:

- **Create a Landing Page for 'Join'**

Several users struggled to find the 'Membership' page after being pulled equally by the close semantics of 'Support Us' on the utility menu and 'Join' on the global menu. Compounding the problem was the odd relationships between these pages. 'Support Us' has no links, and 'Join' links directly to 'Membership', which in turn links to 'Get Involved'. A single landing page will anchor this small but important section.

 - **Retitle the 'Support Us' Page, 'Join'**

Link this page to the 'Join' item currently on the global navigation menu.
 - **Link 'Get Involved' and 'Membership' off of 'Join'**

With its letter from the president, photos, and carefully-worded pitch, the content of the 'Support Us' page would be a perfect place to branch off to 'Membership' and 'Get Involved'.
 - **Include 'Membership' and 'Get Involved' in a Drop-Down Menu off of 'Join'**

This will provide access to both sub-pages anywhere in the site.
- **Code the Membership Chart**

The chart featuring the various membership packages and their benefits is a jpeg sourced from a print file intended for a vertical format. Properly code a striped, horizontal table in HTML to support users on short screens and visually-impaired users relying on screen readers.

Low Priority:

- **Remove the Second Logo**

Not anticipating the length of the page slowed at least one user's search for the membership link. Remove the second logo at the top of the page to save valuable space 'above the fold' for important content.
- **Shift Photos to the Side**

Place images where they are less likely to interfere with users' searches.

Issues with Artists

High Priority:

- **Create a Page Labeled ‘Our Artists’**
Users expected, but couldn’t find, a page listing all artists with information about what they offer at the Ann Arbor Art Center. A comprehensive representation of artists and their offerings will increase both site usability and artists’ goodwill. Label the page, ‘Our Artists’, and place it in the ‘About’ section where other personnel are listed. Create a database to populate this page.
- **Stack Each Listing in Horizontal Blocks**
Use a consistent layout to include the following information about artists:
 - **Artist’s Name**
 - **One Image**
 - **Brief Bio or Statement**
 - **Primary Media**
 - **Checkbox Indicating if the Artist is Represented in the 117 Gallery Shop**
 - **A Button Labeled, ‘Exhibitions’**
Only display this button if the artist has been in any Ann Arbor Art Center exhibitions. Link this button to the ‘Calendar’ page, pre-filtered to the artists’ name, using the main category, ‘Exhibits and Shows’ and the 2nd-level filter, ‘Artists Exhibiting’.
 - **A Button Labeled, ‘Classes’**
Only display this button if the artist is currently teaching or will be teaching any classes at the Ann Arbor Art Center. Link this button to the ‘Calendar’ page, pre-filtered to the artist’s name, using the main category, ‘Classes’ and the 2nd-level filter, ‘Instructor’.
 - **A Button Labeled, ‘Artist’s Website’**
Only display if the artist has a website. If this button is clicked, code an alert box to appear indicating to the user that they are about to leave the Ann Arbor Art Center website. Provide two buttons in the alert box; one reading, ‘Proceed to Artist’s Website’, and the other reading, ‘Stay at the Ann Arbor Art Center’.
- **Provide Search Filters**
Allow users to search for artists by the following parameters:
 - **First Letter of Last Name**
Use a text input box for users to input letters.
 - **Media**
Use a drop-down menu with primary media groups such as watercolor, glass, etc. Include the option, ‘Other’ at the end of the list.
- **Use Current Shopping Application Instead of Eventbrite**
The Eventbrite application is poorly integrated, both visually and contextually, with the site – setting a time limit for users to purchase their ‘tickets,’ for example. No users realized these ‘tickets’ had anything to do with entering the competition. Use the shopping application for collecting entry fees instead. Also create a single, obvious link from the show’s description page to the corresponding application page.

Medium Priority:

- **Allow Artists to Upload Entries to a Server**
Emailing entries is less secure than uploading them. For artists, high-resolution jpegs of their work are valuable property that should be stored on a secure server.
- **Identify Artists and Artist Sections More Clearly**
Users repeatedly mistook 'For Artists' on the global navigation menu for simply 'Artists'. Often when users were looking *for artists*, they were drawn to the label that echoed that very phrase in their minds. Short-circuit this semantic path by posing the label as a question, such as, 'Are You an Artist?' This technique is used effectively for a cross-link on the 'Home' page.
- **Target Art Consumers and Art Providers Separately**
Cross-linking content between artists and consumers not only increases all users' disorientation, but it can also create negative reactions from artists. Struggling artists, for example, may bristle at being solicited while viewing more successful artists and their exhibitions. Stronger artists, conversely, may find the blurring of audiences presumptuous, or even condescending.
 - **Move the 'Call for Entries' Page Out of 'Exhibitions' and into 'For Artists'**
 - **Remove 'Are You an Artist?' and 'Call for Entries' from the 'Exhibitions' Global Sub-Menu**
 - **Remove the 'Calendar' Component from the 'Exhibit' Page Under 'For Artists'**
- **Ensure All Juried Show Postings Are Accurate and Clear**
One user was confused on the 'Exhibit' page under 'For Artists' which lists two juried shows the Art Center hosts, but not the two listed on the 'Call for Entries' page.
- **Clarify Successful Submission of Teaching Applications**
Users had less than five seconds to read a 'thank you' message confirming their 'Instructor Application' submissions, leaving them to wonder if their forms had actually gone through. Instead of setting a timeout function for response messages, load messages in a dialogue box that a user can click out of at their own leisure. Optionally, direct the user to a new page posting a 'thank you' confirmation message, along with a link back to the main site.

Low Priority:

- **Refine Phrasing and Imagery on the 'Call for Entries' Page**
The 'Call for Entries' text on the marketing image for the 'Never Not Broken' show is far more likely to be clicked than the actual link, 'Learn More and Register', to the right of it. Use industry-standard terminology to prevent confusion.
- **Change the Label 'Sell' in the 'For Artists' section to 'Sell Retail'**
Rarely do artists exhibit their work with no intention of selling it, as one test subject noted.
- **Clearly List and Describe the Three Ways for Artists to Exhibit their Work**
 - **Individual Exhibitions**
 - **Group Exhibitions**
 - **Juried Exhibitions**
This section should provide a link to the 'Call for Entries' page.