

Nielsen Norman Group

Heuristic Evaluation Workbook

Use this workbook to conduct your own heuristic evaluation.

For each of Jakob's 10 Usability Heuristics, look for specific places where the interface fails to adhere to the guideline. Write your recommendations for how to fix those usability issues.

Heuristic Evaluation Workbook

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Date: 1/25/2024

Product: CATA mobile website

Task: Home page accessibility and interactivity

1

Visibility of System Status

The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time.

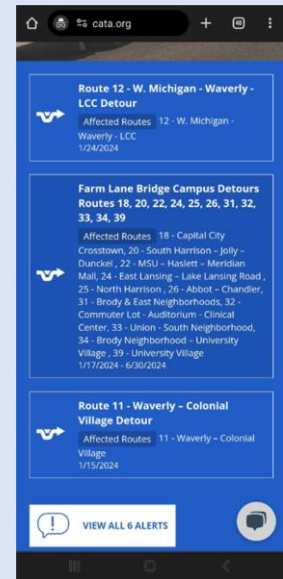
- Does the design clearly communicate its state?
- Is feedback presented quickly after user actions?

Issues

-The webpages loaded quickly and smoothly. There was no lag and the website uses the white loading indicator underneath the website URL (default on Chrome web browser) to showcase the system status when clicking between pages.

-There is no indicator hinting at where you are on the webpage itself and how far you've scrolled.

Evidence



Severity Rating

Cosmetic – need not be fixed

Recommendations

-Have an indicator (ex: progress bar at the top of the page) that can tell users how far they have scrolled.

2

Match Between System and the Real World

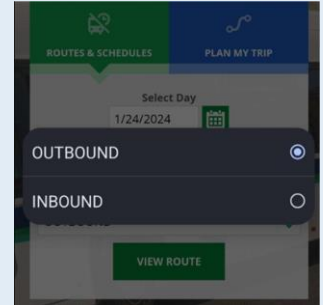
The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.

- Will user be familiar with the terminology used in the design?
- Do the design's controls follow real-world conventions?

Issues

-The terms "OUTBOUND" and "INBOUND" may be unfamiliar to some users. Some users may also have a hard time translating such terms into their native language.

Evidence



Severity Rating

Major – needs fixing and high priority

Recommendations

-Using synonyms and more common words such as "departing" and "arriving" may help.

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3

User Control and Freedom

Users often perform actions by mistake. They need a clearly marked "emergency exit" to leave the unwanted action without having to go through an extended process.

- Does the design allow users to go back a step in the process?
- Are exit links easily discoverable?
- Can users easily cancel an action?
- Is *Undo* and *Redo* supported?

Severity Rating

Minor – needs fixing but low priority

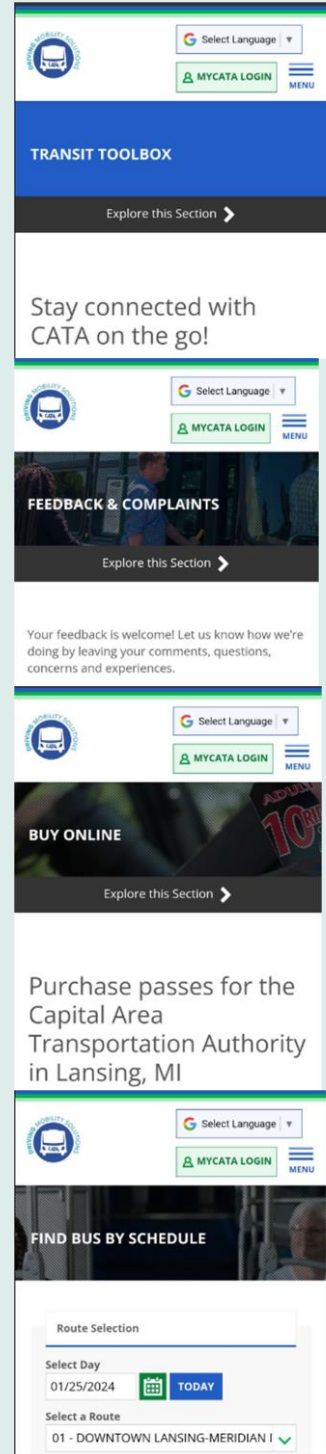
Issues

-Aside from the company logo on the top left-hand side of the page, there is no way for users to go back from other webpages, leading to users going through a maze. This impacts users whose devices may not function properly (ex: a cracked screen leading to input issues) or users who are disabled, the most.

Recommendations

-Have an identifiable "back" button to navigate through the pages so that users won't have to start from step 1.

Evidence



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4

Consistency and Standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions.

- Does the design follow industry conventions?
- Are visual treatments used consistently throughout the design?

Severity Rating

Major – needs fixing and high priority

Issues

-The “view all alerts” button has a default color of white (when no action is taken to click the button), but the “sign up” and “login” buttons under the “get alerts by email” text changes to white when an action is taken to click the button(s).

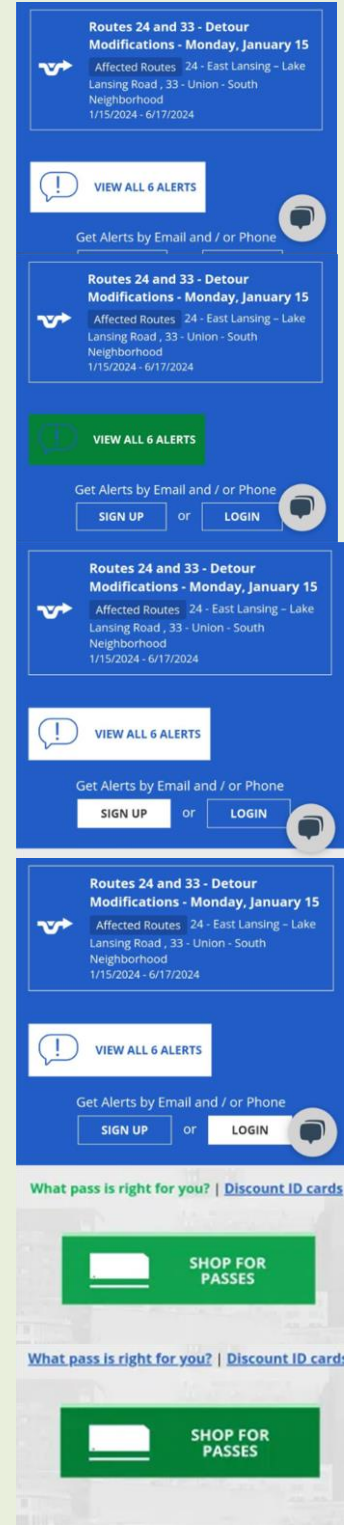
-The "shop for passes" button is green by default and turns a slightly darker shade of green when an action is taken to click the button.

Recommendations

-More consistency with the button colors.

-Maybe have a color for the primary, secondary, and tertiary buttons.

Evidence



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5

Error Prevention

Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.

- Does the design prevent slips by using helpful constraints?
- Does the design warn users before they perform risky actions?

Issues

-When setting up an account, the website doesn't recognize standard email forms (@gmail.com, @yahoo.com, etc.), so users can sign up for an account using @gmail without the ".com". There are no error messages that say that the email provided is not a valid address.

Evidence

Sign-up for a Free MyCATA Account

Fields marked with an asterisk (*) are required.

* First Name
T

* Last Name
L

* Email Address
t@gmail

* Confirm Email Address
t@gmail

* Password

* Confirm Password

Awaiting MyCATA Account Verification

A confirmation email has been sent to t@gmail.

Please follow directions in email to verify account. Thank you for registering with CATA.org!

Severity Rating

Catastrophic – imperative to fix

Recommendations

-Have the system recognize valid and invalid email addresses and give a warning for users to double check their input if an error occurs.

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6

Recognition Rather Than Recall

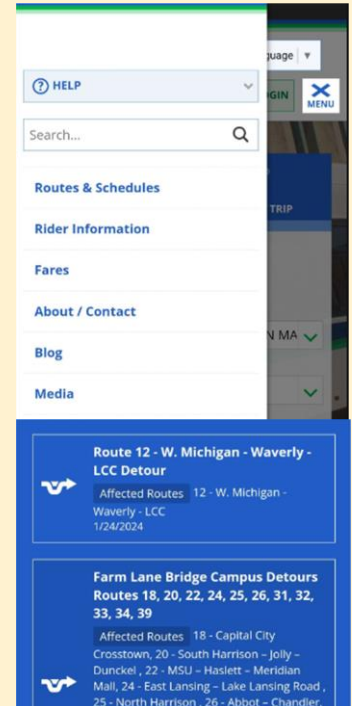
Minimize the user's memory load by making elements, actions, and options visible. The user should not have to remember information from one part of the interface to another. Information required to use the design (e.g. field labels or menu items) should be visible or easily retrievable when needed.

- Does the design keep important information visible, so that users do not have to memorize it?
- Does the design offer help in-context?

Issues

-The menu is only visible from the very top of the page

Evidence



Severity Rating

Major – needs fixing and high priority

Recommendations

-Have the navigation bar set to not move when the user scrolls down the webpage.

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7

Flexibility and Efficiency of Use

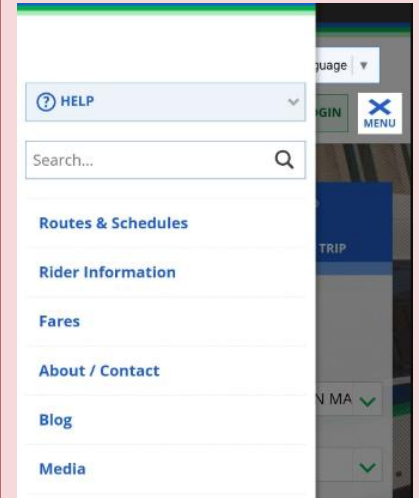
Shortcuts — hidden from novice users — may speed up the interaction for the expert user such that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

- Does the design provide accelerators like keyboard shortcuts and touch gestures?
- Is content and functionality personalized or customized for individual users?

Issues

-There does not seem to be any shortcuts (unless the menu and "explore this section >" is counted as a shortcut).

Evidence



Severity Rating

Cosmetic – need not be fixed

Recommendations

-Have more shortcuts available beyond the menu button.

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8

Aesthetic and Minimalist Design

Interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.

- Is the visual design and content focused on the essentials?
- Have all distracting, unnecessary elements been removed?

Recommendations

Minor – need fixing but low priority

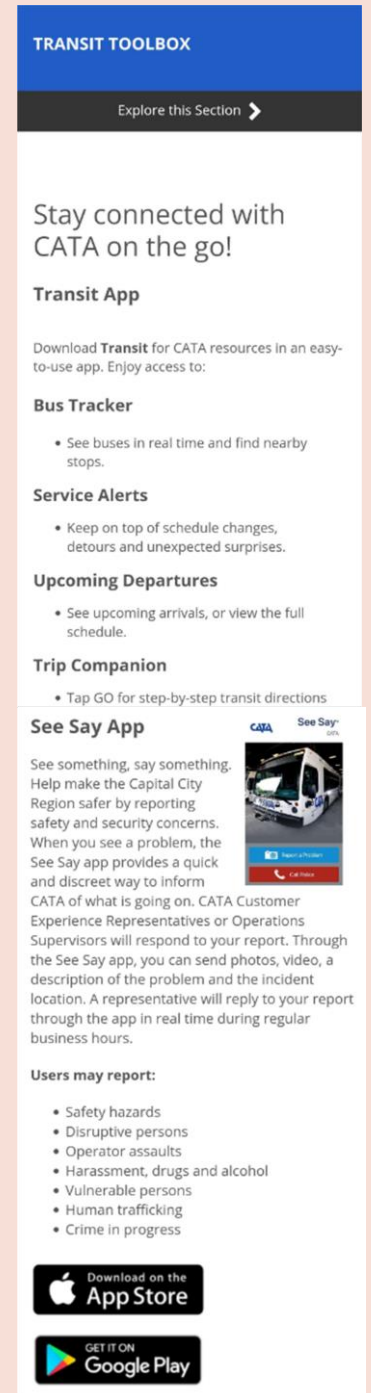
Issues

-Clicking on the "report a problem" button at the bottom of the Home page leads to a page advertising the Transit App with no verbiage about filing a report until after the user scrolls down the page.

Recommendations

-Arrange the layout so that users will know how to file a report *before* advertising the app. Maybe include verbiage like "filing a report can also be conveniently done through the Transit App" after giving details about filing a report in the traditional way.

Evidence



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9

Help Users Recognize, Diagnose, and Recover from Errors

Error messages should be expressed in plain language (no error codes), precisely indicate the problem, and constructively suggest a solution.

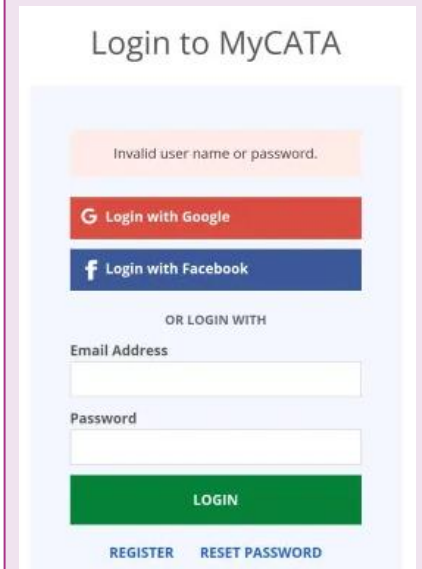
- Does the design use traditional error message visuals, like bold, red text?
- Does the design offer a solution that solves the error immediately?

Issues

-The problem lies in either the username or the password, but there is no indication on which one it is.

-The error message says "invalid *username*" whereas the email address was asked for in order to login-- not the user name.

Evidence



Severity Rating

Major – needs fixing and high priority

Recommendations

-Prompt (or nudge) the user to reset their password after so many invalid login attempts.

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10

Help and Documentation

It's best if the system doesn't need any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.

- Is help documentation easy to search?
- Is help provided in context right at the moment when the user requires it?

Severity Rating

Minor – needs fixing but low priority

Issues

-Although the website has a "help" option if the menu button (top right-hand side) is clicked and there is a "explore this section >" strip on some pages, a user who is not tech-savvy or exploring the website for the first time can easily get lost in the multiple webpages.

Recommendations

-Make a FAQ page that will either answer FAQs and/or direct them to the page where their question can be answered in detail.

Evidence

The screenshot shows a comprehensive navigation menu with the following categories and items:

- Routes & Schedules**
- Trip Planner**
- Live Bus Tracking**
- Find Bus by Schedule**
- Contact - Feedback & Complaints**
- Ride to Hope**
- Stops & Departures**
- Find Bus by Service**
 - Fixed Routes
 - Search Routes by Schedule
 - Special Events
 - MSU Gameday Shuttles
 - East Lansing Art Festival
 - Ingham County Fair Shuttle
 - Limiteds
 - Curb-to-Curb & Paratransit
 - Connector
 - Redi-Ride
 - Spec-Tran
 - CATA Rural Service
 - MSU Lot Link
 - MSU Night Owl
 - Shopping Bus
- Detours & Rider Alerts**
 - Event Detours
 - Snow Detours
 - Football Detours
- Where can I Ride?**
 - MSU Campus
 - East Lansing - Okemos - Haslett
 - LCC Campus
 - Cooley Campus
 - Downtown Lansing Area
- Public Meeting Notice - Proposed Service Changes**
- Rider Information**
- How do I?**
 - Read a Schedule & Service Changes
 - Buy Passes & Pay Your Fare
 - Board & Leave the Bus
 - Make a Transfer
 - Find Lost Items
 - Reserve or Cancel a Curb-to-Curb Trip
 - Use Bike Racks & Lockers
- Transit Toolbox**
- Lansing School District Maps & Information**
- AmBUSSador Program**
- MSU Parent Information**
- MSU Student Information**
- Disability Resources**
- Feedback & Complaints**
- Holidays**
- Safety & Courtesy Tips**
- Customer Experience**
 - Customer Experience
 - Privacy & Security
 - Terms of Use
 - Your Rights and Title VI
- Contact CATA**
- Translated Documents**
 - Explore Ingham County Parks with CATA