

CONTENT ARCHITECTURE

USER RESEARCH & DATA ANALYSIS



Goal

Determine which of four potential navigational structures is the most effective by analyzing user data collected via tree test for ease of use and ability to locate content.



Method

WHAT

██████ utilized a tree test to gain more insight into user behavior. The primary purpose of a tree test is to provide evaluative feedback of an hierarchical category structure as it relates to task completion and user ability to navigate the information as organized. Tree tests help us understand users' mental models and provide recommendations accordingly.

HOW

The tree test was created and administered using Optimal Sort, an online tool that enables the creation of nested information architectures you wish to study and that segments results.

WHO

Participants were recruited through ██████ website, as well as through Optimal Sort's random participant recruitment feature.

Terms

Success Rate

The average score of success across all tasks, as determined by the percentage of users who followed a correct path that led them to the intended destination.

Directness

The score of directness across all tasks, determined by the percentage of users who ended up at an answer without backtracking.



User Findings



Option 1

Random
User Stats

Site User
Stats

60%

Success Rate

87%

Directness

79%

Success Rate

88%

Directness

1m 30s

Time Taken

3m 14s

Time Taken



Option 2

**Random
User Stats**

**Site User
Stats**



57%

80%

70%

78%

Success Rate

Directness

Success Rate

Directness

1m 59s

4m 7s

Time Taken

Time Taken



Option 3

**Random
User Stats**

**Site User
Stats**



50%

85%

71%

86%

Success Rate

Directness

Success Rate

Directness

1m 55s

3m 41s

Time Taken

Time Taken



Option 4

**Random
User Stats**

**Site User
Stats**



79%

85%

79%

85%

Success Rate

Directness

Success Rate

Directness

1m 48s

3m 25s

Time Taken

Time Taken

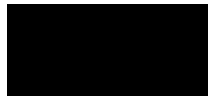


A hand with a black smartwatch is pointing at a map pinned to a wall. The map shows a region with various locations and blue circular markers. Other maps and notes are visible in the background, all pinned to the wall. The entire image has a blue overlay.

Observations

Success Rates

Random Users vs Site Users

Users recruited by Optimal Sort generally had lower rates of success than those recruited through  site. This is likely due to the fact that those recruited through the site are more familiar with the site's content and current organization, and may have a more informed idea of where to locate content in any architecture tested.

Internalized Site User Bias

Interestingly, site user success rates hovered between 70-80%, with the highest success rates at 79% for the current navigation structure or a variant of it (Option 1 and 4). This is likely due to the fact that users who already use the site are accustomed to the current structure.



Directness

High Rates of Directness

Both site users and randomly recruited users had comparable rates of directness. While it was to be expected site users would have high directness rates, one explanation as to why randomly recruited users had such high rates is the fact that, despite lesser rates of success, these users falsely believed the path they were following was correct, or did not feel like backtracking for more information.



Time Taken

Random Users

Random users took the least amount of time to complete the study but had lower rates of success than site users. It is important to account for the fact that randomly recruited participants took the test with differing levels of persistence and seriousness. While their feedback provided valuable insight into the paths a random user might take, they also likely spent less time on each task than the recruited site users and were less invested in the outcome.

Site Users

Alternately, site users took the longest to complete the test but had the highest rate of success. This is likely because they were more invested in the outcome, but likely skewed the data due to their previous exposure with the site and its content.

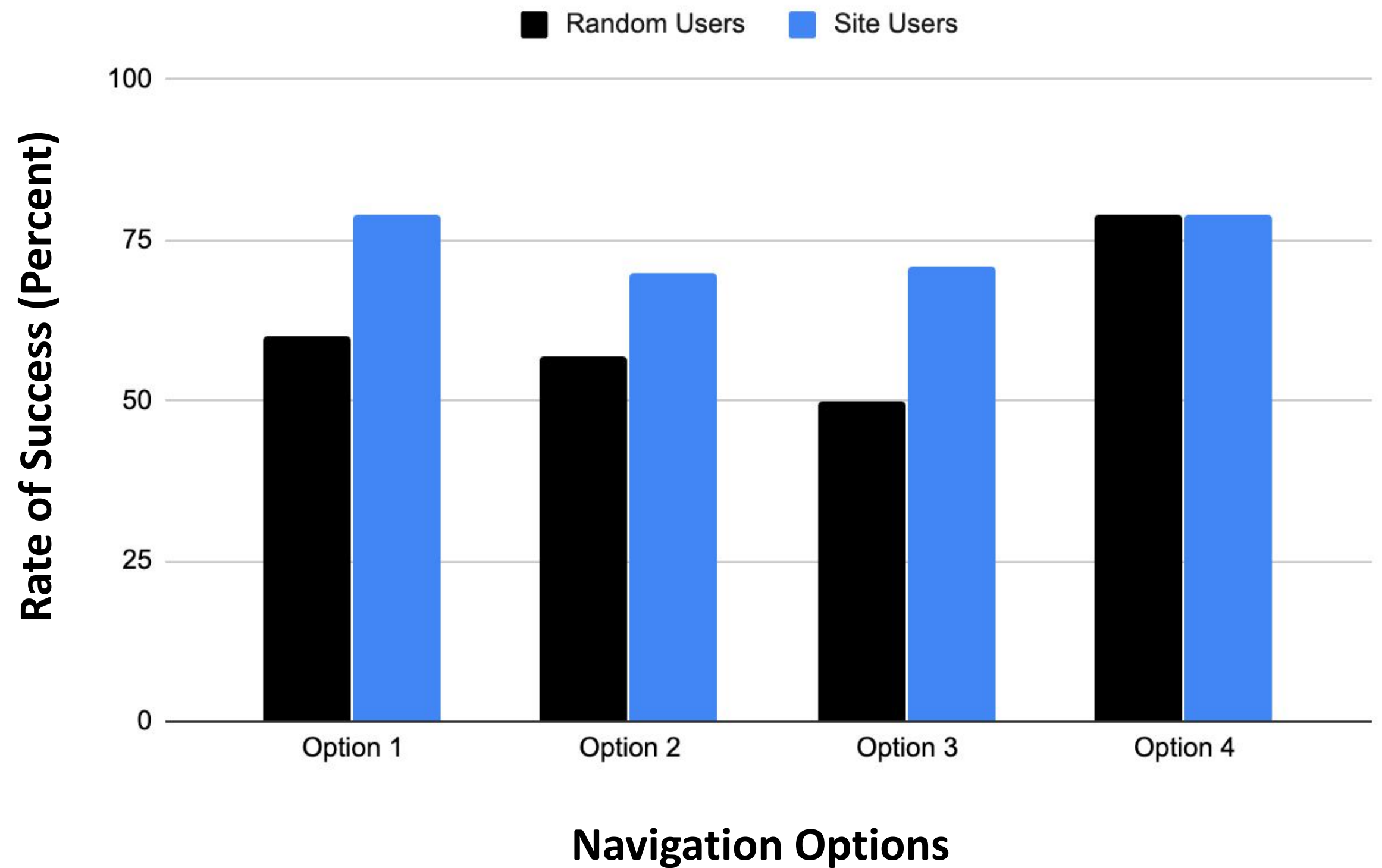


Recommendations





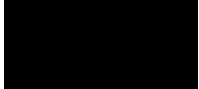
Rates of Success Across All Navigational Structures Tested



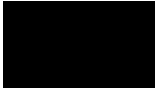
Recommended Navigation:

Current navigation (plus Community)

Why

Between both familiar and unfamiliar users tested,  current navigation proved most successful overall in allowing them to find targeted content. Though the other options tested were simpler in some ways, the trade-off of granularity associated with more main menu items benefits the user's first glance ability to find their intended path.

To alphabetize or not?

Options 1 and 4 produced similar results, with option 4 (alphabetized) reflecting modest improvement for unfamiliar users. Generally we believe there are benefits to alphabetizing your navigation and that this should be used during menu set-up. However we do not intend to automate or force alpha sort on the menu so that  retains the latitude to re-order items as needed.



Option 4

Path Analysis



Method

HOW

Based on the data from the Optimal Sort tree test, [REDACTED] was able to view which paths yielded the highest rates of misdirection amongst participants for **Option 4**, which is the recommended navigation to use.



WHAT

The paths with the highest rates of deviation were recorded. Most valuable is the data regarding incorrect initial category assumptions amongst users, as this allows [REDACTED] to see where their expectations deviate from their users.

Notable Exceptions

Outlier Data

Any deviation that had less than two occurrences were counted as outliers and not included as secondary sources of deviation.

Random Responses

Based on each task, if there were deviations that had zero logical correlation to the assigned task and occurred only once, these deviations were also considered outliers and not taken into consideration.

Varied End Destinations

In some tasks, there was a common thread of initial misdirection with a scattershot of varied end destinations. These were lumped together as their initial deviation was the most prominent, and in most cases deviated from the correct path on the first click rather than as the user progressed through the task.



How To Read Path Analysis

Example 1

Discover Nature > Varied End Results

Bolded category

Wrong category selected before user got to destination

Varied End Results

Users commonly embarked down the same initial wrong path but end destinations varied with no predictable or discernible pattern.

Example 2

Wildlife > **Attracting Wildlife**

Unbolded

Users correctly guessed the initial category but ended up at the wrong destination

Bolded destination

Users may have started down the correct path but commonly ended up at the same wrong end destination.



TASK NO. 1

Learn about archery
seasons for deer.

27%

Success

88%

Directness

Primary Sources of Deviation

- > Hunting and Trapping >
Hunter Education & Training
- > Hunting and Trapping >
Hunter Regulations & Limits

Secondary Sources of Deviation

- > **Discover Nature** >
Varied destinations

TASK NO. 2

Prepare to do a research paper on bullfrogs in .

42%

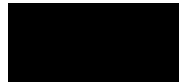
Success

70%

Directness

Primary Sources of Deviation

> Discover Nature >

 Research

> Wildlife > **Attracting Wildlife**

Secondary Sources of Deviation

> **Hunting and Trapping** >

Varied end destinations

> **Your property and community** > Varied end destinations

TASK NO. 3

Find out how to deal
with an invasive shrub
on your farm.

64%

Success

88%

Directness

Primary Source of Deviation

➤ Trees and Plants ➤
Identification Guide

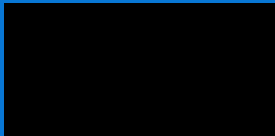
Secondary Sources of Deviation

➤ Your Property and
Community ➤ **Improve my
Property**

➤ **Wildlife** ➤ Varied end results



TASK NO. 4

Order seedlings
from .

58%

Success

91%

Directness

Primary Source of Deviation

> Your property and
Community > **Improve my
Property**

Secondary Sources of Deviation

> Trees and Plants > **Native
Plant Restoration**

> **Discover Nature** > Varied
end results

TASK NO. 5

Identify a small gray bird
you saw while on a trail
ride.

58%

Success

79%

Directness

Primary Source of Deviation

> Wildlife > **Report
Wildlife Sightings**

Secondary Sources of Deviation

> Discover Nature > **Photos
and Live Cameras**

> Wildlife > **Attracting Wildlife**



TASK NO. 6

Obtain a permit for trout fishing.

58%

Success

91%

Directness

Primary Sources of Deviation

> Hunting and Trapping >

Permits

> Your Property and Community > **Special Permits**

Secondary Sources of Deviation

> Fishing > **Get started fishing**

> Fishing > **Where to Fish**

TASK NO. 7

Find a place in 
to go birdwatching.

39%

Success

73%

Directness

Primary Source of Deviation

➤ Wildlife ➤ **Report
Wildlife Sightings**

Secondary Sources of Deviation

➤ Your Property and
Community ➤ **Disease Control**

➤ Discover Nature ➤ **Field Guide
A-Z**



TASK NO. 8

Prepare to teach a lesson on coyotes.

25%

Success

61%

Directness

Primary Source of Deviation

> **Hunting and Trapping** >
Varied end results

Secondary Sources of Deviation

> Wildlife > **Nuisance and Problem Species**

TASK NO. 9

Find a recipe for
venison.

67%

Success

76%

Directness

Primary Source of Deviation

➤ Your property and
Community ➤ Community
Conservation

Secondary Sources of Deviation

➤ Wildlife ➤ Varied end
results



TASK NO. 10

Find when fish gigging season begins in streams.

58%

Success

94%

Directness

Primary Source of Deviation

> Fishing >
Events

Secondary Sources of Deviation

> Fishing >
Permits

TASK NO. 11

Find how your city can
receive a grant to improve
wildlife habitat.

58%

Success

94%

Directness

Primary Source of Deviation

➤ **Discover Nature** ➤ Varied
destinations

Secondary Sources of Deviation

➤ Wildlife ➤ **Special Permits**

➤ Your property and community ➤
Special Permits

Thank you!

