

Card Sorting Report

Shedd Aquarium

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Table of Contents

EXECUTIVE SUMMARY.....	3
DESCRIPTION OF CARD SORT.....	4
FINDINGS AND RECOMMENDATIONS.....	5
ALTERNATE INTERPRETATIONS OF LABELS.....	5
CONTENT DIFFICULT TO CATEGORIZE; POTENTIAL LABELING CONCERNS.....	5
CONTENT EXPANSION.....	6
CROSS-LINKING/ CONTENT INTEGRATION.....	6
GROUPINGS ESTABLISHED FOR CONTENT; POTENTIAL GLOBAL NAVIGATION.....	6
SEPARATE (NON-GROUPED) HIGH-LEVEL PAGES; POTENTIAL GLOBAL NAVIGATION.....	7
CARD SORTING DATA.....	8
CONVENTIONS	8
CARD SORT 1	8
CARD SORT 2	10
CARD SORT 3.....	12
CARD SORT 4.....	14
CARD SORT 5	16
CARD SORT 6	18
LIST OF CARDS.....	20

Executive Summary

An exploratory card sorting exercise was conducted to gain a better understanding of how users grouped the Shedd Aquarium website's content into a hierarchical structure. The insights gained from this exercise will provide important guidance in both our restructuring and re-labeling of content.

The findings of the card sort are organized by:

- *Alternate Interpretations of Labels*
The ambiguous wording of these labels indicates a need for a new label and/or a reorganizing of content.
- *Content Difficult to Categorize; Potential Labeling Concerns*
These items represent either an awkward organization of content, or unrecognizable consistently-unrecognizable terminology.
- *Content Expansion*
Users occasionally searched for content they couldn't find. In some cases, this was a consequence of lack of clarity in the labels; in other cases, the content was simply missing.
- *Cross-Linking/ Content Integration*
Cards that seemed to belong in more than one category strongly indicate a potential for cross-linking their content across multiple pages.
- *Groupings Established for Content; Potential Navigation*
Content repeatedly grouped together is ideal for establishing site architecture;
- *Separate (Non-Grouped) High-Level Pages; Potential Global Navigation*
These pages are not easily grouped but are integral to usability and are most likely to function as a utility.

Description of Card Sort

Card sorting conducted:	10/4/2015 - 10/9/2015
Testing occurred at:	Participants homes, The Morning Owl (Milan, MI), Leo's Coney Island (Saline, MI), Zingerman's Deli (Ann Arbor, MI), Bigby's Coffee (Ann Arbor, MI)
Number of tests:	6
Participants per test:	One user per card sort
Test duration:	Generally between 30 and 45 minutes
Number of cards:	60
Type of card sort:	Exploratory (users grouped grouped cards with no headings to guide them. They then assigned their own labels to their groups.)

Findings and Recommendations

Alternate Interpretations of Labels

- FAQs were grouped together by several users. This suggests the need for one FAQ for general questions about the aquarium, and alternate labels for questions under subtopics – for example, ‘Field Trip Fact Sheet’, as opposed to ‘Field Trip FAQs.’
- ‘Educator Map was grouped under various headings according to who the user believed was the implied audience. For example, one user placed it under a heading called ‘Youth.’ Another put it under a heading called, ‘Educators.’ Revising the label to, ‘Maps for Educators’ would be helpful.
- Travel with Shedd was placed under a heading of “Exhibits,” ‘Research Trips’, and ‘Trips and Events for Kids.’ A term such as ‘vacation’ may help clarify the meaning.
- Beluga was not always understood to be a whale. Simply changing this label to, “Beluga Whales” would address this problem.

Content Difficult to Categorize - Potential Labeling Concerns

- Abbott Oceanarium (in 4 card sorts)
- 4-D Experience (in 6 card sorts)
- Extraordinary Experiences (in 6 card sorts)
- Aquarium Microbiome Project (in 5 card sorts)
- Ten Fun Finds (in 3 card sorts)
- Polar Play Zone (in 3 card sorts)
- Connecting to the Standards (in 4 card sorts)
- Sustainable Gardens Map (in 6 card sorts)
- Caribbean Reef (in 5 card sorts)
- Wild Reef (in 5 card sorts)
- On the Reef (in 6 card sorts)
- On the Great Lakes (4 card sorts)
- On the River (in 6 card sorts)
- Frogs (in 4 card sorts)
- Conservation Videos & Educator Guides (in 1 card sort)
- Fish Migration Mysteries (in 6 card sorts)
- Stingray Touch (in 6 card sorts)

Content Expansion

- After noting the disparity of a large number of unique animals contrasting with two different labels referencing stingrays (Stingrays and Stingray Touch) and seahorses (Seahorses and Saving Seahorses in Southeast Asia), nearly all users expected to see more sub-labels under the various animals.

Cross-Linking / Content Integration

- Provide cross links between research projects, conservation projects, and where applicable, animal pages.
- Provide cross links between animal pages and exhibit pages.

Groupings Established for Content - Potential Global Navigation

- FAQs
- For Teens / Teen Learning Lab
- Youth / Shedd Kids / Kids
- Educational Opportunities / Educators / Education
- Videos / Media Online/Electronic
- Events
- Directory/ Aquarium Info
- Abbott Oceanarium Info / Abbott Oceanarium Directory
- Habitats
- Reefs
- Bahamas
- On the River/Lakes
- Sting Rays
- Fun Facts
- Amphibians
- Animals at Shedd / Other Animals / Species / Identifying Species
- Arctic Species
- Fresh Water
- Warm Water Reefs
- Invasions / Invasive Species
- Saving Species / Endangered Species / Endangered Waters
- Science at Work
- Wetlands
- Tropics
- Fish / Where are the Fish? / Sea Critters
- Mammals
- Salt Water Creatures
- Belugas
- Exhibits / Main Exhibits

- Fun Activities
- Research Trips
- Overnights
- Field Trips / Trips & Events for Kids
- Experiences / Extraordinary Experiences
- Aquarium Microbiome Project
- Connecting to the Standards

Separate (Non-Grouped) High-Level Pages - Potential Global Navigation

- Volunteering
- Matching Gift Directory
- Exhibit Guides

Card Sorting Data

Conventions

Boldface text on the left lists the labels users created for the groups they made. The cards in the groups are then listed in plain text in the column to the right. Text in the middle represent any subgroups users made. Text to the left comprises potential global navigation, and text in the middle indicates possible sub-navigation.

Card Sort 1

<i>Suggested Label</i>	<i>Cards in Group</i>
Reefs	Caribbean Reef Wild Reef On the Reef
Bahamas	Studying Iguanas in the Bahamas Bahamas: Tracking Nassau Groupers Connecting the Conchs in the Bahamas
On the River/Lakes	On the Great Lakes Amazon Rising On the River
Stingrays	Stingrays Stingray Touch
Invasive Species	Surveying Endangered, Invasive Species Invasive Crayfish
Aquarium Info	Matching Gift Directory Exhibit Guides Volunteering FAQs Aquarium Microbiome Project Connecting to the Standards
Abbott Oceanarium Info	Abbott Oceanarium Mudpuppy Research Sea Otters Sea Lions Jellies Sharks Seahorses & Seadragons

<i>Suggested Label</i>	<i>Cards in Group</i>
	<ul style="list-style-type: none"> Penguins Turtles Fish Migration Mysteries Dolphins Octopuses
Amphibians	<ul style="list-style-type: none"> Amphibian Experts Amphibians Defined Amphibian Stories Amphibian Photos Conserve Amphibians Frogs
Species Info	<ul style="list-style-type: none"> Species Fact Sheets Species Highlights
Overnights	<ul style="list-style-type: none"> Spooky Seas Overnight Overnight FAQs
Educators	<ul style="list-style-type: none"> Conservation Videos & Educator Guides Educator Map
Field Trips	<ul style="list-style-type: none"> Field Trip FAQs Field Trip Orientation Video
Saving Species	<ul style="list-style-type: none"> Project Guyana: Saving Arapaimas and Wetlands Saving Seahorses in Southeast Asia
Experiences	<ul style="list-style-type: none"> 4-D Experience Extraordinary Experiences Sustainable Gardens Map Multimedia Downloads
Teen Learning Lab	<ul style="list-style-type: none"> Teen Learning Lab Events Teen Learning Lab Calendar Teen Learning Lab FAQs
Belugas	<ul style="list-style-type: none"> Binational Partnership Protects Belugas Belugas
Shedd Kids	<ul style="list-style-type: none"> Shedd Kids Care in the Classroom Shedd Kids Care at Home Polar Play Zone Ten Fun Finds

User Comments:

- Expressed expectation for further subgroups under individual species, in accordance with Stingrays and Stingray Touch.

Card Sort 2

Suggested Label

Cards in Group

Media Online/Electronic

Multimedia Downloads
Conservation Videos & Educator Guides
Field Trip Orientation Video

Tropics

Studying Iguanas in the Bahamas
Wild Reef
Amazon Rising
Bahamas: Tracking Nassau Groupers
On the Reef
Project Guyana: Saving Arapaimas and Wetlands
Connecting the Conchs in the Bahamas
Caribbean Reef
Saving Seahorses & Seadragons

Fish

Fish Migration Mysteries
Stingrays
Sharks
Stingray Touch

FAQs

Field Trip FAQs
Volunteering FAQs
Overnight FAQs

Other Animals

Surveying Endangered, Invasive Species
Invasive Crayfish
Octopuses
Jellies
Penguins
Turtles

Amphibians

Amphibian Experts
Amphibian Photos
Conserve Amphibians
Amphibian Stories
Frogs
Mudpuppy Research
Amphibians Defined

Youth

Shedd Kids Care at Home
Educator Map
Connecting to the Standards
Teen Learning Lab Events
Teen Learning Lab FAQs
Shedd Kids Care in the Classroom
Spooky Seas Overnight

Suggested Label

Cards in Group

Ten Fun Finds
Teen Learning Lab Calendar

Exhibits

Exhibit Guides
Abbott Oceanarium
Travel with Shedd
Aquarium Microbiome Project
Extraordinary Experiences
Species Highlights
Species Fact Sheets
4-D Experience
Sustainable Gardens Map
Polar Play Zone
On the River
Matching Gift Directory

Mammals

Dolphins
Binational Partnership Protects Belugas
Sea Otters
Sea Lions
Belugas

Card Sort 3

Suggested Label

Cards in Group

Main Exhibits

Ten Fun Finds
 Exhibit Guides
 Fish Migration Mysteries
 Aquarium Microbiome Project
 Abbott Oceanarium
 Amazon Rising
 Wild Reef
 On the Reef
 Caribbean Reef
 On the River
 On the Great Lakes

Fun Activities

Polar Play Zone
 Sustainable Gardens Map

Amphibians

Amphibians Defined
 Conserve Amphibians
 Amphibian Stories
 Amphibian Photos
 Amphibian Experts
 Frogs

Species

Stingrays
 Stingray Touch
 Sea Lions
 Dolphins
 Jellies
 Penguins
 Sharks
 Seahorses & Seadragons
 Octopuses
 Turtles
 Sea Otters
 Species Highlights
 Species Fact Sheets

Aquarium Info

Matching Gift Directory
 Volunteering FAQs
 Connecting to the Standards

Invasive Species

Surveying Endangered, Invasive Species
 Invasive Crayfish
 Belugas

Educational Opportunities

Multimedia Downloads

Suggested Label

Cards in Group

Shedd Kids Care at Home
Conservation Videos & Educator Guides
4-D Experience
Teen Learning Lab FAQs
Teen Learning Lab Events
Teen Learning Lab Calendar
Shedd Kids Care in the Classroom
Educator Map

Research Trips

Overnight FAQs
Field Trip FAQs
Field Trip Orientation Video
Spooky Seas Overnight
Saving Seahorses in Southeast Asia
Mudpuppy Research
Bahamas: Tracking Nassau Groupers
Connecting the Conchs in the Bahamas
Studying Iguanas in the Bahamas
Project Guyana: Saving Arapaimas and Wetlands
Binational Partnership Protects Belugas
Travel with Shedd
Extraordinary Experiences

User Comments:

- User 3 put all media-related labels together. Although atypical, this relationship may warrant some level of integration.

Card Sort 4

Suggested Label

Cards in Group

FAQs

Matching Gift Directory
 Field Trip FAQs
 Volunteering FAQs
 Overnight FAQs

For Teens

Teen Learning Lab Events
 Teen Learning Lab Calendar
 Teen Learning Lab FAQs

Videos

Conservation Videos & Educator Guides
 Multimedia Downloads
 Field Trip Orientation Video

Events

Travel with Shedd
 Extraordinary Experiences
 Spooky Seas Overnight
 Shedd Kids Care at Home
 Shedd Kids Care in the Classroom

Directory

Educator Map
 Sustainable Gardens Map
 Abbott Oceanarium
 4-D Experience
 Stingray Touch
 Polar Play Zone
 Exhibit Guides

Habitats

On the Great Lakes
 On the River
 Amazon Rising
 On the Reef
 Caribbean Reef
 Wild Reef

Fun Facts

Species Highlights
 Ten Fun Finds
 Connecting to the Standards
 Fish Migration Mysteries
 Species Fact Sheets

Amphibians

Amphibian Experts
 Amphibians Defined
 Amphibian Stories
 Amphibian Photos

Suggested Label

Cards in Group

Animals at Shedd

Conserve Amphibians
 Sea Lion
 Penguins
 Jellies
 Stingrays
 Dolphins
 Sea Otters
 Seahorses & Seadragons
 Turtles
 Belugas
 Sharks
 Frogs
 Octopuses

Invasions

Surveying Endangered, Invasive Species
 Invasive Crayfish

Science at Work

Aquarium Microbiome Project
 Saving Seahorses in Southeast Asia
 Binational Partnership Protects Belugas
 Project Guyana: Saving Arapaimas and Wetlands

Wetlands

Mudpuppy Research
 Studying Iguanas in the Bahamas
 Connecting the Conchs in the Bahamas
 Bahamas: Tracking Nassau Groupers

User Comments:

- Wondered if Teen Learning Lab Events were one-time events or ongoing events.
- Debated over whether Conserve Amphibians should be placed with 'Amphibians' or with other 'Conservation Projects.'

Card Sort 5

Suggested Label

Endangered Waters

Cards in Group

Sustainable Gardens Map
Project Guyana: Saving Arapaimas and Wetlands
Saving Seahorses in Southeast Asia
Caribbean Reef
Wild Reef
On the Reef
Amazon Rising
On the Great Lakes

Invasive Species

Surveying Endangered, Invasive Species
Invasive Crayfish

Where are the Fish?

Fish Migration Mysteries
Mudpuppy Research
Aquarium Microbiome Project
On the River
Bahamas: Tracking Nassau Groupers
Connecting the Conchs in the Bahamas
Studying Iguanas in the Bahamas
Binational Partnership Protects Belugas
Abbott Oceanarium

Aquarium Info

Matching Gift Directory
Multimedia Downloads
Educator Map
Volunteering FAQs

Spooky Seas Overnight

Connecting to the Standards

Connecting to the Standards

Kids

Shedd Kids Care at Home
Shedd Kids Care in the Classroom
Field Trip Orientation Video
Conservation Videos & Educator Guides
Exhibit Guides
Extraordinary Experiences
4-D Experience
Ten Fun Finds
Polar Play Zone
Teen Learning Lab FAQs
Teen Learning Lab Events
Teen Learning Lab Calendar

Trips & Events for Kids

Field Trip FAQs

Suggested Label

Cards in Group

Overnight FAQs
Travel with Shedd

Identifying Species

Species Highlights
Species Fact Sheets

Amphibians

Amphibians Photos
Amphibian Stories
Conserve Amphibians
Amphibians Defined
Amphibians Experts
Stingray Touch
Frogs

Sea Critters

Octopuses
Dolphins
Turtles
Penguins
Sharks
Seahorses & Seadragons
Jellies
Sea Otters
Belugas
Sea Lions
Stingrays

User Comments:

- Confused by Shedd Kids Care at Home and Shedd Kids Care in the Classroom.
- Similarly struggled to organize the various project labels by conservation efforts or research.

Card Sort 6

Suggested Label

Cards in Group

Arctic Species

Polar Play Zone
Sea Lions
Penguins

Freshwater

Fish Migration Mysteries
Invasive Crayfish
On the Great Lakes

Amphibians

Amphibians Defined
Amphibians Photos
Amphibians Experts
Amphibians Stories
On the River
Conserve Amphibians
Mudpuppy Research
Frogs
Turtles

Endangered Species

Dolphins
Belugas
Surveying Endangered, Invasive Species
Binational Partnership Protects Belugas

Salt Water Creatures

Sharks
Octopuses
Seahorses & Seadragon
Stingray Touch
Jellies
Sea Otters
Species Highlights
Species Fact Sheets
Stingrays

Volunteering

Connecting to the Standards
Volunteering FAQs

Warm Water Reefs

Connecting the Conchs in the Bahamas
Wild Reef
On the Reef
Caribbean Reef
Bahamas: Tracking Nassau Groupers
Studying Iguanas in the Bahamas

Suggested Label

Cards in Group

Exhibit Guides

Exhibit Guides

Matching Gift Directory

Matching Gift Directory

Aquarium Microbiome Project

Overnight FAQs
Aquarium Microbiome Project
Ten Fun Finds
Spooky Seas Overnight
Multimedia Downloads

Education

Travel with Shedd
Shedd Kids Care at Home
Shedd Kids Care in the Classroom
Educator Map
Conservation Videos & Educator Guides
Sustainable Gardens map
Teen Learning Lab Events
Teen Learning Lab FAQs
Teen Learning Lab Calendar

Extraordinary Experiences

Extraordinary Experiences
Amazon Rising
Saving Seahorses in Southeast Asia
Project Guyana: Saving Arapaimas and Wetlands

Abbott Oceanarium

Abbott Oceanarium
Field Trip Orientation Video
Field Trip FAQs
4-D Experience

User Comments:

- Noted that “Surveying Endangered, Invasive Species” sounded like a header.

List of Cards

1. Matching Gift Directory
2. Shedd Kids Care at Home
3. Shedd Kids Care in the Classroom
4. Amazon Rising
5. Caribbean Reef
6. Abbott Oceanarium
7. Polar Play Zone
8. Wild Reef
9. Amphibians Defined
10. Conserve Amphibians
11. Amphibian Stories
12. Amphibian Photos
13. 4-D Experience
14. Stingray Touch
15. Extraordinary Experiences
16. Travel with Shedd
17. Stingrays
18. Dolphins
19. Belugas
20. Frogs
21. Penguins
22. On the River
23. Jellies
24. On the Great Lakes
25. Sea Lions
26. Sea Otters
27. Sharks
28. Octopuses
29. On the Reef
30. Seahorses & Seadragons
31. Turtles
32. Aquarium Microbiome Project
33. Surveying Endangered, Invasive Species
34. Invasive Crayfish
35. Fish Migration Mysteries
36. Mudpuppy Research
37. Binational Partnership Protects Belugas
38. Saving Seahorses in Southeast Asia
39. Project Guyana: Saving Arapaimas and Wetlands
40. Studying Iguanas in the Bahamas
41. Bahamas: Tracking Nassau Groupers
42. Connecting the Conchs in the Bahamas
43. Field Trip Orientation Video

44. Field Trip FAQs
45. Educator map
46. Ten Fun Finds
47. Connecting to the Standards
48. Exhibit Guides
49. Conservation Videos & Educator Guides
50. Spooky Seas Overnight
51. Overnight FAQs
52. Teen Learning Lab Calendar
53. Teen Learning Lab Events
54. Teen Learning Lab FAQs
55. Sustainable Gardens Map
56. Species Highlights
57. Species Fact Sheets
58. Multimedia Downloads
59. Amphibians Experts
60. Volunteering FAQs