USER-CENTERED DESIGN BOOK

U.S. National Park Service Website Redesign

March 26, 2014 Version 2.1



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There is nothing so American as our national parks.... The fundamental idea behind the parks...is that the country belongs to the people, that it is in process of making for the enrichment of the lives of all of us.

- President Franklin D. Roosevelt



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PERSONA

Kenneth Gonzales • Avid National Park Visitor and Family Man Seeking Information About Activities for Kids at National Parks



Age: 34 Career: Associate College Professor Institution: University of Colorado at Denver Annual Income: \$55,000 Marital Status: Married (12 years) Family Status: 2 children (10 (boy) and 8 (girl) years old) Location: Lakewood, Colorado

Behaviors

One Brand	\bigcirc		\bigcirc	Many Brands								
				DIF	FER	RENT	PAR	RKS				
One Channel	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Many Channels
NATIONAL PARKS VS. OTHERS												
Low	0	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	High
VISITS TO PARKS PER YEAR												
One User	0	\bigcirc		\bigcirc	\bigcirc	Many Users						
INFLUENCE												

Scenarios

Ken has been visiting National Parks since his childhood. He and his wife met at a group hike at Rocky Mountain National Park, and have been frequenting parks as a couple for several years. Ken is now a father of two and has started taking his kids to the parks, as well. The kids are now old enough that he thinks that they can start getting involved in Junior Ranger programs, and other activities for young nature lovers. Ken wants to visit parks in the adjoining states to Colorado first, according to the type of activities available for his children. James—his 10 year old son—is very interested in Dinosaurs, and Angelita—his 8 year old daughter—loves seeing wildlife. He would prefer to find things that will cater to both their interests.

U.S. National Park Service Website Redesign

"My best childhood memories are from trips to National Parks with my family. I really enjoyed experiencing new places and things with other kids my age. The Park Rangers always shared their knowledge, and told great stories. I've been a nature lover ever since!"

Objectives

- I want to find Junior Ranger (and/or other kid-related) activities that will be fun for my kids.
- I am not sure which park we will visit first, but I want to narrow my search to only activities at the parks in adjoining states to Colorado.
- Information about the programs and events, including location, dates, times and fees, will assist me in making my final travel plans.

Process, Frustrations and Pain Points

- Starting with the Home page for the U.S. National Parks Service (http://www.nps.gov/), I was not sure if I should go directly to the Kids menu along the top, or to the Find a Park menu.
- When I went to the **Kids** link, it led to a page that is only for a program called WebRangers. There was no information about actual park activities, nor were there any links to that topic.
- From the Home page, I went to the Find a Park menu. This process took several clicks/links before I was able to find the specific parks and their individual kid-related activity information.
- The intermediate pages I found during my search were inconsistent in style and functionality, which added to the confusion.





DESIGN BRIEF: The Overview

U.S. National Park Service Website Redesign URL: http://www.nps.gov/

Vision

The U.S. National Park Service has a deservedly proud heritage of providing the unparalleled service of maintaining and sharing our nations' most beautiful natural treasures. Nothing less than a stellar website should be used to illustrate these services. We will take the best aspects of the current site and combine them with greater accessibility and modern technology to create a user-centered experience.

People like Ken—who are looking for information to plan their family vacations at the parks—will find what they need quickly and easily, and in a stimulating and useful manner. No compass required! Everyone who visits the website should enjoy it almost as much as they enjoy going to the parks themselves. *Our redesign will ensure that happens!*



Design Problem

Users are facing challenges when they are seeking information about programs/ activities available at national parks; both nationally and at individual parks. Particularly in regard to activities for kids, which are not easy to find.



The navigation is inconsistent and does not always lead to the proper information. Some of the menu and link choices are not intuitively placed or grouped. Not all of the individual pages employ the same style or navigation.

Project Summary

We are planning to redesign the current website to improve the navigation, look and feel, consistency, organization of information, and search capability.

Key features:

- Improving the ease of data retrieval for family visits.
- All the current pages will be modified, depending upon the need for updates and consistency adjustments.
- Information will be organized in intuitive categories.
- Most of the current content, design and images will be retained. We will only make changes that are necessary.





DESIGN BRIEF: The Challenge

U.S. National Park Service Website Redesign

Expected Result

The proposed changes will result in an easily navigable site. The user who is looking for information about familyrelated activities will quickly find the information they are looking for, via intuitive menus and links. The navigation options will lead to sensible



collections of data. The level of user frustration will be reduced significantly. The best of the current site will remain intact, and the character and culture of the site will continue to reflect the tremendous value of the U.S. National Park Service.

Business Objectives

The business objective for this redesign is to increase the number of family visits—related to park activities—by 20% by the end of the year 2015. This result is to be measured by surveys conducted at individual park locations, as well as online surveys available on the website. A calculation of park fees incurred during these visits will also be assessed.

Research

Primary and secondary research was collected to determine the demographics and psychographics of the **target market**:

- Gender: Male and Female
- Adult Age Range: 30-50
- Child Age Range: 6-14
- Household income: \$25,000-\$150,000
- Location: U.S. cities with population over 500,000
- Lifestyle: Enjoy outdoor activities, care about environment and animals, politically moderate, technically savvy

A **Persona** was created based on a user looking for family activities at National Parks. This archetype is based on user surveys and live observation of users seeking similar information on the website. See the *Persona* document for details.







DESIGN BRIEF: The Plan

U.S. National Park Service Website Redesign

Site Map

A site map diagram—showing the site topics and relationships—will be provided for review within the first *two weeks* of the commencement of the project.

Wireframes

Wireframe diagrams—showing a high-level view of each web page—will be provided for review within the first *four weeks* of the commencement of the project.

Draft Reviews

A first draft of the **HOME** page—showing the primary features of the new site—will be provided for review within the first *five weeks* of the commencement of the project. Subsequent pages created and provided for review as a group, following the sign-off of the HOME page.

Usability Testing

During the process of page creation, and after the site is complete, usability tests will be conducted. Any necessary changes are made after testing proves need.

Addressing Design Themes

Although some of the work for each of the three main design themes will overlap, the majority of the tasks will take place in the following order:

- Navigation
- Organization
- Consistency

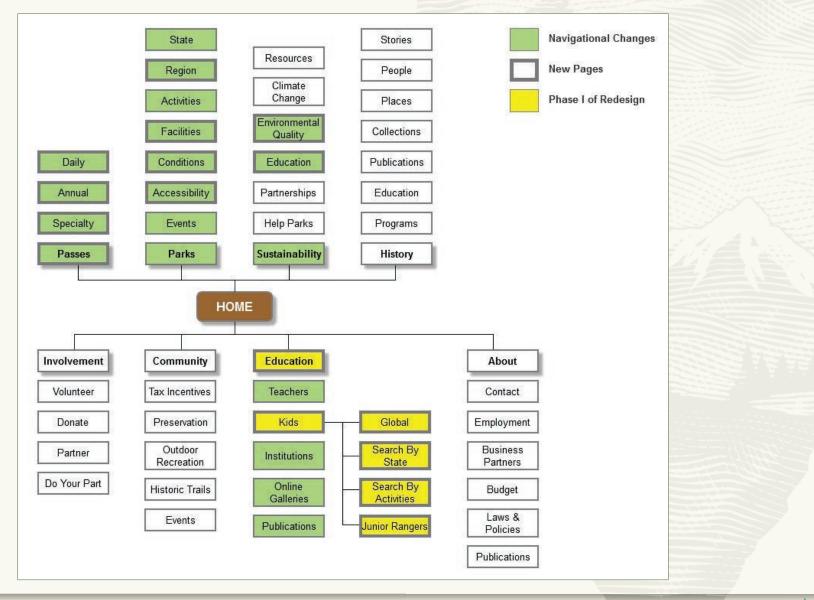
See the individual Design Theme sections for details.





SITE MAP

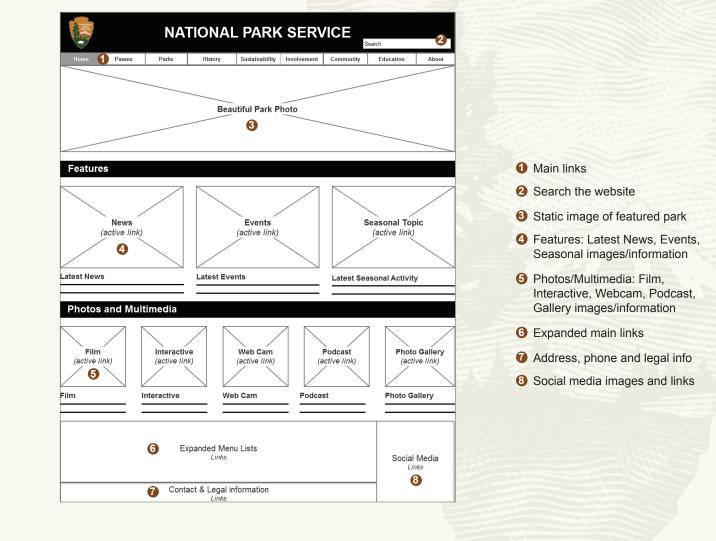
U.S. National Park Service Website Redesign





WIREFRAME: HOME/Landing Page

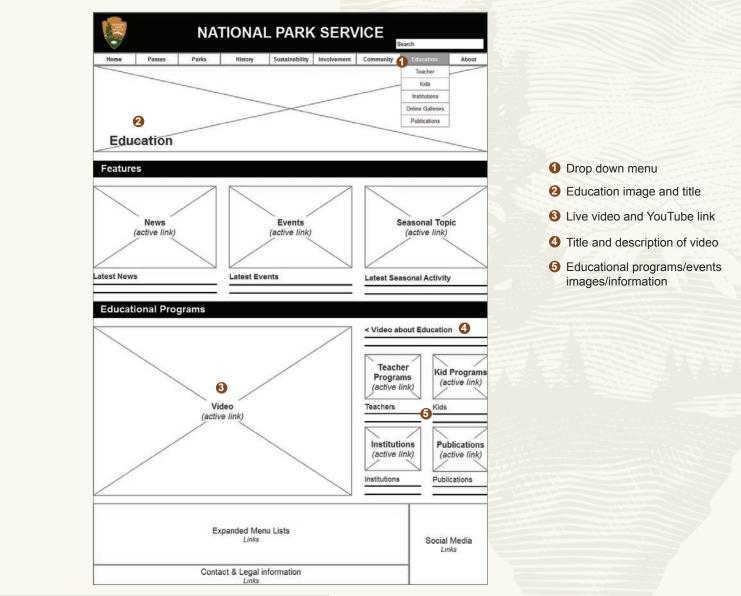
U.S. National Park Service Website Redesign



Home Page Layout

WIREFRAME: EDUCATION/Landing Page

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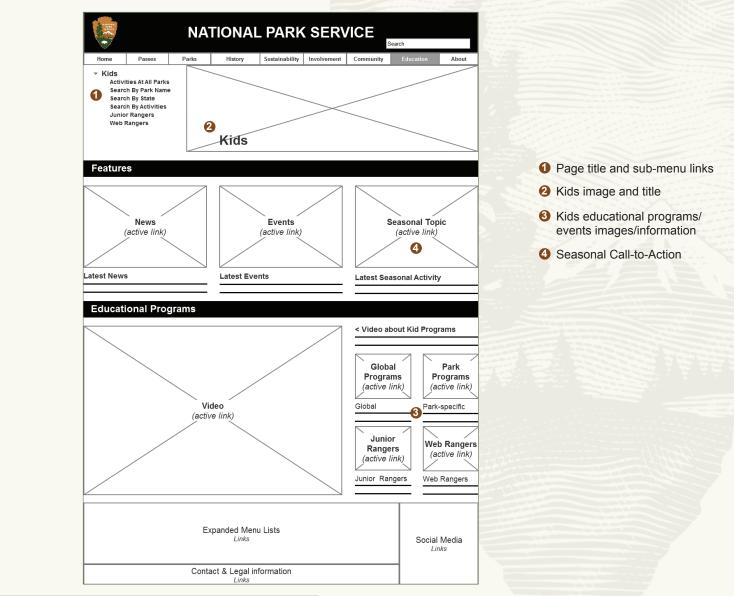
Menu Page Layout





WIREFRAMES: EDUCATIONS > KIDS

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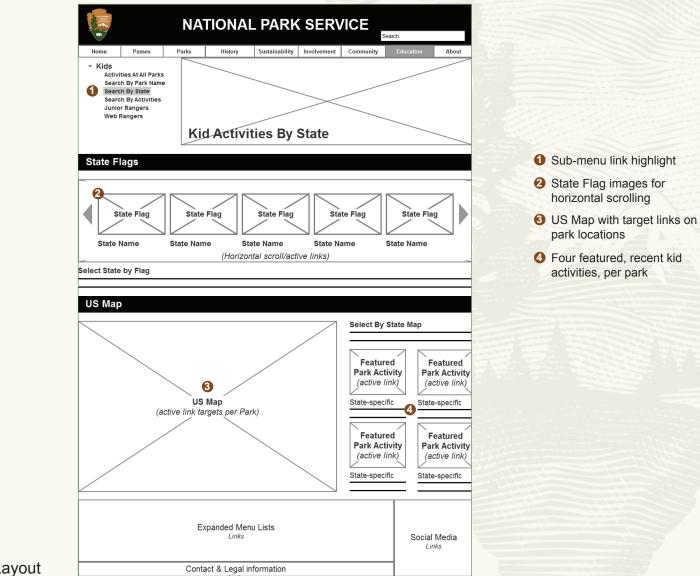


Sub-Menu Page Layout



WIREFRAMES: KIDS > SEARCH BY STATE

U.S. National Park Service Website Redesign



Second Sub-Menu Page Layout





DESIGN BRIEF: The Challenge

U.S. National Park Service Website Redesign

Constraints

- Schedule: The website must be completed by May 18, 2014. High-level schedule*:
 - Week 1: Meet with client for preliminary presentation and delivery of initial documents.
 - Week 2: Develop design principles, Site Map
 - Week 3-4: Wire frames
 - Week 5: HOME page draft
 - Week 6+: Other web page drafts
 - * See the *Requirements* section for a detailed schedule.
- **Resources**: Photos are being provided by third-party and are dependent on weather conditions and season. Final photos will not all be available early design cycle. Content for information pages about kid activities are being provided by NPS staff in multiple departments and locations. Updates for date-dependent activities will change during design cycle.
- **Communication**: Design process requires timely communication between the design staff, NPS staff and third party individuals. Design reviews are required.
- Measurement: Results will not be available for several months after the completion of the project.
- **Reuse:** Schedule is effected by the amount of existing content and code that can be reused.

Design Themes

- Navigation: Menus/links must make sense and lead to desired data. Primary navigation menu tabs change (on all pages) to reorganize information, a Search field added to all pages.
- Organization: Information must be intuitively grouped. • Information/link groupings made intuitive, pages added where necessary (estimating 2 new pages).
- **Consistency**: Style and navigation must be the same across the site. Header, Footer, background, fonts and menu tabs made the same, contact and social links placed in the same location.

See the individual Design Theme sections for details.

Client Interaction

Prior to commencement of the project, the client is to sign-off on the initial Design Brief, Persona, budget and proposed schedule. The client provides any new content required, such as written copy, articles, images and videos. The client is expected to provide timely feedback to deliverables, as to maintain progress toward the design goals. If changes are requested after a deliverable has been reviewed and approved, the client must complete a Change Order request form. The schedule and budget is subject to change.







DESIGN BRIEF: The Plan

U.S. National Park Service Website Redesign



Budget

For services rendered, as described in this design brief and the legal contract—including a warranty for all work the agreed upon compensation of **\$20,000** is due upon completion.





DESIGN BRIEF: Design Theme - Navigation

U.S. National Park Service Website Redesign

Primary Principles

- Modify link tabs to other primary pages, using single-word topics: Home, Parks, Passes, Exploration, Involvement, Community, Education, History and About.
- Add a **Search** field to all pages (Fig.1).

Secondary Principles

- Move Find a Park section on main body to bottom of page.
- Modify Find a Park page to move Search by State map locator to the top (Fig.2) and Advanced Search to the bottom.
- Combine park list and map on the same page.
- Add a direct link to kids activity programs across all parks under the **Education** tab (Fig.1).

Design Tasks

- Design new/different primary menu tabs (at top of page) using the current style, with different file destinations.
- Make layout design changes to facilitate ease of navigation. Change code links to reflect organizational changes.
- Create site map to demonstrate full site navigation.
- Create new global *Kid* activities page, to be under the Education menu tab.



Fig. 1. Example of good menu/tab navigation, organization and search field.

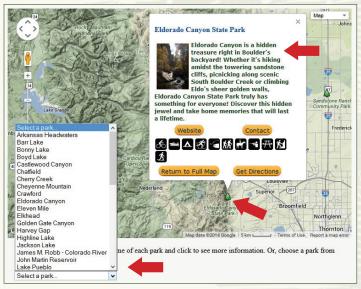


Fig. 2. Example of good park map locator and park list navigation.





DESIGN BRIEF: Design Theme - Organization

U.S. National Park Service Website Redesign

Primary Principles

- Reorganize information: place current **Kids** and **Teachers** content under the new **Education** tab (Fig.1).
- Add a link and separate page for kids programs that are the same across all parks (Fig.3).
- Add a Call to Action to allow sign-up for activities.

Secondary Principles

• Add a link and separate page for information about park passes. After parents have searched for kid activities, they may need information about park passes.

Design Tasks

- List out reorganization of data under new primary menu tabs. For example, current *Teachers* and *Kids* menu tabs will be sub-menu items under the new *Education* tab.
- Use site map to demonstrate full site topic organization.
- Create new *Kids* page with information about global park programs for kids, and links to park-specific kid activities.
- Add a call-to-action to sign-up for upcoming events.
- Add a primary menu tab for information and purchase of park passes.

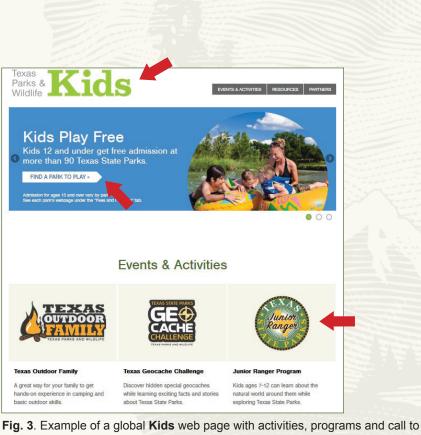


Fig. 3. Example of a global Kids web page with activities, programs and ca action.





DESIGN BRIEF: Design Theme - Consistency

U.S. National Park Service Website Redesign

Primary Principles

- Use the exact same primary (top of page) menu tabs for all pages, with same sub-menus.
- Use the same Header and Footer for all pages (Fig. 4).
- Place contact and social links in the same location for all pages.

Secondary Principles

- Use the exact same background image, texture and/or color for all pages. (See the background of this document as an example of a background for the NPS website.)
- Use the exact same fonts/styles for all pages.

Design Tasks

- Make color, font, background, image and style choices.
- Create wireframes for all landing pages, with consistent layout and grid usage.
- Make sure that all primary, secondary and tertiary links lead to pages that employ the same style and layout format as the HOME page, including the primary menu tabs and sub-menus.
- Add same Header and Footer for all pages in website, including the placement of social network icon links.



Fig. 4. Example of a consistence footer, contact info and social networking links.







U.S. National Park Service Website Redesign



- Determine how competitors solved similar problems
- Evaluate current plan for features compared to competitors

CRITERIA

- 1. Analyze competitor websites and view their solutions
 - How is an initial search for Kid activity information from the Home page accomplished?
 - What is the location and categorization of Kid activity information?
 - Can Kid activities be found for all parks (global park system), as well as individual parks?
- 2. Analyze competitor usage of proposed features
 - How do they keep website navigation consistent across all pages?
 - How do they organize their overall information, and specifically their Kid activities?
 - How do they keep the style consistent across the entire website?
 - Do they have pages dedicated to global and parkspecific Kid activities?

See the *CRITERIA REVIEW* section for answers to the above questions.

COMPETITOR PROFILES

Texas Parks & Wildlife (TPW): http://www.tpwd.state.tx.us

- Official website for all Texas State Parks
- Well-organized, consistent and user-friendly
- Contains Kid-specific activity information
- Extensive landing page menu

Colorado Parks & Wildlife (CPW): http://cpw.state.co.us

- Official website for all Colorado State Parks
- Well-organized, consistent and user-friendly
- Contains Kid-specific activity information
- Simple and Intuitive landing page menu

National Parks Foundation (NPF): http://www.nationalparks.org

- Official Charity of America's National F
- Official Charity of America's National Parks website
- Well-organized, consistent and user-friendly
- Contains Kid activity information for all National Parks
- Simple and Intuitive landing page menu

USER COMPARISON

These competitors were chosen for review because they have a very similar user-base as the US National Park Service. They each address the issue of providing park information about family and kid activities. Per the *Persona* study, many young families are seeking information for park visits.





U.S. National Park Service Website Redesign

DESIGN BRIEF REVIEW

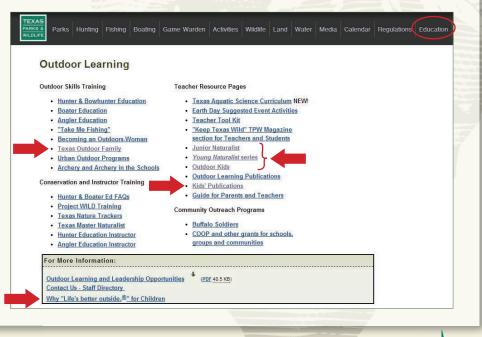
As indicated in the *Design Brief*, the primary problem being addressed with this redesign is the issue of efficiency in locating family/kid-related activity information. In the process of researching this issue, some other indirectly-related problems were found. Not only is there a problem with finding Kid information, but the overall style and navigation is inconsistent. The information categorization needs updating, as well in order to provide an all-encompassing, enjoyable experience for users. This report will show how competitors have resolved these same issues.

In the *Design Brief*, we determined to address the following topics:

- Navigation: Menus/links must make sense and lead to desired data. Primary navigation menu tabs change (on all pages) to reorganize information, a *Search* field added to all pages.
- **Organization**: Information must be intuitively grouped. Information/link groupings made intuitive, pages added where necessary (estimating 2 new pages).
- **Consistency**: Style and navigation must be the same across the site. Header, Footer, background, fonts and menu tabs made the same, contact and social links placed in the same location.

CRITERIA REVIEW

- 1. How is an initial search for Kid activity information from the Home page accomplished?
- 2. What is the location and categorization of Kid activity information?
- 3. How can global park kid activity be found?
- **TPW** On *Education* page (access via menu tab on landing page top) there are several links to Family/Kid information.



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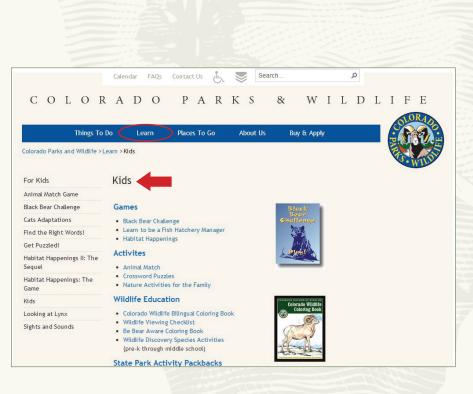


U.S. National Park Service Website Redesign

CRITERIA REVIEW continued

• **CPW** - Under *Things to Do* menu tab their is a link called *Family and Kids* that goes to a *Family Activities* page. And under the *Learn* menu their is a link to a global *Kids* page.









U.S. National Park Service Website Redesign

CRITERIA REVIEW continued

 NPF - Under the CONNECT menu tab their is a link called NPF Kids that goes to a global parks Kids page with links to kid-specific activities.









U.S. National Park Service Website Redesign

COMPETITOR COMPARISON

This chart gives a high-level indicator for each competitor for 6 issues related to this study. **Ratings:** 1 star (*) = very *low* user efficiency, 5 stars (*) = very *high* user efficiency.

	National Parks Foundation	Texas Parks & Wildlife	Colorado Parks & Wildlife	US National Parks Service	
	NATIONAL PARK FOUNDATION	TEXAS PARKS & WILDLIFE		NATIONAL	
Navigation to Family/Kid activities	****	***	***	**	
Overall navigation	$\star \star \star \star$	* * * *	****	***	
Organization of Family/Kid activities	***	* * *	***		
Overall organization	\star \star \star	* * * *	****	***	
Consistency of style throughout website	****	***	****	**	
Finding information about a specific park	* * * *	* * * *	***	****	





U.S. National Park Service Website Redesign

CONCLUSION

Although there is no other U.S. National Park Service to use as a comparison, the three websites that were chosen for this review are close enough in nature and target market for a useful study. They address many of the same needs as the USNPS, and their websites have the same overall goals. Therefore, the results of the comparisons yielded viable redesign recommendations.

Lessons Learned:

- 1. Analysis of competitor website solutions
- The NPF site does an excellent job of directing users to Family/Kid information quickly and easily. The TPW and CPW sites are close behind with very intuitive navigation.
- The USNPS site compares poorly to the competitor sites, primarily because the navigation choices are not intuitive and spread across multiple pages.
 - Redesign recommendation: A combination of the navigation of the NPF site, and the thoroughness of the TPW and CPW sites.
- 2. Analysis of competitor usage of proposed features (style consistency and organization)
- The CPW site has the most user-friendly landing page menu, with information organized into only five categories. When you click on these menu tabs a detailed list of the

sub-topics and links appears, which is easy to navigate.

- The NPF site uses only six menu tabs with a similar ease as the CPW site, but a slightly more user-intensive experience.
- The TPW sites offers a very thorough organization of information (and massive amounts of data).
- All of the above do an superb job with consistency of style and navigation across their sites.
- Finding individual parks is easy for all the sites, but the USNPS site requires extra steps to get to these pages.
- The USNPS site has mismatched page styles and underdeveloped organization of data. The content is excellent, it is just not intuitively accessible.
 - Redesign recommendation: A combination of the organization of the NPF and CPW sites, and the style consistency of these and the TPW site.





USABILITY PLANS

U.S. National Park Service Website Redesign

OBJECTIVES

- Validate that the Navigation menus/links make sense and lead users easily to:
 - Primary landing page navigation menu tabs
 - Family/Kid information
 - Individual park information
- Validate that the Organization of data is intuitively grouped.
 - Kid information for global/all parks
 - Kid information for individual parks
 - Landing page menu topics
 - Park passes
 - Find a park
- Validate that the style and navigation are Consistent and working across the site.
 - Header, Footer, background
 - Fonts
 - Menu tabs made the same
 - Contact and social links placed in the same location
 - Search field on all pages

INCENTIVES

For testers: Free Annual Pass (\$80 value) per family

METHODOLOGY AND LOGISTICS

Method for testing: Live observation of users

Logistics/Timeline:

- First February 28, 2014 10am AiC Testing Center
 - Second March 15, 2014 10am AiC Testing Center
 - 1200 Lincoln St., Denver CO 80203-2172
 - 1.303.837.0825 1.800.275.2420

Recruiting:

- Live, personal contact and asking to participate
- 25 target market users in the following categories:
 - Father of family of 4; wife, 2 pre-teen kids
 - Mother of family of 3; husband, 2 pre-teen kids
 - Single mother of 1(or more) young teenager
 - Single father of 1(or more) young teenager
 - 14 year-old Boy Scout
 - Teenage (13-19) girl and/or boy









USABILITY PLANS

U.S. National Park Service Website Redesign

SCENARIOS

- Scenario 1: Look for Kid activities that are global across all parks
 - Father with two kids does not know which park to go to, but wants to find parks that meet his kids specific interests: archery and wildlife.
- Scenario 2: Look for Kid activities for a specific park, according to location
 - Single mother wants to take her son to the closest park to their home, and wants to see if and when there are any kid activities at that park.
- Scenario 3: Testing the intuitiveness, accessibility and functionality of the primary menu tabs (general navigation)
 - Any user to look to search all menu tabs and see if general "surfing" yields interesting and sensible results.
- Scenario 4: Testing the consistency across all pages
 - Any user to navigate throughout the site and report any inconsistencies in style or navigation options.

"The new navigation and style makes it much more intuitive than it was before. I found it to be a much more pleasurable experience. I can feel confident in finding the info I need now."

- Ken Gonzales (34, 2 kids, Lakewood, Colorado)

POST-TESTING QUESTIONS PER SCENARIO

- 1. How long did it take to accomplish objective?
- 2. Was it easy?
- 3. Did it make sense?
- 4. What would you change?

CONCLUSION

Upon conclusion of the testing, the results will be used to generate a report of lessons learned per scenario and overall.

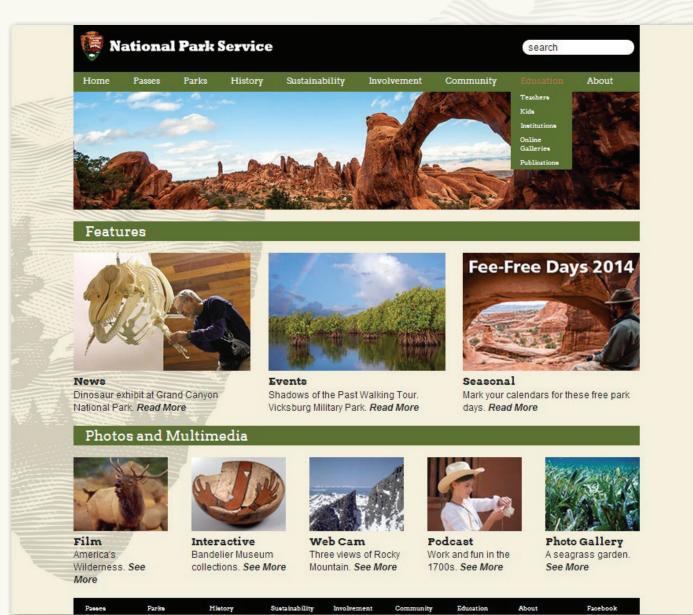


Prototype of **Kids** page





PROTOTYPE: HOME Page





PROTOTYPE: HOME Page



Features



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Educational Programs



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< Get Active! Learn about educational programs.



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