

Robert C. Petersen. Understanding an Organization and Developing the Web Site. A Master's paper for the M.S. of I.S. degree. April, 2004. 35 pages. Advisor: Paul Solomon

Web site developers frequently become captivated with technology and ignore the needs of the users while developing web sites. This can result in confusing user interfaces, unstructured information, and improper content. Once a web site is in place it can be very costly to redesign and time consuming to redesign it. This paper analyzes the principles of web site design and the design of public sector web sites. Research shows that as citizens use the web with increasing frequency, redesigning a web site can make it more accessible, usable, and engaging. Other studies on web site design demonstrate that the proper use of navigational tools can also improve the user experience. To show the practical application of the principles discussed the information needs of the Orange County Recreation and Parks Department are studied. The study consists of a stakeholder analysis, user analysis, information analysis, prototype design, and prototype redesign.

Headings:

User Interface Design

Reference Interview

Government Information/Internet Resources

Use Studies/Internet

UNDERSTANDING AN ORGANIZATION AND DEVELOPING THE WEB SITE

by
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A Master's Paper submitted to the faculty
of the School of Information and Library Science
of the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements
for the degree of Master of Science in
Information Science.

Chapel Hill, North Carolina

April 2004

Approved by

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Introduction

It is often the case that web site developers become enamored with the technology in front of them and do not pay enough attention to the needs of the user when developing a web site. This can lead to significant interface, structural, and content related problems. Once a web site has been designed and is in place it may not be feasible take the time or pay for a redesign. Proper time needs to be taken planning the structure of the web site.

Before a web site can be developed information must be broken down into its smallest parts. From here the information can be analyzed. It is essential to understand what information is needed and the relationships among all the information. To gather the information members of the organization need to be interviewed and members of the user groups should also be interviewed.

Currently the IT department of Orange County is working on redesigning their web site. The current web site has many significant problems. To address the problem Orange County decided to work with students from the Information Science program and the University of North Carolina Chapel Hill. The initial focus of the project is to understand the information requirements for the web site. In February and March 2004 departments were be interviewed to determine the type of information that Orange County's citizens, businesses and visitors are requesting and the methods that are used to address their requests.

Another important consideration of the Orange County web site redesign project is to make sure that the web site is user focused and not organizationally focused. It is extremely important to understand the information needs of the various user groups. It is not likely that in the final web site that the structure of the web site will be the same as the structure of Orange County. Users probably do not care what the specific responsibilities for each department are; they are most likely only interested in obtaining the information appropriate to their particular needs.

Most departments had their own web site; however some did not. Each separate department is responsible for creating and updating its own content. As a result the information is not organized in a consistent manner and each site has its own look and feel. This creates a usability nightmare for the citizens of Orange County. For the purpose of this project the focus will be on the Parks and Recreation Department. This department does not currently have a web site. While a prototype of a web site for the Recreation and Parks will be designed, the prototype is only one of the first steps in the redesign project. First information on the kinds of information that people are looking for from the Recreation and Parks Department must be gathered and analyzed to understand the needs of both the organization and the citizens. From there information maps can be drawn. The most important factors in the design decisions are that the proper information be displayed in the easiest and most efficient way for the user to be able to access the information. Colors and other aesthetic features are the last things to be considered and are of very little relative importance at the prototype stage.

Literature Review

Designing public sector web sites

When Orange County initially wanted to establish a web presence the staff did not take into account many important factors. Orange County began developing the actual web pages before understanding the information needs of the citizens. Each department was also left to do its own thing; so there is no continuity among the pages for each department. The basic structure of the web site should be basic, simple and logical. The user needs to be understood before the site can be designed.

Several studies have been done on public sector web site redesigns. These studies show the importance of this process and the benefits gained from the redesign. The study *Using Converging Methods Across Disciplines to Guide the Redesign of a Large, Information Rich Web Site* discusses the different research methodologies used in the redesign of The Center for Disease Controls (CDC) web site. The methods used in the study include stakeholder analysis, user analysis, and content/information assets analysis. The stakeholder analysis involved many levels of CDC employees. From upper level managers to web masters, people at all levels of the organization were used to gather information. The goal was to break the intended audience or customers into user groups. For the groups identified the stakeholders ranked which information resources they perceived through their interaction with users, internal and external, as being the most and least important to that user group (Robinson et al., 2003). By identifying user groups and what information is perceived to be the most and least important, a knowledge base for deciding how to most efficiently organize the information on the web site was developed.

The next step in the CDC redesign process was the user analysis. Through content analysis of public inquiry emails, results of an online survey, and user interviews further insight into the users information needs were gained. The content analysis of the emails revealed more information seeking tasks that were not identified in the stakeholder analysis. The interviews revealed different patterns of information seeking (Robinson et al., 2003).

The final step in gathering information for the redesign was the content/information asset analysis. The goal here was to gain a basic knowledge of the sites structure and to explore how users interacted with this structure. Four experts reviewed the site and found that it was not user friendly (Robinson et al., 2003). After all the information was gathered, it seems clear that a redesign of the CDC web site was needed. The methods used in this study along with other usability studies will likely provide an efficient web site for CDC customers to use.

Government organizations are increasingly realizing the importance of a web presence. It is no longer enough just to have a web presence because citizens are now attempting to use the sites on a more frequent basis to gain information and accomplish tasks. More citizens understand the power of the internet and are demanding web sites that meet their needs. Government web sites need to be accessible, usable and engaging to a wide variety of users. The article *Community Portals through Communization* discusses how to enable an interface that suits the wants and needs of the community. In the paper the concept of "Communization" is introduced. "Communization" is the idea that a solution is designed to allow customization by one or more individuals or groups to meet the wants and needs of the community (Donnelly, Merrick, 2003). Having a

consistent look and feel throughout a government web site will allow users to be comfortable with the web site and encourage them to use it. "Communization" is meant to focus the attention on the user and the services being offered. "This approach fundamentally switches the emphasis away from government to make everything usable and accessible for everyone, to one where community groups, charitable organizations or business could share the responsibility, thereby increasing likely uptake and improving the user experience for their own communities" (Donnelly, Merrick, 2003).

"Communization" cannot guarantee usable or accessible web sites but it can help governments reach a wider audience and potentially generate more participation and interest in government activities.

Navigational tools

Users do not like to feel lost on web sites and may leave if they feel this way. To prevent users from feeling frustrated some web sites contain navigational tools. These tools are typically located at the top, bottom, left, or right of the screen. Other than the navigational tools provided by each specific web site the user also has the use of the forward and back buttons provided by the web browser. Navigating with just the forward and back buttons can be inefficient. The study *Web Navigation and the Behavioral Effects of Constantly Visible Site Maps* by David R. Danielson examines user movement through hierarchically structured web sites and the behavioral effects of a constantly visible textual contents list for relatively small sites. The study discusses the importance of being able to confidently navigate through a web site. "With respect to Web navigation there are few subjective experiences as satisfying as developing a thorough command and understanding of a space and moving freely and quickly through it with

ease, while there are few subjective experiences as humbling as utterly intimidated, disoriented, and simply lost" (Danielson, 2002). Danielson also points out that contextual navigational aids attack the problem of feeling lost in hyperspace. In the study five different web sites were used. Each site contained between 28 and 57 nodes and had two or three hierarchical levels. The results of the study showed that users on web sites with constant site maps abandoned fewer information seeking tasks, reported information seeking confidence, dug deeper into the site hierarchy, and spent more time at the lower levels (Danielson, 2002). The results of this study indicate that the Orange County Recreation and Parks department web site should include a navigational tool somewhere on the web page.

There are other studies that support the need for a navigational aid on web sites. The study *Usability Studies and Designing Navigational Aids for the World Wide Web* discusses the need for navigational aids and says that these aids should be located beneath the browser buttons. Navigational aids at the top of the web page provide functionality without interfering with the website's graphics. Having them at the top also prevents the user from having to scroll. As part of this study a group of users was asked to navigate a web site with just the browsers navigational tools and a link the home page at the bottom of each page of the web site. Another group of users was provided with text navigational aids at the top of each page. The results of the study showed that good structure aids were invaluable to navigation. Performance improved with the use of navigational buttons, particularly for novice users (Bachiochi et al, 1997). The results of this study are important because many potential users of the Recreation and Parks web site could be novices.

Other than studies done to test the value of navigational aids on web sites there is also literature that supports the idea of navigational aids. Most literature supports the idea that navigation should be clear and consistent throughout the web site. In the book Web Style Guide: Basic Design Principles for Creating Web Sites, Lynch and Horton (2001) discuss how repetition is not boring and that it adds a sense of "place" to the web site that make it more memorable. Lynch and Horton also point out that consistent navigation allows users to adapt to the design of the web site so that they can predict where information is located. (Lynch & Horton, 2001, Ch 4, Page Design Consistency). Nielson (1989) also agrees that a consistent navigation tool improves performance. He says that consistency leads to ease of learning and ease of use. Consistency can improve the user's productivity by leading to higher throughput and fewer errors because the user can predict what the system is going to do (Nielson, 1989). While most of the research seems to agree that there should be some type of consistent navigation, there is some debate as to where the navigational aid should be placed on the web page.

The primary options to locate a navigational aid on a web page are at the top or on the left side. As discussed earlier Bachiochi et al (1997) believe that the navigational aid should be at the top of the web page underneath the browser buttons. The Website Navigation Tips page on www.smartwebby.com says to try and design your navigation on the top of the left side of the screen because this is where the users' eyes go first. The navigational aid for the Recreation and Parks site is located at the top of the web page beneath the browser buttons in accordance with the Bachiochi research. On the left side is the navigation bar that will be consistent for the entire Orange County web site.

The literature on the consistency of navigational menus of web sites all suggest that providing consistent navigation tools is effective and important. Lynch and Horton (2001) discuss how repetition is not boring and how it adds a sense of "place" to the web site that makes it memorable. "Repetition is not boring; it gives your site a consistent graphic identity that creates and then reinforces a distinct sense of "place" and makes your site memorable. A consistent approach to layout and navigation allows readers to adapt quickly to your design and to confidently predict the location of information and navigation controls across the pages of your site" (Lynch & Horton, 2001, Ch 4, Page Design, Consistency). Lynch and Horton also say that consistent navigation allows users to adapt to the design so they can predict where the information they need is located. Nielson further reinforces the point that consistency leads to ease of learning and ease of use. "Consistency leads to ease of learning and ease of use. Consistency improves the user's productivity by leading to higher throughput and fewer errors because the user can predict what the system will do in any given situation and because the user can rely on a few rules to govern use of the system. The smaller number of errors and the shorter the learning time again lead to improved user satisfaction with the system and fewer frustrations with systems which the user cannot use." (Nielson, 1989). Consistency allows the user to predict what the system will do in a given situation. The web site www.smartwebby.com agrees that navigation should be consistent. The web site also notes that the important links of your website should be on every page, in the same location and in the same order. "Navigation should be clear and consistent. The important links of your website should be on every page, in the same location, and in the

same sequence. Don't confuse your visitors by putting your navigation links in different places in different pages." (www.smartwebby.com, Website Navigation Tips).

Methodology

The methodology for this project consisted of five major parts. They are the stakeholder analysis, user analysis, information analysis, prototype design, and prototype redesign.

Stakeholder Analysis

The stakeholder analysis focused on the internal members of the Orange County Government. To begin work on the project I first needed to understand the problems of the current Orange County web site. Todd Jones, Chief Information Officer, and Martha Holyman, Business Analyst, presented the major problems and goals of the project. The major problem with the current web site is that there is no overall coordination of the citizen web experience. Currently the citizens of Orange County experience limited search capabilities, out of date information, no unified look and feel, and limited e-government capabilities. Local businesses, visitors and newcomers to the county are also affected by the web site. The negative impacts of the current web site include decreased interactions between the citizens and local government, a lack of understanding of government services, and a general dissatisfaction with county government. Once I had an understanding of the problem and negative impacts I was able to move on to the next aspect of the project.

User Analysis

In the process of doing the stakeholder analysis the users groups that would be affected by the Orange County web site redesign process were identified. The user groups are the citizens, visitors, local businesses, and Orange County employees. In this part of the process the goal was to identify the scope of the user groups, their psychological characteristics, their knowledge and experience and their physical characteristics. To identify the users and their information needs all the departments of Orange County were interviewed. Each member of the class was responsible for doing several interviews. I choose to interview the Recreation & Parks Department. During my interview with them I became aware of the fact that this particular department had yet to establish a web presence. I decided that I would design a web site for them. The goal of designing the web site is two fold. The department offers many services to the public and it would be a great service to the citizens to have this information available online. Designing the web site would also allow me the opportunity to develop a prototype for the Orange County redesign project.

To conduct the interview with the Recreation and Parks department I went to their office in Hillsborough North Carolina. I interviewed the director of the Recreation and Parks, Lori Taft, and several other members of the department. The interview focused on the interactions between the customer and the Recreation and Parks Department. Information such as how the department communicates with citizens and what information is requested was collected. Background information concerning the department's hours, organization, services provided and communication with other

agencies was also collected. A copy of the interview questions and answer may be found in (Appendix A).

Information Analysis

The information analysis was the most important work of the project. The purpose of this stage was to take the information gathered in the previous two steps and begin to model it. To analyze information that was collected information maps were developed to help highlight what information is most important and see the relationships among the different pieces of information. Two information maps are included in Appendix B. The first is after the initial interview and the second map is based on feedback from the follow up interview.

Going into this stage of the product I knew an information map needed to be developed however, there was no set format. I developed the first information map based on my knowledge and experience from other classes. Recreation and Parks offers many services to the citizens of the county so the map was drawn from a service perspective. Squares represent entities, triangles represent relationships between entities and circles are attributes of the entity. The arrows show the direction of the relationship. This information map was presented Todd Jones, Martha Holyman and the Recreation and Parks Department. Todd and Martha understood the map but user feedback was also needed. In the follow up meeting Lori Taft was presented with several different maps to get user feedback from someone with a non technical background. Lori felt most comfortable with the format shown in Appendix B, but made some changes to what information was represented. The rationale for these changes is discussed in the prototype redesign section.

Prototype Design

The idea is that the web site will be used by the Recreation and Parks Department and serve as a prototype for the Orange County web site redesign project. The design of the prototype is based on the information maps. Screenshots of the web site have been provided Appendix C. While not all pages for the site are displayed, the examples demonstrate the functionality and information layout. The following URL is a temporary link to the prototype. <http://www.unc.edu/~rpeterse/oc/index.htm>

Prototype Redesign

On Tuesday April 6, 2004 I met again with Lori Taft the director of the Recreation and Parks Department. The goal of the meeting was to verify that the information maps were easy to understand by non technical people, change incorrect or ambiguous information, and present the prototype web site for feedback. Lori seemed very excited about seeing the web site. We decided to make several changes to the top navigation menu. The changes were based on the information she thought was necessary and would be of most use to the citizens. We decided to add links to pages for youths, teens, adults and special populations to the top navigation menu. These links will provide some overlapping information with other links in the navigation bar such as classes, sports, trips and camps. Duplicate information will be useful because citizens often inquire as to what is available for certain age groups. Instead of going through the classes, sports, trips and camps links separately they will find the necessary information in the age group they are searching for. Another addition to the navigation bar was Parks. This will contain basic information about all of the parks in Orange County. Equipment Rental and After School Program were taken out of the top navigation bar. Equipment

Rental is not used enough to be in the main navigation menu. A link to sporting goods available for rental will be added to the sports page. The After School link was moved under the Youth link and all after school programs will appear under programs. This was done because that is the age group it is for and there are a limited number of spots available. They already get more requests to enroll than they can accommodate so they do not want to advertise this program to the public in the main navigation bar. I thought this was an excellent meeting. I received valuable feedback and information that did not come out in the initial interview. As a result the web site will have a better information flow and be more useful to the citizens. Screenshots of the web site are in Appendix C.

Rational for Design

The design decisions for the web site are based on the information that was gathered and relevant literature. A minimal amount of color and pictures were added because the focus of the project is to model the information. After the appropriate information is obtained and modeled, the visual aspects of the web site can be added. The Orange County IT department wanted to maintain a consistent look and feel so the same navigation menu is on the top of each page. The top navigation menu is organized based on what the Recreation and Parks Department determined to be the most important. On the left of the screen there will always be a search box for the user to enter search terms. The left hand side will also always include a link back the Orange County home page. The top row is mainly services offered and the bottom row is mainly user groups. Contact Us is the first link in the navigation bar because citizens frequently contact the department with questions regarding the Recreation and Parks services. Hopefully once the citizens get used to the web site Recreation and Parks will not receive as many

requests. After the user groups are several other services offered by Recreation and Parks. Recreation and Parks is always looking for volunteers and often has part time summer positions. These opportunities are listed under Job Postings. Recreation and Parks plans to create an extensive monthly calendar. The calendar can be reached by following the Calendar link. The FAQ contains questions citizens ask and provides them links to the appropriate pages. The home link in the navigation bar returns the user the Recreation and Parks home page in case they get lost searching the web site.

Maintenance

The maintenance of the Recreation and Parks web site is fairly simple. As indicated in the interview of the Recreation and Parks Department the information is only updated three times a year. There is some risk if the information is not updated on time. All services listed on the web site are dated; however, the web site will lose its functionality and will be of little use to the department or citizens if the information is not updated on time. In the prototype I set the layout of the web site and how the user will be able to navigate around the web site. Once the web site is posted by the Orange County IT Department an employee from the Recreation and Parks Department will be trained in how to use Dreamweaver MX to maintain the site. Without the web site Recreation and Parks is limited in the amount of information they can provide citizens through local publications. The initial web site does not contain much information beyond what was published and sent to the citizens however, the web site allows the Recreation and Parks Department to add as much additional detail to their programs as they would like.

Possible Future Developments

In the future the Recreation and Parks department would like to add more functionality to the web site. As of now, citizens need to stop by the office or mail in a form to register for any services that are offered. Recreation and Parks has two future developments to make it easier for citizens to register. The first upgrade is allowing citizens to submit registration online. Allowing them to print the form out offers some benefit to the citizen but they still must mail it in or bring it into the office. The second upgrade is accepting payments online. This enhancement would save the department and citizen's time if the registration and payment process could be done online.

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Appendix A**Information Architecture Interview Form**

Department: Recreation & Parks
Individuals Interviewed: Lori Taft, Libby Davis, Ardra Webster, Kathy Craven, James Hester
Interview Date: February 10, 2004
Interviewer: Rob Petersen
<p>Review the organization chart for the department that you are working with to understand the roles of the personnel in the department. If possible, get a copy of the chart for our records.</p> <p>Lori Taft - director Libby Davis - admin asst Ardra Webster - athletic prog and facilities mgr Kathy Craven - front desk James Hester - recreation services director</p>
<p>What different types of clients does your department serve? (include citizen groups, businesses, visitors, etc. We want to identify as many groups and subgroups as possible.)</p> <p>Athletics - mostly youth</p> <p>Tots through senior citizens</p> <p>Disabled - special populations</p>
<p>What services does your department provide for the different client groups? (Enumerate each. Be as specific as possible. You may be given a brochure or document outlining the services)</p> <p>Athletic programs, arts and crafts, trips, exercise</p> <p>Facilities - gyms, meeting rooms</p> <p>Youth - teams, coaches, uniforms, schedule</p>

<p>Trips - put together trip logistics</p> <p>Free after school program, Sports equipment for reservation, summer camps</p>
<p>What service expectations do your client have (e.g., response time, office hours, quick service, availability in the field)?</p> <p>Sometimes expectations are higher than can be met but the goal is to exceed expectations</p>
<p>Do you provide information to other organizations? (Examples might be state and federal governments, local governments, citizen groups, etc.). Be sure to include names of the organizations and any references to guidelines followed.</p> <p>Chapel Hill and Carrboro Parks and Rec depts., Sportsplex, Hillsborough youth Athletic Assoc., Efland United voices, community school programs</p> <p>Co-sponsorships with other depts</p> <p>Health dept - recreation is a healthy pursuit</p> <p>Dept of Aging - overlapping</p> <p>ERCD - Dave Stancil, responsible for park planning</p> <p>Personnel - employee training courses</p> <p>Park Development - big initiative, want more publicity for park Development activities</p> <p>Commissioners and managers - park development focus</p>
<p>What are the most frequently asked questions your department fields? (collect any colloquial verbiage variations and sample responses)</p> <p>Cost, When, Where, Do you have a website, How to register, Hours, Can I observe a class</p>
<p>What services do citizens approach you looking for?</p> <p>Use of facilities</p> <p>Meeting rooms</p> <p>Citizens want dog park, more fields and outdoor swimming</p>
<p>What services do businesses approach you in search of?</p> <p>Rare to get requests</p> <p>Trail development, volunteers</p>

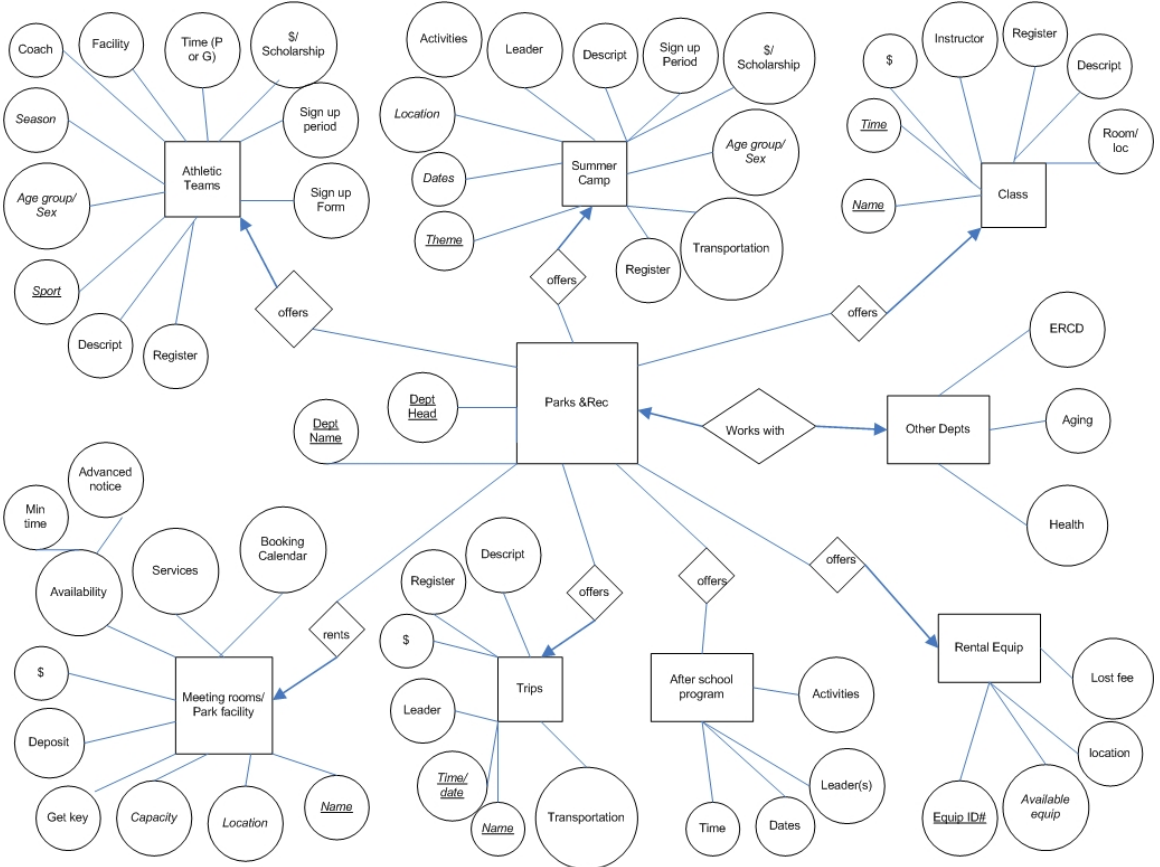
What services do other governments approach you in search of?
What types of services does your department get asked about, but you do not provide? Do other county departments provide these services? Swimming, dog park
Do you collect payment for any services offered by your department? What methods of payment do you accept? Payments are received as cash, check, money order Would be interested in accepting online credit card payments
Do you issue permits for any services rendered? What information do you collect from your clients to render those services? (Collect any forms; do screen captures for on-line entry) Facility reservation - wording varies depending on the client and the facility
What types of information do you provide the public? Flyers, brochures - distributed to Orange County Schools, mailing lists and Available in office Public service announcements to newspaper and radio stations Rarely speak to group
How do you typically communicate that information today? How frequently? Seasonal for sports Program guide and Fun Finder is distributed in newspaper 3 times a year

<p>How often does the information change?</p> <p>3 times a year</p>
<p>What drives the changes?</p>
<p>Is there a penalty for having out of date information accessible to the public? What is it?</p> <p>It would be a problem if cost and registration dates were not updated</p>
<p>How often do the services you provide the public change?</p>
<p>Is there information that you cannot provide the public? Why? (e.g., statutory limitations, lack of availability, difficult to obtain, etc.)</p> <p>no</p>
<p>What types of information does the media ask for?</p> <p>New park development information, trip info,</p>
<p>What links provide additional information for your clients? (get the actual URL if possible, otherwise get enough information that you can find the URL later)</p>
<p>What are your clients' most common frustrations in seeking information and services from your department?</p> <p>They feel like they don't have access, information is obtained by calling or stopping by</p>
<p>In what ways do you rely on other Orange County departments?</p>

<p>Rely on every other department to deliver services</p>
<p>What events does your agency sponsor?</p> <p>Athletics for all ages, most youth, trips, exercise programs, senior programs</p>
<p>What agencies and resources do you send clients to for additional information?</p> <p>Chapel Hill and Carrboro parks & rec Hillsborough youth athletic association (baseball)</p>
<p>Do you have any other information that you would like to share with us?</p> <p>Parks & rec is really excited about getting a website No one on dept has any web experience but they are willing to learn</p> <p>Like the Raleigh website www.raleigh-nc.org/parks&rec/</p> <p>Website would be useful for Applications - programs, facility rental</p> <p>Looking at facility and meeting room schedules</p> <p>Facility map - Maria Hitt (Health dept)</p> <p>Sports year at a glance</p> <p>Summer camps - should be emphasized separately</p> <p>Summer employment opportunities</p>

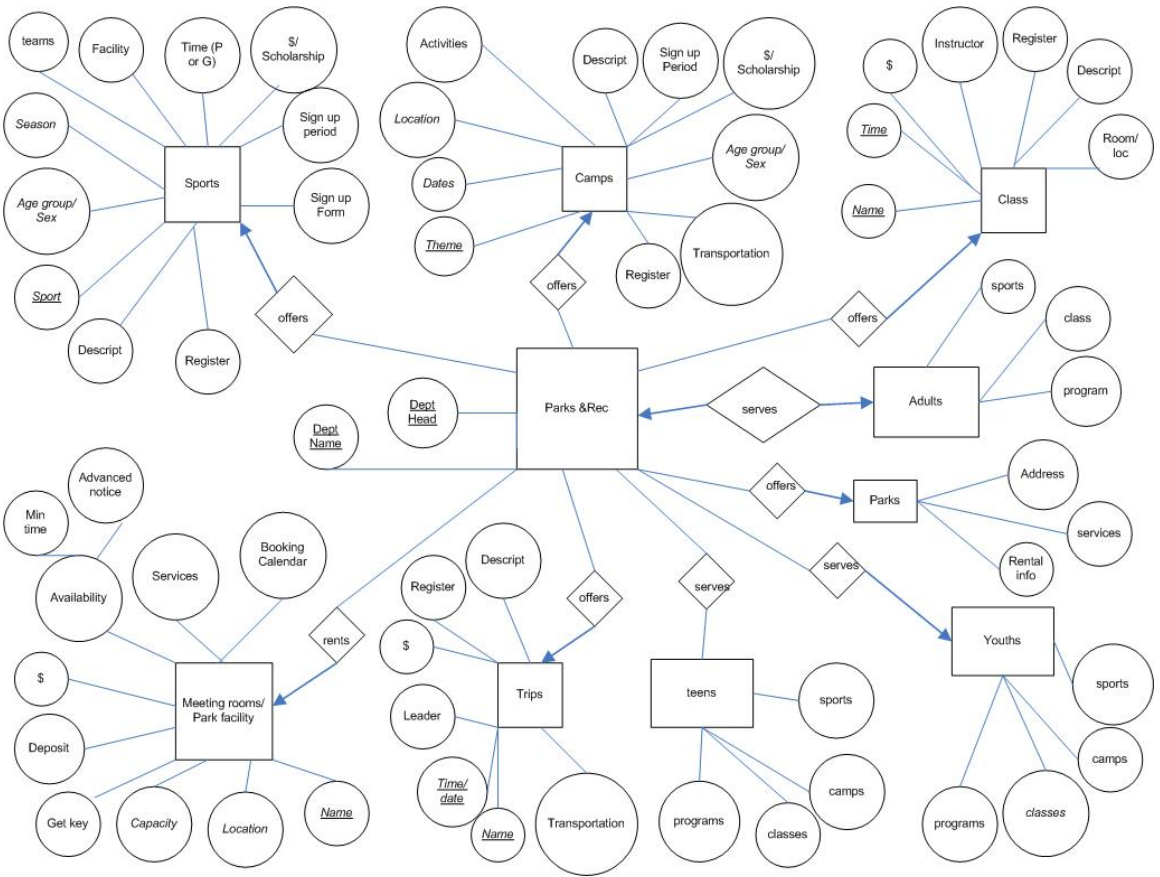
Appendix B

Figure 1



This is the first draft of the information map based on the interview. The map is drawn from a service perspective. It was presented to the Parks and Recreation Department for feedback.

Figure 2



This is the information map after the redesign meeting. Parks, youths, teens, and adults were added as entities and athletic teams was changed to sports. Rental equipment and after school programs were removed because they are not important enough to be their own entity.

Appendix C

Figure 1



Recreation and Parks

Keyword Search

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

[County Home](#)

My OC *OUR MISSION:* To enrich the leisure needs and quality of life for citizens by providing accessible facilities, creative and diverse recreation opportunities and a safe public park system

County Calendar

Job Postings If you cannot find what you are looking for on our web site try [Chapel Hill](#) or [Carrboro](#) Recreation & Parks

Site Map *Whats New/Current Highlight*

This is the Recreation and Parks home page. The top navigation bar is the point of focus. The links in row one are Contact Us, Sports, Classes, Trips, Meeting room/Facility Rental, Camps, and Parks. Row two consists of Youths, Teens, Adults, Special Populations, Job Postings, Calendar, FAQ, and home. The top row is the services offered and the bottom row contains the users groups. Duplicate information can be found in different links. The purpose of all the links is to organize the information in ways in which the user would search for it. The left navigation bar represents what could appear on the left of all Orange County Web Site pages. Both navigation bars remain consistent throughout the web site. The body of the page has a mission statement, links to Chapel Hill and Carrboro Recreation and Parks Departments and a place to highlight a current Recreation and Parks program.

Figure 2

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Orange County Recreation & Parks offers many youth and adult athletic programs. Along with athletic teams we also offer many sports related camps and clinics. Mail in the [registration form](#) or stop by our office.

Youth Athletics

[-Instructional Lacrosse](#)
[-Mite Baseball](#)
[-Tee Ball](#)
[-Girls Softball](#)
[-Tackle Football](#)
[-Flag Football](#)
[-Microsoccer](#)

Adult Athletics

[-Ultimate Frisbee Spring](#)
[-Co-ed Open Softball](#)
[-Co-ed Volleyball](#)

Camps/Clinics

[-Jr Prep Stars Spring](#)
[Basketball Camp](#)
[-Fast-Pitch Softball Clinic](#)
[-Fast-Pitch Softball Summer](#)
[Camp](#)
[-Ultimate Frisbee Camp](#)

Special Events

[-Youth 2-Ball](#)
[-Homerun Derby](#)

Sports are the most popular service offered by Orange County Recreation and Parks. The page contains a link to a PDF registration form and displays all the sports opportunities offered by Orange County. Sports contains two main user groups (Youth and Adult). Orange County also offers camps and clinics and occasionally has special events. Under the main headings is a list of all the sports offered in that category. Each item in the list is a link to a page containing specific information on the sport.

Figure 3

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Youth Instructional Lacrosse:

Ages: 8-13 years old. Cannot be 14 prior to Aug. 1, 2004

Registration: Mail in [registration form](#) or come to the office to register

Registration deadline: Feb 26th

Fee: \$35.00 per player (insurance is available for additional \$6.00). Fee includes t-shirt, cost of staff, and equipment. Participants are expected to provide their own stick, mouthpiece, shorts and shoes.

This is an instructional program and there will be no team assignment. This will also be a no check program, therefore no helmets or pads are required. Participants will attend 2- hour sessions. Practices will begin the last week of March and run for ten sessions. The day and time of practices will be announced later. (Instructors need)

Navigating from the Sports menu under the Youth heading the user can pull up information for a specific sport. Each sport description contains the age group, registration information and fee. When the site is updated by Recreation and Parks the page will also contain game locations and game times. The Youth Instructional Lacrosse page can also be reached from by following the Youth link in the navigation bar. In the Youth link it is listed under Sports.

Figure 4

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Classes:

Youths

[-Guitar](#)
[-Cheerleading](#)
[-Self-Defense](#)
[-Baton](#)
[-Basis Dance](#)
[-Acrylic Painting](#)
[-Piano](#)
[-Crafts](#)
[-Young Marines](#)

Teens

[-Babysitting](#)
[-Guitar](#)
[-Baton](#)
[-Basic Dance](#)
[-Piano](#)
[-Young Marines](#)

Adults

[-Piano](#)
[-Ballroom Dancing](#)
[-Country Line-Dance](#)
[-Hunter Safety](#)
[-Lunchtime Swing](#)
[-Social Dance](#)
[-Lunchtime Stretch](#)
[-Lunchtime Yoga\(Hatha\)](#)
[-Tai' Chi](#)
[-Food & Nutrition](#)

Seniors

[-Quilting](#)
[-Aerobics](#)
[-Line Dancing](#)

This page contains all of the classes offered by Orange County Recreation and Parks. Classes are broken down into the appropriate age groups. When the user follows a link to a specific class they will be taken to a page that contains class description, appropriate age groups, registration information, cost, time and location.

Figure 5

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Trips for all ages:

[Baltimore Orioles vs. Atlanta Braves](#)

[Merle Fest 2004 \(N. Wilksboro, NC\)](#)

An American Music Celebration (Bluegrass)

[2004 Nextel - All Star Race](#)

Charlotte, NC (Lowe's Motor Speedway)

The trips page offers all upcoming trips. Each trip link includes a description, date, time, registration information, cost and transportation.

Figure 6

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Meeting Room and Facility Rental:

These facilities are sites owned and operated by Orange County. They are open to the public for activities scheduled by the Orange County Recreation and Parks Dept. and as scheduled by other agencies for special programs offered to the community. Most facilities are available for use by private groups and individuals with a rental fee, facility deposit and after completing an application. Schedule facility use at least two weeks in advance. Fill out the appropriate application and Hold Harmless agreement and either mail both in or drop them off.

[Meeting Room and Park Rental](#)

[Athletic Facility Rental](#)

[Hold Harmless Agreement](#)

The links open a PDF file in a new browser window for the user. Each PDF file is an application for facility rental and contains what facilities are available, services the facility offers, location and cost. In the future Recreation and Parks would like to add an online facility rental calendar. The user will be able to see when the facilities are available and rent them online without having to print out the form and mail it in.

Figure 7

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Camps:

Summer

[-"Sun Fun" Day Camp](#)

[-Summer X-Press](#)

Sports

[-Jr Prep Stars Spring Basketball Camp](#)

[-Fast-Pitch Softball Clinic](#)

[-Fast-Pitch Softball Summer Camp](#)

[-Ultimate Frisbee Camp](#)

The camps page breaks camps down into two main categories. Summer camps are always very popular and various sports camps are offered throughout the year. The links to the camps contain descriptions, ages, dates, times, location, activities and a link to a mail in PDF registration form. Links to the camp information can also be found under the applicable age category.

Figure 8

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Recreation and Park Facilities:

The facilities listed below are sites owned and operated by Orange County. They are open to the public for activities scheduled by Orange County Recreation and Parks Dept. and as scheduled by other agencies for special programs offered to the community. Most facilities are available for use by private groups and individuals with a rental fee, facility deposit and after completing an application. Please call 245-2660, or drop by the Recreation and Parks administrative offices to schedule facility use at least two weeks in advance.

[Efland-Cheeks Park & Community Ctr](#)

[Homestead Community Center](#)

[Fairview Park](#)

[Northern Recreation Center](#)

[Central Recreation Center](#)

The parks page contains links to all the parks in Orange County. The links to the parks include the address and services available at the park. Recreation and Parks plans to add much more detailed information for each park.

Figure 9

Recreation and Parks

[Contact Us](#) | [Sports](#) | [Classes](#) | [Trips](#) | [Meeting room/Facility Rental](#) | [Camps](#) | [Parks](#)

[Youths](#) | [Teens](#) | [Adults](#) | [Special Populations](#) | [Job Postings](#) | [Calendar](#) | [FAQ](#) | [Home](#)

Youths:

Sports

[-Instructional](#)
[Lacrosse](#)
[-Mite Baseball](#)
[-Tee Ball](#)
[-Girls Softball](#)
[-Tackle Football](#)
[-Flag Football](#)
[-Microsoccer](#)

Classes

[-Guitar](#)
[-Cheerleading](#)
[-Self-Defense](#)
[-Baton](#)
[-Basis Dance](#)
[-Acrylic Painting](#)
[-Piano](#)
[-Crafts](#)
[-Young Marines](#)

Camps/Clinics

[-Jr Prep Stars Spring](#)
[Basketball Camp](#)
[-Golf Clinic](#)
[-Intermed Golf](#)
[-Golf Camp](#)
[-"Sun Fun" Day Camp](#)
[-Summer X-Press](#)

Programs

[-Skate Park](#)
[-Weekday Basketball](#)
[-After School Kickball](#)

Special Events

[-Youth Egg Hunt](#)
[-Youth Bike Rodeo/Safety](#)
[Day](#)
[-"FUN DAY"](#)
[-Blues & Jazz Fest](#)
[-Fishing Rodeo](#)
[-Hog Day Festival](#)
[-Youth 2-Ball](#)

The Youths page contains links to all possible youth activities offered by Orange County. The information under Sports, Classes, and Camps/Clinics can also be found by following the appropriate age category link from the top navigation bar. The Teens, Adults, and Special Populations are very similar in layout and navigation.