Interactive Parks Website for the Borough of Merton

An Interactive Qualifying Project Report

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2. Parks
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Executive Summary

Our sponsor, Leisure Services of the London Borough of Merton, is a governmental organisation which provides services such as park maintenance, sports groups, and clubs to the public of Merton. Leisure Services already had a working web system which provided information services and was part of the Merton community website. However, they were not satisfied with the state of their previous website, and so they assigned us with the task of creating a template for a new website which would help them provide information services to the public in an effective manner.

We researched background information on many elements of the London Borough of Merton, including factual information about Merton and its parks. Merton is one of the 32 boroughs that compose Greater London, England. It is an outer London borough and a suburb located south of London. Roughly 20 percent of Merton is occupied by 63 parks and open spaces. These parks include a variety of services, including sports facilities, water features, ornamental gardens, play areas, cafés, rest areas, one o'clock clubs (daycare), pavilions, woodlands, and nature conservatories.

We also researched background information on the website development process and important website design considerations. To design the template for the new website we followed the Unified Process. The Unified Process is an iterative and incremental development process based on a series of short, fixed-length small projects that continually enlarge and refine the whole system. The iterations in the Unified Process are organised into four major phases: inception, elaboration, construction, and transition. The website template went through several iterations

where feedback was given to us from Leisure Services after the completion of each iteration.

Our research shows that when designing a website there are four main considerations: usability, maintainability, governmental regulations and technical limitations. These four are fundamental criteria for good web design. Usability involves issues such as the client-site interface, data organisation, and navigability. Maintainability addresses the efficiency of training someone to update the website and one's ease of going through the updating process itself. Good websites also take into account governmental regulations regarding the issues of accessibility and content. Lastly, the final product is dependent on the capability of the hardware available to the website developer and other technical limitations.

Our goal for this project was to create a template for a website that could help Leisure Services provide their services to the public. To achieve this goal, we first determined what information the public and Leisure Services wanted on the website. We gathered this data by conducting focus groups and interviews with the staff of Leisure Services and people interested in the parks.

Focus groups are discussions between groups of people that are guided by a moderator about topics that interest the group and the researcher. We conducted a focus group with department mangers and our liaison to familiarise ourselves with the different departments within Leisure Services and get a better understanding of what type of information and services they wanted to see on the website. We asked questions ranging from the usefulness of different website features to frequently asked questions by the public. We also conducted three more focus groups with Friends of Merton, Lavender One O'clock Club, and sports club members. Through these focus groups we were able to obtain the public's opinion on the type of information and

services that they wanted available on the website. We asked questions about the type of information they would look for in a parks website, which parks they use and why, and what would make them use such a website. For those who were unable to attend the focus groups we e-mailed questionnaires and conducted phone interviews.

Another method we used in the data gathering process was interviews. Through interviews with the managers of the separate departments within Leisure Services we obtained more information about the staff's problems with the current website and their expectations of a new website. We asked questions similar to those in the focus group with Leisure Services, but more specific to each department. For example, we asked what type of frequently asked questions each department received from the public through phone calls, and also what information and links each department would like to have in their section of the site.

We categorised the data we gathered according to importance and ease of implementation in the website template. This created a priority ranking for each feature. To determine importance, lists of all the features were given to the department managers who then ranked them from most important to least important. Rank was also assessed by the number of times a feature was mentioned in the focus groups and interviews. We then compiled the results and applied our own ranking of ease of implementation to further rank the features. Then we used the rank of the features to determine which ones we should implement in the first template and which ones we could leave for implementation in later iterations.

By following this approach we implemented the following features in the first iteration of our template: navigation, information about parks, contact information, announcements, calendar events, links and frequently asked questions. Most people wanted a website that was simple and had easy navigation. Keeping this idea in mind,

we constructed the template of the website with unambiguous titles and links so that a user could easily navigate their way through the website to find the information. Content included on the website was information such as the facilities available at each park and contact information for specific departments. A search feature was implemented to enable a user to quickly locate the specific park or open space information they need by using certain criterion, such as location, name, or region. Also, to keep the community informed, we included an announcements page where any news about the parks or Leisure Services could be posted. Other features that were implemented in later iterations were a sitemap, contact information for Leisure Services and other organisations, and more options on searching and updating.

The main goal for the template was to help Leisure Services provide information about parks and open spaces to the general public. From our data collection we concluded that Leisure Services needed a site that provides an easily accessible interface, helps facilitate networking between local communities, and provides services directly to the public. This template provided Leisure Services with a general design for their new website which will be implemented in the near future. The website will be a resource that connects Leisure Services with the community and connects the communities of Merton with each other.

Abstract

Our project sponsor, London Borough of Merton Leisure Services, had a website that lacked adequate information about Merton parks. Our goal was to develop a template website that provides information about the parks. We conducted interviews and focus groups with Leisure Services' staff and the public to determine their needs for the website. From these results we produced a template website that satisfied Leisure Services and the public. We provided the community with information about parks through this template website, thus allowing better communication between the community and Leisure Services.

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1 <u>Introduction</u>

The internet is a popular medium for the distribution of information (Jacobson, Booch, & Rumbaugh, 1999). Many organisations have found the internet to be an effective and reliable means by which to provide those whom they serve with up to date information and services. While other media are established and widely used, the internet has additional appeal because it provides easy, global access and efficient updating.

When designing a website there are four main considerations: usability, maintainability, governmental regulations and technical limitations. These four are fundamental criteria for good web design. Usability involves issues such as the client-site interface, data organisation, and navigability (Nielsen, 2000). Maintainability addresses the efficiency of training someone to update the website and one's ease of going through the updating process itself. Good websites also take into account governmental regulations regarding the issues of accessibility and content. Lastly, the final product is dependent on the capability of the hardware available to the website developer and other technical limitations.

Our sponsor, Leisure Services of the London Borough of Merton, is a governmental organisation which provides services, such as sports clubs and one o'clock clubs, to the public of Merton. Leisure Services already had a working web system which provided information services and was part of the Merton community site. However, they were not satisfied with the state of their previous website, and so they assigned us with the task of creating a template for a new website which would help them provide information services to the public in an effective manner.

Although Leisure Services possessed information on their parks and services, they did not have a website through which they could adequately provide that

information to the public. There was no clear link on the Merton community website that directed the user to the Leisure Services web page thus making it difficult to access the information presented on the page. Furthermore, the website was difficult to navigate and it was overly challenging for users of the website to find the information they wanted due to an unintuitive website layout. The titles on the website were misleading or ambiguous, which may have caused confusion in users. Additionally, the lack of good organisation and up-to-date information made the previous site incapable of facilitating networking between communities in Merton which have an interest in Leisure Services.

Our goal for this project was to create a template for a website that could help Leisure Services provide their services to the public. We gathered data by conducting focus groups and interviews with people interested in the parks. We also e-mailed questionnaires to those who were unable to attend the focus groups. This helped us achieve our goal by helping us determine what information the public wanted on the website.

In order to design the site that would facilitate networking between local communities of Merton, we talked with some of the organisations with which Leisure Services had some type of association. In terms of design, we focused on the location of links between different parts of the new website. This was important because it aided movement and easy access between different sections of the website and related community sites.

This report outlines how we achieved our goals of providing Leisure Services and the public of Merton with useful information through the web. We first outline our background research. Second, we discuss the methods by which we determined the needs of Leisure Services and how the new website could best serve Leisure

Services employees and the general public. Third, we specify the results of our work. Finally, we give our concluding thoughts and recommendations regarding the eventual implementation of the new website and how it could be advertised to the general public. We intended for the website to be a resource that connects Leisure Services with the community and connects the communities of Merton with each other.

2 <u>Background</u>

In order to thoroughly understand the challenges that our project presented, we identified our project matters. In this chapter we briefly outline and discuss the relevant information we gathered for each of the background topics. Therefore we provide background information on many elements of the London Borough of Merton, including its current and historical information, its Unitary Development Plan, and its parks. We also provide background information on the website development process, important website design considerations, and the training of personnel for the updating and maintaining of a website.

2.1 Merton

Merton is one of the 32 boroughs that compose Greater London, England. It is an outer London borough and a suburb located 20 miles south of London. It is situated in London's south-west county of Surrey, south of the Thames River, and extends from Wandsworth in the north to Sutton and Croyden in the south. Merton covers an area of 3796 hectares (14.66 sq. miles), of which 713 hectares (2.75 sq. miles) are occupied by parks and open spaces. This calculates to roughly 20 percent of Merton being occupied by parks and open spaces (Encyclopedia Americana, 2002; AlSudairy, DelPaine & Soetadi, 1999; London Borough of Merton, 2002; Hutton, 2001).

2.1.1 *History of Merton*

Merton was established in 1965 when the boroughs of Wimbledon, Mitcham, the urban districts of Morden, and Merton merged. During the past 20 years the population of Merton has declined as more people have moved to London (Encyclopedia Americana, 2002; AlSudairy et al., 1999). Today there are

approximately 190,000 people residing in Merton according to the official website of Merton (London Borough of Merton, 2002).

2.1.2 Unitary Development Plan (UDP)

Open space in London is limited. Planning procedures are used to control future development. Merton's Unitary Development Plan (UDP), adopted in 1996, provides a framework for the development of land, development control, and conservation. The aim of the UDP is to present a clear statement of the policies and proposals of the Merton Council for the development and use of land.

The UDP consists of a two-part written statement and a proposals map. The first part of the written statement comprises the planning strategy for Merton. The strategic policies within Part 1 lay out the Council's general policies regarding the development of the Borough. The second part provides the detailed planning context, policies and site-specific proposals which will guide development over the next ten years. The proposals map designates site-specific proposals and boundaries to which certain policies apply (London Borough of Merton, 2002). For any development and/or expansion of an area within the borough, new proposals outlining the planned action must be submitted to the UDP and processed accordingly. This method also applies to the parks and open spaces located within the borough.

2.1.3 Leisure Services

Leisure Services is a department of the Borough of Merton focusing on leisure activities for the residents and visitors of Merton. The mission of Leisure Services is to provide information on many different topics. Through a variety of resources, such as the internet and pamphlets, people interested in the leisure activities and facilities of Merton can find information to help them make better use of their leisure time.

The Leisure Facilities and Technical Group (LFTG) manages the revenue and capital programmes from inside Leisure Services and is the framework of Leisure Services. LFTG covers the areas of arts, dining out, events and facilities, history, libraries, and shopping through the different departments within Leisure Services (London Borough of Merton, 2002).

2.2   Parks in Merton

In the Borough of Merton there are a total of 63 parks and open spaces. These parks include a variety of services, including sports facilities, water features, ornamental gardens, play areas, parking, cafés, rest areas, one o'clock clubs (daycares), pavilions, woodlands, and nature conservatories (AlSudairy et al., 1999; Hutton, 2001).

The parks can be used for many different purposes, ranging from picnics to sporting events. Different parks have facilities for different activities, such as tennis courts, bowling greens, paddling pools, and areas for hockey, football, cricket, and rugby. Also, many parks have wooded areas and nature conservatories with paths for walking, hiking, nature study, and bird-watching. The range of facilities and activities available at the different parks and their facilities are provided in Appendix A (Hutton, 2001; AlSudairy et al., 1999). The largest of the open spaces are Wimbledon Commons and Mitcham Commons, however of particular note are Wimbledon Park and Cannizaro Park. Wimbledon Park is well-known for its sports facilities, of which it has a large number, and Cannizaro Park for having over 400 species of trees and shrubs.

As illustrated in Appendix A, numerous facilities are provided for children. It is the borough's aim to provide safe play areas for all residents within their local area. The majority of open spaces and parks located within Merton have at least one play area suitable for children up to the age of 14, each with a selection of play equipment. Several sites provide paddling pools during the summer period. All play facilities are dog-free. There are a number of shows and events held each year in the parks of Merton. Included in these are The Horticultural and Lions Summer Show at Morden Park and a fireworks display for Guy Fawkes Night (or Bonfire Night) at Wimbledon or Morden Park (London Borough of Merton, 2002).

At the time this project was initiated, the website for Leisure Services had a brief description of the organisation and contact information for a few of the staff members, much of which was out-dated. Information on park usage was not readily available on the internet. Most of the parks listed in Appendix A are small and would not warrant a website, however there are a few large parks for which there is a lot of easily accessible information on the internet. To locate information on the parks, telephone numbers are provided on the Merton website so visitors can call Leisure Services to request information.

2.3   Website Development Process

An important aspect of creating a new website is following a software development process that will guide the project to completion. A software development process is a method to build, deploy, and maintain software such as a website (Larman, 2002). According to Clickit (2002), a leading UK center for internet software development, there are different types of software development methodologies that are used by many companies. For this project we researched two

different types of methodologies: the Unified Process and the System Development Life Cycle Model.

2.3.1   *Unified Process*

The Unified Process is an iterative and incremental development process based on a series of short, fixed-length small projects called iterations that continually enlarge and refine the whole system. The iterations in the Unified Process are organised into four major phases: inception, elaboration, construction, and transition (Larman 2002). The inception phase is the feasibility stage when the scope and a vague vision of the project are brainstormed so that it can be determined whether the project should continue or stop. During the elaboration phase the vision is refined, requirements and scope are further identified, and a preliminary version of the core architecture is implemented. During the construction phase, the majority of the website is implemented as all parts of the system are designed. Also, documents that support the application such as training manuals and users guides are prepared during this stage. Lastly, in the transition phase, the product is put into use and tests are conducted to fix any problems (Larman, 2002). The iterations in the Unified Process are further organised around five core workflows: requirements capture, analysis, design, implementation, and testing activities (Jacobson et al., 1999).

The second key concept of the Unified Process is that it is use-case driven. Use cases are descriptions of what the system being developed is supposed to do for each user. A system's "user", in this case, can be any person or (other) computer programme which requires a service from that system. Therefore, use cases describe what services the system shall provide for its users and how the system provides each of those services (Jacobson et al., 1999). Being use-case driven allows a project following the Unified Process to always keep its focus on producing a system which

meets the needs of those whom it serves. At every step of the process, the objectives are defined by how they will meet the goals of providing services for users.

2.3.2   *System Development Life Cycle Model*

Another website development process that we researched is the System Development Life Cycle Model, also known as the Waterfall Method. According to Britton and Doake (1993), the System Development Life Cycle Model was established in order to have a structured method of analysing and designing systems. There are seven stages to this process: problem definition, feasibility study, analysis, system design, detailed design, implementation, and maintenance (Britton and Doake, 1993).

Each stage consists of tasks that are defined, documented, and agreed upon by the time of completion. The outputs of each stage are known as deliverables. Deliverables are usually reports or documents that can be used in the upcoming stages. Completion of each stage can be represented as a milestone so that the development of the project can be monitored (Britton and Doake, 1993).

The first step to creating a new system is problem definition where the problem of the current system is identified and the objectives of the new system are defined. Everyone participating in the project must agree on these matters before moving onto the next stage. Once an agreement has been reached, a feasibility study is conducted. At this stage the current system is studied and analysed to understand the purpose and function of the required software. Preliminary work is performed to examine the technical, financial, and organisational feasibility of the project before making any great commitment (Britton and Doake, 1993). At the end of this stage, a document is developed describing the specific recommendations for the current system, personnel assignments, costs, project schedule, and target dates. This is a

crucial stage in the project because it determines the future of the project (Clickit, 2002).

If the feasibility study favors continuation of the project, an analysis of the current system and the new system is performed. At first staff members are interviewed to understand the problem of the current system. Then the requirements for the new system are specified before any implementation decisions. The facts and information gathered during this stage are organised and documented (Britton and Doake, 1993).

When analysis is complete, solutions to the problem are brainstormed at the system design stage. These solutions have to meet the requirements of the system that were identified in the previous stage. Once all the possible solutions are brainstormed and discussed, one of the proposed solutions is chosen at the detailed design stage. The system is specified in detail, often looking at the technical design of the project. The design is then implemented. During implementation, the programme code is generated, tested, and documented (Britton and Doake, 1993). Programming codes such as C, C++, Java, and Visual Basic are appropriately chosen, depending on the type of application. Once the code is written, the programme is tested, using different methodologies to search for bugs in the programme. Lastly, in the maintenance stage, the system is maintained and additional changes are made as the operating environment changes (Clickit, 2002).

2.3.3 Applying the Unified Process

There are two key aspects to the Unified Process which make it highly useful to many development projects. First, the Unified Process is iterative and incremental. Second, the Unified Process is use-case driven. After conducting our research on the two methodologies of the development process, we have decided to use the Unified

Process for our project. We came to this conclusion for several reasons. First, in the Unified Process the progress of the workflow is visible early on in the project. Iterative development allows for early detection of critical problems that might arise later. When problems are detected early on during development, any foreseeable delays in the schedule can be prevented. Second, the clear-cut division of the project allows for early and continuous feedback from the software's intended users. This feedback helps keep the development team remain on target towards the ultimate goal, as the needs of the users and the requirements of the system continuously change throughout the project. By having controlled iterations, it is relatively easy to adapt to changes in requirements while in the midst of the development process. This was particularly important to our project as we planned to gather and analyse our data in parallel to designing the new site. We knew that we would benefit greatly from a development cycle which would allow us to easily modify our design and product as we gathered more information and refined our vision of what we were producing. Finally, because the system is divided into smaller tasks, the complexity of the system is diminished and the team is not overwhelmed by the workload (Larman, 2002; Jacobson et al., 1999). Jacobson et al. (2002) state that "developers work more efficiently toward results in clear, short focus rather than in a long, ever-sliding schedule" (p. 8).

Experts also agree that the Unified Process is a better model to follow than the Waterfall Method. The iterative development was identified as one of the four common factors for success in a two-year study of successful software projects reported in the *MIT Sloan Management Review* (Larman, 2002). Jacobson et al. (1999) explain that risks (any concerns that may inhibit the success of the project) are less problematic in the Unified Process compared to the Waterfall Method. As shown

in Figure 1, the serious and potential risks are identified in the first two phases of the
iterative development through means of multiple iterations. The remaining risks are
prioritised in order of importance in the beginning phase of construction. In the
Waterfall method, serious risks remain throughout the majority of the project. As a
result, problems may arise in the later phases of the project that could cause delay in
the completion of the project. Figure 2 shows that in iterative development,
implementation starts in the beginning of the project and continually builds as
problems are identified and resolved throughout the project. In contrast, the
implementation in the Waterfall Method starts only after requirements, analysis, and
design are completed. The major problems do not appear until testing is conducted.
This hinders the progress of the project and causes for a significant delay in the
project (Jacobson et al., 1999). Since our project was completed in seven weeks we
developed the template of the website through several discrete iterations to ensure
success. This is described further in section 3.4.
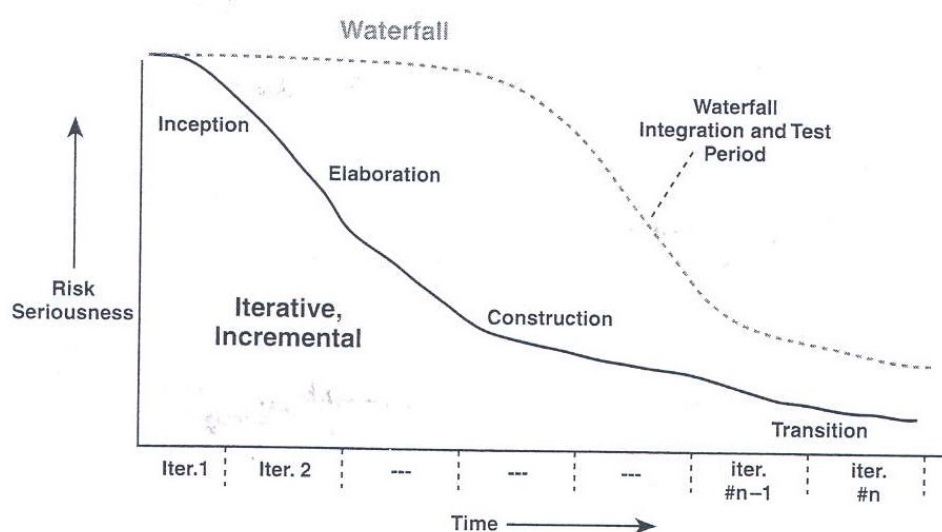
**Figure 1: Comparison of the Unified Process and Waterfall Method on the
Seriousness of Risk throughout Time**

(Source: Jacobson et al., 1999)
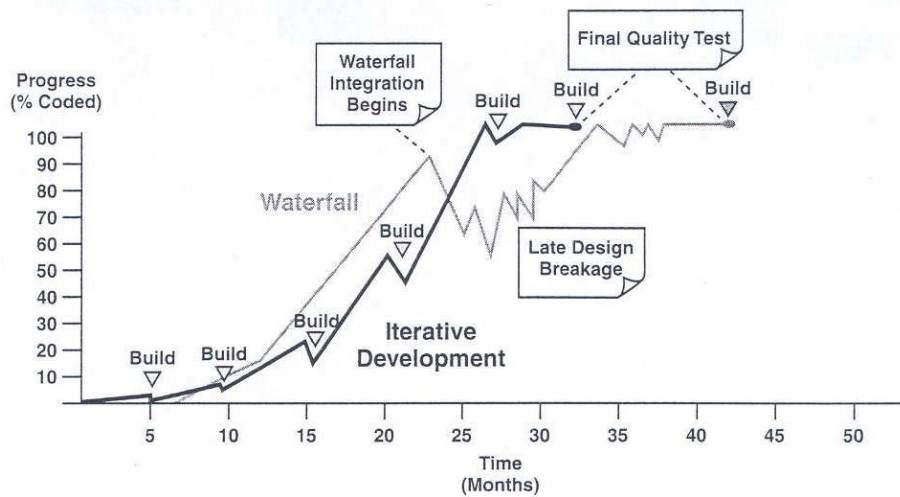
Figure 2: Comparison of the Progress of a Project by using Unified Method or Waterfall Method

(Source: Jacobson et al., 1999)

2.4   Site Design

With the recent surge in technology, there are more tools that organisations and companies have at their disposal to reach the public. The internet is one such tool which has become increasingly popular and has increased the competition among companies. There is so much competition that companies spend large amounts to make sure that their products are seen by most public eyes. A statistic claims this expenditure to be around $9 billion in the third quarter of 2002 in just the U.S. (Gyimesi & Kerris, 2002). Jakob Nielsen (2000) says that "your competition is not limited to other companies in your industry. With all the other millions of sites out there, you are in competition for the users' time and attention" (p.11). This is why a good website can assist in the success of an organisation by providing the required exposure. The keys to creating a good website are following widely accepted usability guidelines, and legal guidelines set up by local authorities. These are discussed in greater detail in the following sections.

2.4.1   Usability

A good website has to meet usability guidelines, which encompass a wide variety of issues. The first important issue is managing the area of display, which means giving users the most information possible on their screen. The second issue is navigation through the site, which means providing information in an organised and easy-to-find manner. The last issue of usability is accessibility to the site, which says that all users should be able to view the site equally (Nielsen, 2000).

Website design can be improved by keeping the entire design simple (Nielsen, 2000). This is important for two reasons. First, making the design simple makes any maintenance (repairing and updating) relatively easy. Second, the website should not be so immensely complicated that users feel overwhelmed with information and can not decide what is relevant to them and what is not. We have addressed these issues to make sure that our website is not just a database of information, but a rewarding experience for a user. For our website's proper operation, it had to be compliant with the hardware and software of Leisure Services' server and of the website users.

2.4.1.1   Display Management

Display management of the website primarily refers to the utilization of maximum possible area of the screen for information dispersal, and minimum area for unnecessary navigation, advertisements and blank space. This does not mean that navigation is not needed. Navigation options should be present in the right amount; any more or less will reduce the efficiency of the website. Users should be able to navigate easily, but the navigation should not impair the information display (Nielsen, 2000). The next section explains navigation in greater detail.

It is sometimes difficult to run a commercial website without the help of outside investors. In return those investors require the appearance of their

advertisements on the website. Even though it be might financially helpful, it is important to keep the advertisements to a minimum because they might annoy users thereby reducing the traffic on a website (Nielsen, 2000).

Blank space that appears on a web page is known as "white space." This white space can alter the look of a page, making it seem blank and lacking information. Sometimes when users are in a hurry looking for information, they might just skip a website because it seems too blank. Therefore avoiding excess white space in the creation of a web page is good practice (Nielsen, 2000).

2.4.1.2 Navigation

Providing good navigation means that users of the site must be able, at all times, to know where they are, what they are viewing, and how to get to any other information or services that they need. In order to meet this need, four main considerations need to be taken into account when designing a website: how well users will understand the site's structure, how to provide visual indication to users as to where they are and what they are viewing, ensuring that users will know where they can go and how to get to the content they want, and the layout, description, and display of a site's hyperlinks.

First, when designing the structure of a site, how well users will understand the site's structure must be taken into account. Some site designers have made the mistake of thinking that users will understand the site's organisation simply because it is modeled after the way in which the hosting company's business works. A study has shown that this is not the case (Spool et al., 1999). For instance, if a site is designed using terminology that relates specifically to the way in which the parks of Merton are organised, many users may be confused because they are not familiar with that terminology. In fact, the same study (Spool et al., 1999) showed that users do not

create a model in their mind of how a site is organised. Therefore, the design of a site cannot assume that the user knows where they are in the site's hierarchy of pages by virtue of understanding the structure of the company.

This problem presents a designer with the second consideration, which is how to provide visual indication to users as to where they are and what they are viewing. Many websites suffer from what Jacob Nielsen calls "The Homogeneity Problem" (Nielsen, 1990). The Homogeneity Problem refers to a problem of site users becoming confused as to where they are in the site and what kind of information they are viewing because all of the site's content looks the same. One effective solution to this problem is to vary the font sizes, colours, and styles depending on what information is being presented and to be consistent with what font-scheme goes with what type of content. In this way, users can gain some intuition as to what type of data they are currently viewing based on what the text looks like. Users will be able to tell when they have moved to a different type of data because they are more likely to recognise the change in font scheme.

With the above two considerations taken into account, a designer has helped ensure that users of a site will know where they are and what they are viewing. The third consideration, then, is to ensure that users will know where they can go and how to get to the content they want. Therefore, the choice of which navigation instruments to use and how to implement them is an important one.

When considering the navigation tools which a site should offer, there are many options. One option for providing navigation aid is to build a website using frames. Frames are an HTML convention wherein pages are displayed in multiple, independent windows, can be used to separate navigation bars. Usually, frames are used to make a persistent vertical navigation area which serves to show the user where

they are and give them options as to where they can go. A second commonly used strategy is to put horizontal navigation bars, either on the top of each page, on the bottom of each page, or both (Spool et al. 1999).

Another navigation issue is that users often get confused about where they are in a site's hierarchy. To help alleviate this problem a "You Are Here" indicator can be given. In studies of user behavior this approach has been shown to be less than totally effective. Many users do not notice the indicator (Spool et al., 1999). Instead, a site map can be provided to help them determine where they can go in the site and where the information they are looking for is located. A sitemap is a hierarchal display of all the pages belonging to a site, organised in such a way as to show the location of each page in relation to each other. Each item on a sitemap provides a hyperlink leading to the corresponding page of the site as well as a brief description of what that page of the site offers. Sitemaps can be used by users as a last resort to find the information or service they desire. Since each item in the sitemap has a brief description of what that page offers, users can often find what they are looking for by recognizing a key term or phrase in the brief description of a page given on the sitemap.

An additional consideration in website design is the layout, description, and display of a site's hyperlinks. Hyperlinks are the primary means of traveling among a site's pages. It has been shown that if a site's users do not understand where a site's hyperlinks lead them, they can quickly become confused and lost within that site (Spool et al., 1999).

There are many ways to present a site's hyperlinks in a way that helps navigation. The descriptiveness of hyperlinks has been shown to correlate to how well users navigate a site (Spool et al., 1999). A clear, complete, and concise description of where a hyperlink leads them will help many users understand where they will be if

they follow the link. Another way to help users stay oriented while navigating a site is to avoid using ambiguous terms and similar descriptions. Users will often choose the wrong link when presented with two links which seem similar (Spool et al., 1999). Similarly, users will often become flustered and stuck when faced with hyperlinks whose descriptions do not make sense to an average user (though they may have made sense to the site's designer) (Spool et al., 1999). Therefore, usage of terms which can be interpreted in multiple ways by users and whose meaning may not be clear to users should be avoided. Another way to help lower confusion among a site's users is to vary the descriptions of adjacent hyperlinks so that no two are likely to seem similar to most users.

In addition to needing to move to new places in a site, users also need to backtrack to parts of a site from which they recently came (Nielsen, 1990). Well-placed hyperlinks can help users backtrack through a site. Another way to assist users in backtracking is to provide them with a visual representation of a site's structure which clearly marks the places that users have already been, and how long it has been since they have been there. Alternatively, a list of recent places users have been can be helpful to users when backtracking (Nielsen, 1990).

2.4.1.3   Accessibility

The ability of a website to adapt to different kinds of users using different kinds of equipment is an important issue that needs to be addressed. Jennifer Niederst says that a web designer should always "keep the lowest common denominator in mind" (Niederst, 1996, p.49). This means there should be options available for users with slower internet connection, users with smaller or bigger monitors, users with different or older web browsers, and users that are physically impaired. In other words:

When you design for the web bear in mind that not everyone out there is equipped with the best browsers running on a souped-up computer system over a lightning-fast Internet connection. Although it's good to take advantage of the latest features in Web publishing, you also have to design with a mind towards those who are viewing the web under less than optimal conditions. (Niederst, 1996, p.49)

For users with slow internet connections a website should have an optional text-only version that should be quick to load and provide all relevant information. Sometimes websites are dependent on graphics to relay certain information, such as websites that contain weather information. They usually use a shining sun, raindrops and snowflakes to represent sunny weather, rain and snow, respectively. If a user has a slow connection he/she would have to wait until that graphic completely loads before getting the weather information for a certain area. If the website has a text box that appears in the place of a partially loaded graphic, the user can still obtain the information in a relatively short amount of time. Therefore, it is necessary to have such an option available to maintain a good user return rate. Figure 3(a) shows a fully loaded website displaying all its data. Figure 3(b) shows the same site without fully loaded graphics, yet it gets almost all of its data to users quickly by inserting text explaining a graphic until that graphic is loaded on the browser. As an addition, there should be a separate printable version of the website available for the ease of the user (Nielsen, 2000).

Not all web users have the same size display equipment available to them. For users with smaller monitors the site should be able to adjust so that viewing the whole screen will not require scrolling left and right. This can be done by putting in code that can sense the width of the display size and then have the information tile more lengthwise and less widthwise. Similarly, for users with bigger monitors the site should not appear to be text and pictures on one side of the screen surrounded by white spaces.
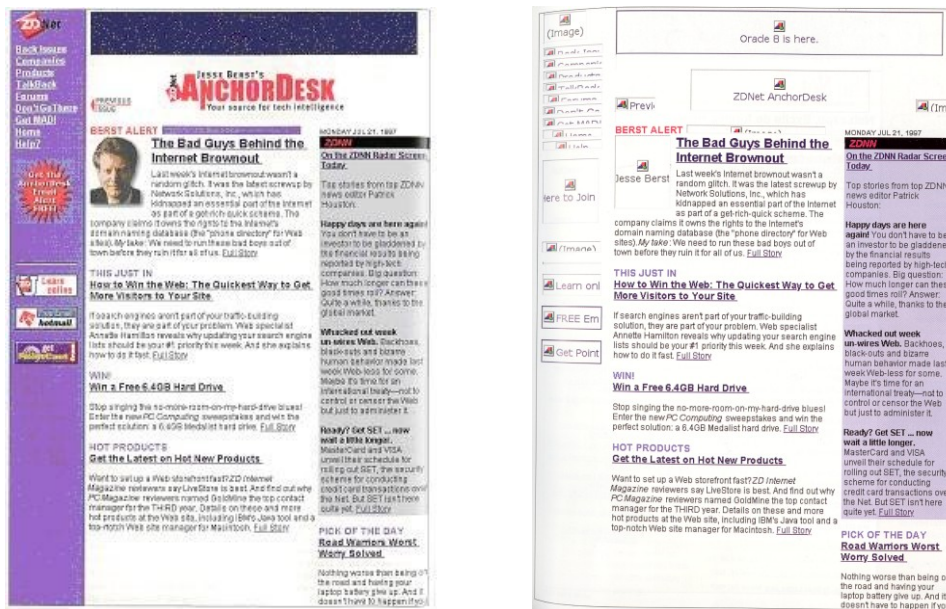
Figure 3: (a) Fully Loaded Website, (b) Partly Loaded Site Displaying All Information

(Source: Nielsen, 2000)

There should be similar adjustments so that site will display itself until it has reached the maximum width of the display (Nielsen, 2000).

A very important accessibility guideline is to make the website compliant with older versions of web browsers. Many people do not have the latest versions of internet browsing software. This should not become a hindrance in their search for information. Not all older browsers are capable of displaying information and graphics created using programmes that have only become available recently (Niederst, 1996).

Finally, for users with disabilities, the site should provide alternate versions that comply with guidelines, such as the Disability Discrimination Act (DDA) of 1995, established by the local authorities. The DDA is explained in greater detail in section 2.4.2 of this chapter.

2.4.2 Disability Discrimination Act

Certain designs can make web accessibility difficult for people with disabilities. Programmes or designs that can lead to difficulty in accessibility are portable document files (PDFs), tables, colour schemes, and plug-ins such as Flash and JavaScript. Such features can be used to design a website but there must be an alternative method to display the information so that the site can be accessible to people with disabilities and not discriminate against them (Sloan, 2001).

The Disability Discrimination Act (DDA) of 1995 is an Act that was passed in the United Kingdom to prevent discrimination against people with disabilities. A disability is defined in the DDA as "physical or mental impairment, which has a substantial and long-term adverse effect on his ability to carry out normal day-to-day activities" (Disability Discrimination Act, 1995 Part I, section 1). The DDA addresses issues such as employment, rights to services, and facilities for people with disabilities. The DDA protects people with disabilities from discrimination arising from their inability to use the same services and facilities as the general public. Discrimination is defined by the DDA as an act of mistreatment towards a disabled person or to act less favourable towards a disabled person due to their disability (Disability Discrimination Act, 1995).

Sloan (2001) explains that the Internet is one of the services that must follow the regulations of the Disability Discrimination Act. Section 19 of Part III in the DDA 1995 states ways a person with a disability can be discriminated against by a service provider that are relevant to Internet and web accessibility. The Act states:

1) It is unlawful for a provider of services to discriminate against a disabled person-
    a) in refusing to provide, or deliberately not providing, to the disabled person any service which he provides, or is prepared to provide, to members of the public;

b) in failing to comply with any duty imposed on him by section 21 [Duty of providers of services to make adjustments] in circumstances in which the effect of that failure is to make it impossible or unreasonably difficult for the disabled person to make use of any such service;

c) in the standard of service which he provides to the disabled person or the manner in which he provides it to him;

d) in the terms on which he provides a service to the disabled person (Disability Discrimination Act, 1995).

Thus, websites must be designed so that people with disabilities can gain accessibility just as well as the general public (Sloan, 2001). Under the DDA, if the service provider has a practice, policy, or procedure that makes it difficult for a person with disabilities to use the service, then the provider must make changes to accommodate everyone (Rigg, 2002).

Disabilities that web designers must consider are visual impairments, auditory impairments, and motor problems. A text-based browser such as Lynx and a screen reader can be used to accommodate people who are visually impaired. These programmes allow the computer to "speak" so that the user can hear the text that is on the screen. Alternatively, there can be a display of Braille so that the user can feel the words (Sloan, 2001). The Royal National Institute for the Blind (RNIB) also suggests that the minimum font size used on the site be 14 point to accommodate partially sighted readers (Jarrett, 2001).

A text equivalent must be provided for every non-text component on the site to accommodate users who are blind. Alternative text attribute (ALT) tags are helpful because they display a textual description of an image when using a text-based browser or a screen reader. If an image is used to create a link to a different website the 'ALT' tag provides text that states where the link leads the user. Without the use of 'ALT' tags, people who are partially or completely blind can have a difficult time navigating through the site (Sloan, 2001; Zimmerman, Roll, & Yohon, 2001).

The Royal National Institute for the Blind (RNIB) website provides additional guidelines on how to make a website more accessible to people with disabilities, especially those who are visually impaired. RNIB suggests that information provided in a PDF form should be available in an alternative way such as an HTML or text version of the information so that it can be read by software that accommodates the visually impaired. Text based browsers which are used by users with disabilities do not display tables the same way as graphical browsers. In a text-based browser the content is displayed without the columns, which may distort the table. Information presented in the table format needs to be understandable even in a text-based browser. RNIB also suggests that contrast between the background and the text is important to accommodate users who are colour-blind or users who can only see certain colours. If plug-ins such as Flash and JavaScript are used on a website, an alternative format is needed to display the same information via plain HTML or text. Not all users desire or have the capability to download such software so an alternative way for everyone to access this information is necessary (Royal National Institute of the Blind, 2002).

People who are unable to hear can be accommodated by the use of captions on video or audio clips, which allow the user to read what is being said in the clip. Users who have difficulty using a keyboard or mouse because of mobility problems can use a special input device to navigate throughout the site. The length and complexity of text on websites must also be considered for those people who have learning disabilities (Sloan, 2001).

Many commercial software developers have begun providing resources to aid web developers make their site more accessible to the general public, including people with disabilities. For example, the World Wide Web Consortium (W3C) provides guidelines and helpful hints that assist designers to develop more accessible

sites. This resource provides a helpful checklist of components that must be incorporated in developing a website. This resource also rates the importance of each component in developing a website so that it is accessible to everyone (Chisholm et al., 1999). Another resource that is available over the web is a programme called "Bobby". This programme, created by the Center for Applied Special Technology (CAST), allows the web designer to test their website to ensure that the site adheres to the W3C guidelines and is accessible to everyone (Zimmerman et al., 2001; Watchfire Corporation, 2002).

2.5   Website Technology

In order to determine how websites can be implemented and presented to web users, some research into how the internet works was necessary. Below is a brief overview of those aspects of how the internet works that we felt were most important to our project.

The internet is an information transfer protocol which allows computers to communicate data with each other. Computers which are permanently connected to the internet for the purposes of facilitating communication between other computers and providing data are known as servers. Any computer accessing a server is known, in that function, as a client. The Hypertext Transfer Protocol (HTTP) is used to facilitate communication between a client and a server (Spainhour and Eckstein, 1999).

Using HTTP, millions of computers around world share data with each other over a network known as the World Wide Web (a name referring to the "web" of data connectivity among the many computers). World Wide Web (or just "web") documents are encoded using the Hypertext Markup Language (HTML). HTML is a language, standardised by the World Wide Web Consortium (W3C), which uses

special embedded directions which specify the layout and content of documents (Spainhour and Eckstein, 1999).

HTML itself only specifies how static content is to be displayed by a web browser. Other languages and interfaces, such as The Common Gateway Interface (CGI), can be accessed through HTML in order to provide further functionality. CGI is a standardised system of obtaining input from a web user. It can be used along with HTML in order to allow users of a website to access other programmes on the site's server. CGI allows a web page to call up a programme on the page's server and give it user-specific input (Gundavaram, 1996). It allows HTML pages to both give and receive custom information to and from the site's users. Therefore, CGI scripts can be used in order to make interactive websites which respond to different needs of users.

One useful application of CGI scripts is the creation of a web-interface from which a site can be modified and its content can be updated. As mentioned above, CGI can take in user input from an HTML page and pass it to a database. This way, a website using CGI can provide customised services and two-way communication of data to its users.

CGI can only be implemented via a scripting language. In order to use CGI scripts, a website needs to have a scripting language in which those scripts are written. Our choice of language for this purpose was the PHP: Hypertext Preprocessor (PHP). PHP is a server-side scripting language which can be used to produce dynamic content via HTML pages (Spainhour and Eckstein, 1999). PHP is a free and publicly available language which allows for the creation of dynamic HTML content. According to PHP's home website, PHP is "especially suited for Web development." and "allow[s] web developers to write dynamically generated pages quickly" (PHP, 2003). Because PHP scripts are executed solely by the server, the client does not need

to have special software (beyond that which reads HTML) to be able to read the PHP-produced HTML page. Additionally, the client's computer is not taxed by the need to process the scripts, thereby decreasing the load time of pages. Therefore, PHP is a means of producing dynamic HTML content which results in a website with good accessibility. These features make PHP a highly accessible solution to providing dynamic HTML content, including access to CGI scripting, for a site's users.

Besides getting input from a site's users through CGI scripting, PHP can be used to insert that data into an information storage system called a database. Facilitation of database connection is a popular use of PHP (Spainhour and Eckstein, 1999). Code libraries for many commonly used database systems are included in PHP allowing easy, straightforward access to databases such as MySQL. MySQL is a database server which uses the structured querying language (SQL) and is available to the public as free software under the GNU General Public License (MySQL, 2003). A database is a system that runs on a web server and stores data which can be filtered through and accessed by applications running on the server. Web users can access the data stored in a database via HTML through the use of CGI scripts via a scripting language such as PHP.

When designing the structure of how a website system works, it is often beneficial to break a system into three layers, each of which handles a portion of the site's functionality; such a system is known as a three-tiered system and is illustrated in Figure 4. In a three-tiered system, the first tier is the data layer and provides persistent data storage. This layer is responsible for simply holding all of the site's data and providing an interface to tier two by which that data can be accessed. The second tier is the logic layer and is responsible for all of the business/operational logic which it uses to tell tier three what content should be displayed.
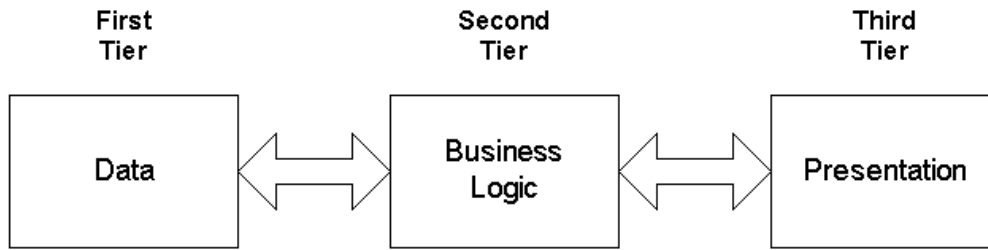
Figure 4: The Three-Tiered Website System
(Source: Sweat, 2001)

Finally, the third tier, or presentation layer, determines how the actual information appears to the site's users.

Effective use of a three tiered system provides a structure that helps ease long-term maintenance and allows for good scalability, enabling the site to be easily expanded (Sweat, 2001). By separating the data storage layer from the presentation and logic layers, the layout of the website's content can be designed and altered without concern for how the data is stored and how it is accessed. This allows visual HTML designers to alter the site without needing to know about how the site accesses its data, how it links its pages together, and how it provides services for its users. For example, consider the case where a website has a searching service which allows users to filter through all of the contact information on the website. Perhaps this service involves several query boxes and displays information in a separate area. Using a three-tiered system, the HTML designer could change the location of each of the query boxes and information displays without any changes being needed in the system which executes those services.

Another advantage of separating the layers of a three-tiered system is that data can be stored in any number of systems such as databases or file systems. The benefit of doing this is that the system is able to access only the data it needs and only when it

needs it and therefore the overhead of the system is greatly reduced. Additionally, with a separated data layer, the data-storing systems can be changed with very little alteration needed for the rest of the system. This helps make the system highly extensible, which can be a great benefit to any organisation as changes in databases and file systems are likely to occur during a website's lifespan.

2.6   Background Conclusion

Through our background research we gained a comprehensive view of the proposed problem, and an understanding of the methods that were necessary to fulfill the requirements of this project. In order to successfully complete our project we researched all related areas, including the Borough of Merton and its parks and open spaces, web design issues, website technology, and relevant government regulations. From our preliminary research, we learned about Merton and the functionality of its parks and open spaces. We also learned the different development processes in creating a website, good web design, and the technology used for website. Lastly we learned about special guidelines we have to abide to in creating this website template such as the Disability Discrimination Act of 1995. In the following chapter we explain the methods we used to gather data regarding the content and design of our website template.

3 <u>Methodology</u>

The goal of this project was to create a bridge between the general public and Leisure Services by creating a website that has information about the facilities and activities of the parks of Merton. In order to achieve this goal, we learned about the needs and interests of the people of Merton as they were the expected users of the new site. We also evaluated the structure and organisation of Leisure Services so that the site could also meet their needs. We gathered data through focus groups, interviews, and questionnaires with the staff of Leisure Services and the general public.

In this chapter, we discuss our data collection rationales and procedures, including focus groups with department managers of Leisure Services and the public, interviews with the web managers of the current Merton website, and questionnaires for the staff and public. A timeline for completing these tasks is in Appendix B.

3.1 Focus Groups

One method we used to gather data was to conduct focus group interviews. Focus group interviews are discussions between groups of people that are guided by a moderator about topics that interest the group and the researcher. Gathering a small group of people allows for discussion amongst the participants and encourages them to speak freely about their opinions on certain topics. Such interaction between people can trigger new ideas and can lead to a lot of unexpected yet important information. In this way, the group interaction of a focus group interview helps aid the comprehensiveness of the feedback received. Additionally, an advantage to organizing focus groups is that if someone does not understand a question, it can be immediately clarified (Berg, 2001).

According to Berg (2001), there should be no more than seven subjects in a focus group but this number can be arguable. There is a disagreement between social scientists on the number of participants that compose a small focus group. Some sources state that a small group consists of six to nine participants whereas other sources suggest eight to ten participants (Berg, 2001). Greenbaum (1998) classifies focus groups into different types where a Full group consists of eight to ten people and a Minigroup consists of four to six people. In any case, both researchers agree that having smaller size focus groups is more effective for complex problems because more in-depth information can be obtained in a smaller group than in a larger group (Berg, 2001; Greenbaum, 1998). From this research we decided to get as many participants as we could from the public and then divide them into a series of focus groups comprising of four to seven people.

We chose to use focus groups for our project because we believed that the group interaction would help us get all the important information from the different perspectives of each person. For example, we thought that having mothers of young children discuss each question amongst each other as well as with us would help them locate the important issues concerning their use of the parks with their children. Collectively, the parents of young children may be more successful in determining all the issues important to them, whereas any one of those parents alone may not be able to think of all the issues regarding parks which concern them.

For our data collection, we held focus groups with department managers of Leisure Services who have particular interest in the parks, Friends of Merton, members of sports leagues in Merton, and the Lavender One O'clock Club. We also held focus groups with the staff of Leisure Services to get feedback o our website template (see section 3.1.5). Table 1 displays detailed information about each focus

Table 1: Focus Group Details

Group Participants	Date	Location	Number of Participants
Department Managers	13/01/2003	Leisure Services, Merton	6
Lavender One O'clock Club	22/01/2003	Lavender One O'clock Club, Colliers Wood	6
Friends of Merton	23/01/2003	Leisure Services, Merton	2
Sports Club Forum	29/01/2003	Leisure Services, Merton	3
Staff of Leisure Services, website iteration #1a	14/02/2003	Leisure Services, Merton	10
Staff of Leisure Services, website iteration #1b	14/02/2003	Leisure Services, Merton	6
Staff of Leisure Services, website iteration #2	21/02/2003	Leisure Services, Merton	12

group that was conducted. Our goal in selecting members of the focus groups was to get volunteers that were interested in the welfare of the parks and to get a comprehensive selection of different types of park users.

In each focus group there was a moderator who guided the group through the discussion by asking several questions to initiate a conversation amongst the group. The department mangers focus group questions can be found in Appendix C and the focus group questions asked to the public are in Appendix D. There were two note-takers who wrote down everything stated in the focus group. These notes written during the focus groups were later compiled together and transcribed into a word processor so that the collected data was understandable.

We encountered a few obstacles as we organised focus groups with Friends of Merton and various sports clubs in Merton. We obtained a list of names for each group from our liaison and requested phone numbers from the administrative

department. We contacted each person through telephone calls and asked them to participate in the focus group. Many people were too busy to come and participate in the focus group. For Friends of Merton, we contacted twenty people but only two people were able to make it to the discussion. For the sports clubs, we contacted fifteen people but only three people were able to participate in the focus group. For those unable to attend, we sent out a questionnaire with the focus group questions through electronic mail or conducted a short ten-minute phone interview with those who did not have an electronic mail address. This way we were still able to gather information from the public. Appendix E contains the e-mail questionnaire guide and Appendix F contains the phone interview guide.

3.1.1 *Department Managers of Leisure Services*

On January 13, 2003 the first focus group was conducted with five department managers of Leisure Services and our liaison, Mr. Chris Mountford. The five departments represented at the focus group were parks, landscape, nature conservations, trees, and cemeteries. This method was chosen for data collection from the staff because they had already scheduled a manager meeting where managers from the different departments would be gathered. Since the managers are very busy during the week, we took advantage of this opportunity to conduct a focus group with them. The focus group discussion was taped with a portable tape recorder to ensure that we obtained all the data given to us by the participants. We had each participant sign a statement of confidentiality where we promised to use the tape for our research only (see Appendix G).

The purpose of this focus group was to understand how the new website could help the specific departments. We asked questions to familiarise ourselves with Leisure Services' staff and obtain knowledge of the importance of each department.

We discussed their impression of the current website, what information they think the public wants to know, and the different types of services that could be provided on the new website. Through the discussion we were able to identify the specific problems with the website and what we could do to solve these problems.

This focus group helped us acquire a general idea of Leisure Services' viewpoint on the purpose and function of the website. From this focus group, we decided to conduct one-on-one interviews with the different department managers in the following weeks to discuss the details of each web page. Interviews were also arranged to obtain information from two department managers that were not present at the focus group. The interview methodology is described in section 3.2.2.

3.1.2   *Friends of Merton*

On January 23, 2003 we called together people from a list called "Friends of Merton." The people on this list are members of the public who are either part of a committee that is involved with parks, or are just genuinely interested in the well-being of the parks. This focus group was conducted in the evening since people are at work during the daytime. Also, this was the time frame when most focus groups are conducted (Greenbaum, 1998).

The purpose of this focus group was to determine the opinion of the general public which was essential in the construction of a website that will serve them. We asked questions about their level of comfort with the internet, what information about parks they use the most and would like to see on the website, and if they would use such a website to obtain information. The specific questions are shown in Appendix D. We also logged all complaints that they had about the current site so that we could avoid (or refine) the features that they did not like. This helped us in designing a

template that was not only easy to maintain by our sponsor but also easy to use by the public.

3.1.3 Sports Clubs

The sports forum consists of people that head different sports clubs organised by Leisure Services. These sports clubs range from little league teams to rugby clubs. We were interested in the opinions of these players because they use the sporting pitches that are located in many Merton parks and are thus potential users of the new website.

On January 29, 2003 we conducted a focus group with three members of the sports forum. They represented three different sports clubs in the Merton area, including the Hercules Wimbledon Athletic Club, Merton Rugby Club, and the Battersea Ironsides, a multi-sport club that uses some of the Merton Parks. From this group we asked questions to gain insight on what information would most likely be used by sports clubs, a large representative of the Merton park users. The focus group questions are provided in Appendix D.

3.1.4 Lavender One O'clock Club

A one o'clock club is a meeting place for children (pre-schoolers) and their parents/guardians where the children are encouraged to play with their parents/guardians and with other children. The only difference between a one o'clock club and a drop-in (day care) centre is that in a one o'clock club the parents stay and assist the children in play activities. There is a membership fee of £15.00 per family for a six-week term. Without membership, a fee of £0.50 per adult and £0.25 per child is required for each visit. They are referred to as "one o'clock clubs" because the activities begin at 1pm (Craigwell, 2003).

On January 22, 2003 we visited the Lavender One O'clock Club to conduct a focus group with parents who use the Merton parks with their children. We set up the group by calling up the "play leader" and letting her know that we were interested in organising a small meeting with the parents that are part of that club. Since parents with small children are a large and unique part of the population that uses the parks, we thought it would be useful to listen to what kind of information they might look for in the parks and on a parks' website. For the focus group questions, refer to Appendix D.

It was a coincidence that on that day the majority of the children had come with their mothers and one child came with his grandmother. It was very hard to get several guardians to sit down together because the children were extremely busy with their activities and were enjoying themselves. Therefore we had to stagger between speaking to a group of three guardians at one time and a group of two another time.

3.1.5   *Feedback from Staff of Leisure Services*

We demonstrated the template after each iteration to get feedback from the staff of Leisure Services. Two demonstrations were presented on February 14, 2003 to get feedback on the first iteration and another demonstration was presented on February 21, 2003 to get feedback on the second iteration from the staff of Leisure Services. A total of sixteen staff members came to watch the demonstration of the first iteration and a total of twelve staff members came to watch the demonstration of the second iteration. These staff members ranged from department managers to administrative assistants.

In the demonstration of the first iteration, we showed the different features of the template such as searching for parks and facilities, updating, announcements and events. For the demonstration of the second iteration, we showed the newest features

of the template: contact information, searching for organisations, and a site map. We asked the staff about the ease of navigation and the layout of the website. We wanted to know what they liked about the website and what they thought needed to be changed. In each demonstration, one member of the team asked the questions and moderated the discussion while the other three members took notes. The feedback questions are in Appendices H and I.

3.2 Interviews

An interview is a structured and organised set of questions that are asked by an interviewer to one person who might be able to provide useful information related to a certain topic. Interviews are easier to organise than focus groups because one does not have to worry about getting a group of people together at the same time. It is also easier to interview people who might find it hard to speak out among other more dominant speakers. The information obtained from an interview would be the opinion of the person without any outside influences on his or her responses. Conducting interviews with a variety of people allows for a broad range of information from a variety of people with potentially different opinions (Berg, 2001).

During the term of our project we conducted several interviews, the first of which was on January 14, 2003 at Leisure Services. That interview was with the web manager of the Merton website, and helped us understand the scope, guidelines and limitations of our project, and the resources available to us. Through interviews with the managers of the separate departments within Leisure Services we obtained more information about the current website and their expectations of a new website. The interview details are provided in Table 2. All interviews were conducted at Leisure Services in Merton.

Table 2: Interview Details

Department	Interviewee	Date	Time
Web Information Managers	Spencer Gasson and Len Buckley	14/01/2003	11:00-11:45 am
Arboriculture	David Lofthouse	23/01/2003	4:10-4:30 pm
Sports & Leisure	Christine Parsloe	28/01/2003	10:07-10:25 am
Nature Conservation	Ruth Hutton	29/01/2003	10:09-10:24 am
General Information	Sue Brooks	29/01/2003	10:37-10:48 am
Parks	John Tweddle	31/01/2003	10:20-10:35 am
Landscape & Play	Amanda Doherty	31/01/2003	12:00-1:15 pm
Arts	Iqbal Husain	31/01/2003	4:45-5:08 pm

3.2.1 *Web Managers of Leisure Services*

It was critical to our project that we determined the needs and resources of Leisure Services for their new website. In particular, we needed to learn about their web-content policies, available technologies, and the desired scope for the new site. We obtained this information through an interview with the Merton Council web manager, Spencer Gasson and his assistant Len Buckley.

We used several focused questions to obtain discrete answers to our questions. First, we asked questions regarding the methods by which Leisure Services creates, maintains, and updates their website. Second, we inquired as to the accessibility, regulations and other content guidelines to which the new website must adhere. Third, we inquired as to the technical resources available to us. The interview guide with the web manager can be found in Appendix J.

3.2.2 *Department Managers of Leisure Services*

As previously mentioned in section 3.1.1, we conducted a focus group with the department managers of Leisure Services. After conducting the focus group, we decided to interview each department manager. We scheduled appointments with eight department managers: parks, landscape, nature conservation, trees, arts, and sports. The schedule of each interview can be viewed in Table 2. Two members of the group conducted each interview. One member would be the interviewer who moderated the interview by asking the questions whereas the other member took notes.

We thought that interviewing each manager was crucial to our project for several reasons. By interviewing these managers individually we were able to discuss in depth the services they wanted on their specific web pages. We asked questions such as how skilled each manager was with technology and where we could go to find the information we needed for the content of the website. This information was crucial for updating purposes. We needed to know how much training was needed for the managers so that they could easily update the website in the future. The interview questions are provided in Appendix K.

3.3 Analysis of Data

After conducting each interview, focus group, or questionnaire, we transcribed the notes taken during each session. Each transcribed document was then reviewed to separate the data based on the relevance of the findings to our project. We organised this data into different categories pertaining to the whole website (general) or certain sections of the site (specific). Finally we identified all the data that fit into each of these categories, making our data recognition complete.

We broke down the analysis of our data into three steps: organisation, prioritisation, and application. From this organised data we determined the main features that needed to be implemented on the website. We prioritised these features by ranking them in order of their ease of implementation and their importance to the public and individual departments of Leisure Services. First, the implementation of the features was ranked in three levels: easy, medium, and hard by discussing amongst ourselves the difficulty or ease of coding each feature. We determined the importance of the features by having department managers rank them from one to eleven without giving any two features the same rank. A feature ranked one would be most important whereas a feature ranked eleven would be least important. We also referred to our transcribed data to see how many times each feature was mentioned by different people. Then we used a combination of ranking and the number of times it was mentioned to determine the overall importance of a feature. From identifying the features' importance and ease of implementation, we determined which features to implement in the first iteration of the template and which features to implement in later iterations.

3.4   Website Development

As previously mentioned in section 2.3, we chose to follow the Unified Process for the creation of the website template. We decided to design the template in a series of three iterations. An outline of our design process follows.

First we gathered data from Leisure Services and the public through focus groups and interviews, which were described in the previous sections of this chapter. Once the data was gathered, we analysed it in order to determine the content of the website. Having designed a new iteration of the template for the website, we showed our progress to our liaison to get feedback on the design and content of the website.

We also gave a presentation of the first and second iterations to the members of Leisure Services' staff. Following each presentation we held a focus group with the staff, as described in section 3.1.5.

One of the key parts of our development process was that the template went through several iterations and grew incrementally over time. We designed the template in several iterations because doing so allowed us to continuously receive feedback. This greatly helped us to design a template that meets the needs of Leisure Services as the department managers were able to give direct feedback to us regarding whether the website was going to be helpful for them.

We decided to use a three-tiered architecture system as it would allow the website to be easy to update for all staff members of Leisure Services without requiring familiarity with HTML and databases. The first tier of our system was made up of our MySQL database, which stored all the information that the site needed regarding the location and content of the site's pages as well as all of the site's data such as parks and contact information. The second tier or execution layer of our system was made up of PHP scripts which handled all the accessing of database information and determined how site navigation worked. Finally, the third tier of the website was the presentation layer. This is the layer which determines what content is viewable and how it is viewed. This layer was implemented via PHP scripts which produced all the site's HTML pages.

4 **Results and Analysis**

From the data collected through focus groups, interviews, and questionnaires, useful information was gathered pertaining to the design of the website and the information people wanted presented on the website. The data collected was organised and analysed to help us create a template that best fits the needs of Leisure Services and the public. In this chapter, we discuss the data summary of our findings, the analysis of our data, and our results of the website template. The transcribed notes from each data collection method can be found in Appendices L-AA.

4.1 Data Summary

Through our methodology, we collected data about the requirements of the website template from Leisure Services and the public. These findings are categorised into organisation of the website, technical guidelines of the template, and the specific content of the website, such as park information, contact information, and various online services. The findings from our research are described in the following subsections.

4.1.1 *Website Organisation*

We identified at the beginning of the project that the design of the previous Leisure Services website was insufficient and needed to be modified. The results of the data collected from individual department managers and the general public indicated that poor navigation and confusing page links were the roots of this problem. An example brought up in the focus group with the department managers was that even they did not know what information was on the previous website because it was so difficult for them to find Leisure Services' section under the Merton website. Participants in the Sports focus group suggested that the title "Leisure

Services" should be changed to something like "Sports and Recreations" as one might not think about sports as being classified under leisure. We navigated through the Merton website to get to Leisure Services section and discovered that in order to reach Leisure Services' site we needed to go from "Leisure" to "Green Merton" to "Leisure Facilities and Technical Group". These titles were misleading and a public user would probably not look under these sections to access information about Leisure Services.

The site structure was also confusing because of the way the website was organised. There are sub-departments within Leisure Services that were not included on the Leisure Services web page. All the participants in the department managers' focus group informed us that this led to uncertainty as they tried to get the information that they wanted off of the website.

4.1.2   Technical Issues

We interviewed the web manager, Mr. Spencer Gasson and his assistant Mr. Len Buckley. We obtained a good understanding of our sponsor's web policies, accessibility regulations, technical limitations, and overall expectations for the structure of the new site. Mr. Gasson gave us a booklet detailing all the accessibility regulations which the new site must follow. With this information, for example, we determined that scripts written in a language such as JavaScript were appropriate content only if the website operates just as well without them. This allowed us to ensure that our design for the new website would be in strict accordance with their standards and expectations.

We discussed what technologies are used by Leisure Services and were therefore available for us to use. We learned that the Leisure Services staff uses Macromedia's Dreamweaver™ software to add content to the website. We identified governmental guidelines that are related to the necessary content on the website. We

learned that the new site would be a part of the greater, already established, Merton website. This meant that we would not be programming the final website ourselves, but instead we would focus our efforts on designing the template for the new site, which would later be implemented by Merton's web developers.

4.1.3 Website Content

We discovered from our background research and data collection process that the website would require a wide range of information in order to meet the needs of Leisure Services and the public. Data gathered from all the focus groups, interviews, phone interviews and email questionnaires helped us determine the website content relating to parks and Leisure Services that needed to be posted online. The site content must cover the areas of parks information, Leisure Services contact information, links to related sites, and online services.

4.1.3.1 Parks Information

From the three focus groups with the general public, we found that the most useful information is general information about the parks in Merton such as hours of operation, facilities that are available at the parks, and directions to the parks. This information is already provided in a leaflet at Leisure Services. When people call Leisure Services asking for information, they often mail them a leaflet. If this information were online, it would be more accessible to the public and require less of the staff members' time being consumed by phone calls from the public.

Through individual interviews, the managers of Leisure Services also mentioned what information they would like to see on their individual sections of the website. For example, many of the parks have sports facilities, and many clubs in Merton are organised so members of the community can use the facilities while

playing with others interested in the same sport. Information provided on local clubs, such as rugby and football (soccer), and their meeting locations would be useful for the sports department and for those interested in joining. Locations and available facilities of local playgrounds would also be useful information to have on the site, which would be useful for the landscape and play department. In summary, the department managers thought that extensive development of the site was needed to help Leisure Services perform their role.

4.1.3.2 Leisure Services Contact Information

All the managers of Leisure Services stressed the need for correct and up to date contact information on the new website so that if the public needs to talk to a specific department they can reach the right people. A lot of time is wasted because of people calling a department not responsible for the information that they are searching for. The contact information would be used if the people could not already find what they were looking for on the site. This information should be updateable so that Leisure Services can change it themselves when changes occur in contact information.

4.1.3.3 Links to Related Websites

A feature useful for the public and staff of Leisure Services, as mentioned in all the focus groups, is links to other organisations' websites that are related to parks and open spaces. Many parks in Merton have their own self-supported sites. Providing links to these sites would be useful to parks users who would like to find out more information, or to become more involved with, the park of their choice. Also mentioned by four of the managers were links to other friends groups that the park users of Merton may be interested in learning about. Other department specific links could be useful, such as the Arboriculture Organisation (mentioned by department

manager of Arboriculture) or English Nature (mentioned by department manager of Nature Conservation). An explanation of the links, such as what the organisation is and what it has to offer would be required so the users can find what they are looking for easily. Links to other Leisure Centres could provide a good way of publicising the Merton site. If links to other organisations are provided on the Leisure Services site, then maybe the other organisations will provide links to Leisure Services.

4.1.3.4   Online Services

In the focus groups and interviews, all the participants suggested different types of information services that should be available on the website. Five people (2 department managers, 2 members of Sports Clubs, 1 member of Friends of Merton) suggested that there should be an announcements/update section on the main page of the website where up-to-date information about different parks is posted. Information could include changes in hours of operation, posting of events for the upcoming week, and cancellation of events or closing of parks due to weather. This is an efficient way of getting announcements to the public and people will be well informed on current events relating to the parks. This will also reduce the number of phone calls to Leisure Services asking about these certain topics. Also as suggested by our liaison, the announcements section can publicise news dealing with the organisation such as awards they have received in their departments. This would recognise the organisation for their works in the community.

It was also suggested by one of the members of the Landscape Department of Leisure Services to put an interactive map on the website. This service was also suggested by several mothers in the Lavender One O'clock Club focus group. There would be a map of Merton with the main roads and attractions. Then website users would be able to zoom in on certain sections of the borough so they could view in

detail the specific locations of different parks in that area. This would allow people to search for parks closest to their homes or search for parks with specific facilities by displayed icons of the facilities on the map.

Lastly, two representatives of the sports clubs and a member from Friends of Merton suggested that an online booking service would be helpful for their clubs. This service would allow different clubs and organisations to book facilities online for their special events. They stated that if this service was available to them online, they would use it to their advantage. It would be more convenient for them to reserve a pitch from home through the internet. This would allow for people to book facilities at any given time, even when Leisure Services is not open.

One participant representing Wimbledon Park stated that booking for facilities is a big problem because sometimes an attendant is not present at the courts. Thus an online booking system would be a "great improvement." He also said that having this service available online would encourage him to use the parks more because he likes to have everything set up through the web. Although this service will not be available right away, information about booking facilities will be available on the website. Information such as which facilities are available to book, the cost of booking, and who to contact for this service will be available on the website.

4.1.4 *Health and Safety Awareness*

From the interviews with department managers, we discovered that people regularly complain to Leisure Services about the litter and dog mess that are scattered throughout the parks. Parents at the Lavender One O'clock Club also showed concern about safety issues at the parks, such as if certain parks are suitable for young children. Although this is a problem that needs to be addressed by Leisure Services, the website could be used as a tool to improve the conditions of the parks. Christine

Parsloe, the manager for the sports and leisure department, suggested that there should be information on the website that educates people on health and safety issues related to parks. There should be a page that lists the advantages of keeping a park clean by picking up the litter or cleaning up after the dogs. Having an unclean park can be unsanitary and could affect the health of others, especially children. Through this information, people will be educated on the importance of keeping parks clean and hopefully take the responsibility as a community to take care of the parks.

4.1.5 Advertisement

One major problem with current website of Leisure Services is that people do not have knowledge of its existence or do not know how to access it. From the interviews, the department managers of Leisure Services expressed their knowledge of a current website somewhere on the Merton community website but did not know the web address to access it. Very few members of the staff have seen the website and those that have seen it do not remember the content on the website. All the members of the public who participated in the focus groups did not know about the Leisure Services website either. A member of the rugby club stated "I would not think of looking on the internet unless the site was heavily publicised or advertised." A mother from the One O'clock Club agreed, stating that the website needs to be advertised. Helpful suggestions on where to advertise the website were given to us by the public.

The parents from the Lavender One O'clock Club recommended that Leisure Services should advertise the website at the public library. Many parents use the library for internet access so this would be a great place to advertise the parks website. Through a phone interview, a member of Friends of Merton stated that she uses the library for internet access. In another phone interview, a different member stated that she uses the pamphlets available at the library for information. Mothers from the One

O'clock Club informed us that packets containing leaflets, coupons, and information on parenting are provided at the library for parents with newborns. There is also a pamphlet called Choices for Children which is available for free at the library that has information on facilities and activities that are available to children in the community. Leisure Services could include a leaflet in these packets with the web address of the website and information on the different facilities in Merton parks that would interest parents and their children. A representative of a sports club in Merton also suggested that every park should have a bulletin board where information about the specific park is posted. This is also another place to advertise the website so that the public will know where to go to access more information about parks.

4.2 Analysis of Data

Based on the data we collected we determined eleven features that Leisure Services and the public wanted on the website. As discussed in section 3.3, we then broke down the analysis of our data into three steps: organisation, prioritisation, and application. After completing these steps we determined the main features that needed to be implemented on the website which is displayed in Table 3.

Table 3: Data Analysis of Key Features for Website

Rank	Features	Ease of Implementation	Total Score	No. of times mentioned	Template Iteration
1	Navigation	3	10	7	1
2	Updated Contact Information	1	30	5	1
3	Information About Parks	2	35	7	1
4	Updates and Announcements	2	45	7	1
5	Calendar Events	2	48	7	1
6	Frequently Asked Questions	3	50	7	1
7	Links to Organisations, Friends, Other Parks	3	53	7	1
8	Sitemap	2	53	2	2
9	Map of Merton	3	57	3	2
10	Booking Facilities (Not Necessarily Online)	2	69	3	2
11	Park Maintenance	3	78	6	2

The difficulty of implementing each feature on the website was determined by the members of the team with several factors in mind: the amount of time needed to code the feature into the site, the amount of time needed to enter all the data required to demonstrate the functionality of the new feature, and the difficulty of testing and documenting the new feature and its functionality.

The importance of each feature was determined by having eight department managers of Leisure Services rank the eleven features in order of importance, one being most important and eleven being least important, without having any two features ranked the same number. Once we received input from the department managers, the rankings of each feature were added up. This is the total score shown in Table 3. Since the most important feature was ranked number one, the feature with the lowest total number was considered to be the most important feature to implement on the website template.

Another method that helped determine which features would be implemented first was to review the transcribed notes from focus groups, interviews, and questionnaires and count how many times each feature was mentioned by different individuals. The result of this method is displayed in Table 3, in the "Number of times mentioned" column.

By following this approach we discovered that the features ranked as important were navigation, contact information, information about parks, announcements, calendar events, frequently asked questions and links. Contact information was ranked as easy to implement and so was included in the first iteration. The remaining features (ranked 1-7) were moderate or difficult to implement, but were considered important enough to include in the first iteration. Those features ranked 8-11 were left to the second iteration.

Most people wanted a website that was simple and had easy navigation. We constructed the template of the website with unambiguous titles and links so that a user can easily navigate their way through the website to find the information. Content included on the website was information such as the facilities available at each park and contact information for specific departments. A search feature was implemented where a user can quickly locate the specific park or open space information they need by using certain criterion, such as location, name, or region. Also, in order to keep the community informed, we included an announcements page where any news about the parks or Leisure Services can be posted. As stated earlier, these features were implemented in the first iteration of our template. Other features that were implemented in later iterations were a sitemap, contact information, more searching options, and more updating options.

4.3   Website Template Feedback

As described in section 3.1.5, we demonstrated the template to the staff of Leisure Services after each iteration. After each demonstration, we received feedback from our audience about the design and content of the website template. From the feedback, we were able to make improvements on the working template.

In the presentation of our first template iteration, we received comments on the navigation and layout of the template. All the staff members in the focus group agreed that the navigation throughout the website seemed simple and easy to follow. One staff member stated that she would be able to navigate through the website by herself because the website seemed organised very logically. We also discovered that there needed to be some changes in the layout. A staff member expressed his dislike of the colour scheme of the template and the boxes around the text. He felt that these items were too distracting. This opinion was agreed upon by many of the male staff

members but the female staff members seemed to disagree with them. One staff member contributed suggestions on alternative colour schemes for the template such as a white background with coloured text. Another staff member pointed out that the problem with this layout is that a person who is colour blind may have difficulty accessing the website, thus not complying with the Disability Discrimination Act of 1995. Two staff members suggested the use of more pictures and graphics to make the website look lively instead of using the bright colours and the boxes

We also received comments on the content of the website. In general, many of the staff members asked if certain features were going to be implemented on the website in the future. Many of the features mentioned, such as sections with contact information, feedback system, and organisation database, were going to be implemented in the second iteration. A member of the Landscape and Play Department suggested adding a new search feature where the user would be able to search for services alphabetically. The title "FAQ" needed to be changed to "Frequently Asked Questions" because we discovered that only two out of sixteen participants knew the acronym FAQ. Several of the staff members pointed out that the listing of all the events on the homepage was distracting and that there should be a separate event section where the past, present, and future events can be displayed. This would also allow for users to be informed on what events have already taken place and what events will be held in the future. A staff member suggested that there should be a brief description of each park in the parks section, including information on the type of activities that are suitable for each park.

We analysed the feedback by identifying the changes that needed to be made on the template in the second iteration. First, we created an events page which displayed all the past, present, and future events. Now the home page only displays a

few of the upcoming events. Pictures of parks were added in the parks section along with a brief description in several parks. The FAQ section was renamed to "Question and Answer" so that people understand the content of this section.

In our presentation for our second iteration of the template we received feedback mainly about the section with contact information. The contact information needed to be organised in a way so that the user will understand the hierarchy of the organisation. Also there needs to be a title description next to each name so that the public will know whom to contact for the needed information. Otherwise, people will just contact the first person on the list, which may not be the correct person to contact. Also, the contacts section displayed all the contact information for every staff member in Leisure Services. This was a problem because some of these departments, such as education, do not have any content in the website template as they are not directly related to parks. The website template was intended to demonstrate the contacts section so the information content on this template could be edited by Leisure Services.

4.4   Website Template

Our primary deliverable for our project was our completed website template. Our design for the template was based on our analysis, given in section 4.2, of the requirements of the template from Leisure Services and the public. First, we give a brief outline of the template site's page and link organisational structure. Second, we give an overview of the informational content and services provided by the template, including the different types of information offered and all the ways in which users can access that data. Third, we explain the page layout and navigation of the template. Fourth, we briefly explain how the template's content updating system works and the importance of the feature to the new site. Finally, we give a brief discussion of the

technological operation of the template. More information about the template is given in Appendix BB.

4.4.1   *Template Structure*

The website's structure was designed to be simple enough for users to understand but extensive enough to allow the website to provide all the information and services necessary. The website's pages are arranged within a three-level hierarchy. The first level is the "sections" level. There can be as many sections to the website as desired, though the names of the sections must be unique amongst themselves. Within each section is a main page which can display any arrangement of text, images, and hyperlinks as desired. Additionally, each section can contain any number of sub-sections called "topics", which make up the second level of the site's structural hierarchy.

Each topic has a main page similar to that of a section. Each topic can also have sub-topics called "items", which make up the third level of the hierarchy. An item consists solely of a single page, which can contain any assortment of images, text, and hyperlinks.

As an example of the section-topic-item hierarchy the template includes a "Parks" section. Within that section we included the topics "Q&A", "Contacts", "Organisations", and "List of Parks". Within the topic "List of Parks" there are sixty-one items, one for each park with data on the website. In the future, items could also be added to any of the other topics within "Parks". For instance, within the "Q&A" topic of the "Parks" section, items could be made for pages that give a subset of all questions and answers based on a specific subject of interest.

4.4.2 Content and Services

The website template was designed to not only provide static information to the public, but also to provide information services which help users access and utilize that data.

The new site provides access to several types of data on a number of different topics. First, the site contains data on parks, including locations, names, and facilities available at each park. Second, the site offers contact information and descriptions of local organisations in the Merton area which are related to Leisure Services and the content of the website. These organisations, are in turn, linked from their respective events. The website stores information regarding news and events related to Leisure Services. A brief of current news and upcoming events is given on the Home page, and a full description of each announcement as well as links to related organisation(s) is given on the respective "News" section and "Events" section main pages. Additionally, information on past events is stored in the "Events" section. Finally, contact information including e-mail address, position, and phone number for staff members of Leisure Services is available on the website, organised by the department of Leisure Services in which each staff member works. A full list of information stored on the site is given in Appendix BB.

To assist users in finding and effectively utilising the data they need, the site provides a number of searching services. Parks, organisations, contact information, and facilities can be searched for by a number of criteria. A full listing of the searching services provided is given in Appendix BB. We have included these services in our template in order to demonstrate various ways in which the new website can use interactive components to help users effectively locate and utilise the information available.

One example of such functionality is searching for organisations. The results from such a query includes not only the e-mail address and website URL, if available, for each organisation, but also provides hyperlinks which can be used to instantly navigate to that organisation's website or send an e-mail the appropriate account.

4.4.3   Page Layout and Navigation

The primary means of navigation within the template site are the link menus located at the left of each page. On every page, this area includes a "Sections" menu which lists each of the site's sections, including the "Home" section (which serves as the home page for the website). There are also three other menus which can be offered, as needed, by pages. First, if a page is within a section that has topics in it, a "Topics" menu listing the current section's topics is given in the menu area. Similarly, if the page is a part of a topic which has items within it, it can display an "Items" menu listing all the current topic's items. Finally, if a section, topic, or item has any external links (those which lead users to an external site) associated with it, those links are displayed in the "External Links" menu in the menu are on the left (see Appendix CC for image).

There are two main devices that at all times indicate to users where they are in the site. The first and most direct of these is the "You Are Here" indicator on the top-right of every page. This indicator literally states in text "You are here:," followed by a bracketed representation of the name of the section, and when applicable, the topic and item, which users are currently viewing (see Appendix CC for image). The second indicator of location is that within the "Sections" menu, the link which corresponds with the current section is always displayed in a different font color with an added pointing character, "<", in order to indicate that the user is currently in that

section. Similarly, when users are viewing a topic within a section, the corresponding topic from the "Topics" bar is altered in the precisely same way.

Navigation through the new site was intended to be simple and straightforward. When users first arrive at the website, if they have followed a link which specifies a section, topic, or item, they are sent to the corresponding page; otherwise they start on the main page for the Home section, which acts as the site's home page. From the home page they can navigate to any of the site's sections using the "Sections" menu, or to any site linked to the Leisure Services site in the "External Links" menu.

If users go to one of the site's sections, they have several choices for further navigation. First, they can then follow a link presented in the text on the section page. Second, they may choose any of that section's topics by using the "Topics" bar on the left-hand side to get additional information or services provided by that topic. Lastly, the user can go to another section using the "Sections" menu, also on the left-hand side.

If users choose to enter into a topic within a section, they can either use the service or services provided there on the main page of the topic, chose an "Item" within that topic to get additional information, choose another section using the "Sections" menu, or follow an external link given either on the topic's main page itself or in the "External Links" menu, if one is provided.

Should a user navigate to an item within a topic, they then have the choice of following any link given on the item's main page, choosing another item, topic, or section from the appropriate menus, or using an external link provided by the "External Links" menu, if one is present.

4.4.4 *Updating*

The new site was intended to be regularly updated by staff members of Leisure Services. Most of Leisure Services' staff are not familiar with PHP or HTML coding, but do regularly use software, such as Microsoft *Outlook*, that uses a graphical user interface for receiving information. Therefore, in order to make the website template easy to update, we created a graphical user interface (GUI) to handle the addition of structural and informational content to the template. Anyone with access to the GUI (which could be provided by any graphical web browser) can add, remove, or edit the website's content. The GUI's interface itself is comparable to that of popular 'webmail' services such as Microsoft's *Hotmail* service or Microsoft *Outlook*. By providing a familiar interface to the staff members we hoped to make the updating of the new website simple and straightforward so that the least amount of training would be required.

Any given updating operation requires only a few simple steps. First, updaters select what functions they wish to perform. Then, based on those selections, updaters are given a series of forms allowing them to add new content, edit existing content, or delete existing content. Changes to the site take immediate effect and display an immediate message alerting the updater of the change. Additionally, a message is logged in the database specifying how the site was changed.

The following example illustrates how the updating system is used. A staff member at Leisure Services goes to the Updating section of the website, wishing to edit the title of a page from "FAQ" to "Q&A". She first selects "Edit Pages" from the initial menu of updating options, then submits her query by pressing the "Submit Query" button. After submitting her query, the website loads a page which displays each of the site's pages in a box, with editable text fields and drop-down menus which

represent all the editable data for that page. She knows that the page is in the "Searching" section, so she scrolls down in the site until she finds the pages for the Searching section. Then she locates the page with the text "Title:" and a text field with "FAQ" written in it. She edits the text in that field to say "Q&A" and then presses the "UPDATE PAGE" button. The page's title is now changed.

The major benefit of having this updating system is that new content can be added into the site efficiently by way of a simple, straightforward graphical interface which is familiar enough to the staff of *Leisure Services* to encourage frequent and comprehensive updating and extending of the website's content. The created pages are initially blank, but the files which specify the pages' content can easily be located and edited, allowing any kind of HTML content desired (see Appendix BB).

4.4.5   Technology

When implementing our design templates, we wished to avoid the use of expensive, licensed software to which Leisure Services did not already have access. We also wished to use simple and standardised software in order to produce our templates. When deciding what features to implement into our templates, we tried to be sure that any given feature in our templates could be easily implemented by Leisure Services in their own choice of language after we were gone. That way, Leisure Services would not have to support any new languages or software in order to maintain the final site. They would merely need to follow our template as an example of what the end product would look like (and, to some extent, how it could be implemented).

We chose to use the text editor *TextPad* for the editing of files, and the server-side scripting language, PHP, discussed in section 2.5, as our language in which we

programmed the templates. For data storage purposes, we chose the database system MySQL, also mentioned in section 2.4 (MySQL, 2003).

Amongst PHP's features, a few were particularly beneficial to our project. Firstly, the fact that all of PHP's scripting is server-side means that users of the website would not be burdened by needing additional software or processing power to utilise the site. This helped us meet the need for the website to be equally accessible to low and high-end computers. Another highly beneficial feature of PHP was that by using PHP scripts we could easily produce HTML pages which complied with the W3C's HTML 4.01 standard, thereby ensuring that our website was accessible by most web browsers.

PHP also provided us with code-libraries that gave us easy, simple, and well-documented access to our database choice of MySQL. Using MySQL, we could enter large amounts of data regarding parks, organisations, and details specific to the website's structure into a database. From this database, our PHP-run HTML pages would, in a sense, "ask" the database for all the data which should be shown and where it would be shown. The HTML page did not have to contain the data; it needed only to contain a PHP script which dynamically obtained that data from the database. This way, data could easily be added to the website without any modifications to HTML being needed, thus reducing the overhead maintenance costs of the website.

Additionally, PHP's built-in libraries gave us easy access to the Common Gateway Interface (CGI), which was discussed in section 2.5. PHP's CGI libraries allowed us to easily implement our updating GUI as well as ensure that the GUI would be compatible with any modern web browser, as CGI support is nearly universal among web browsers.

5 <u>Conclusions and Recommendations</u>

5.1 Conclusions

Leisure Services was unsatisfied with their previous website because it provided inadequate information to the public. They assigned us the task of designing a template that could be used to construct a new website. Our goal for this project was to create a template for a website that could help facilitate communication between Leisure Services and the public. In order to design a site which would be a useful communication aid, we conducted interviews and focus groups to obtain an understanding of the content and services they wanted to see on the website.

By following this approach we discovered that, from our itemised list of the features, those which ranked highest in importance and practicality were good navigation, information about parks, announcements, calendar events, links and question and answer documents. We constructed a template with unambiguous titles and links so that a user can easily navigate his/her way through the website to find the information. The informational content which we designed the site for includes data such as the facilities available at each park and contact information for specific departments. Additionally, a search feature was implemented whereby users can quickly locate the specific park or open space information they need by using certain criterion, such as location, name, or region. Also, to keep the community informed, we included a page for announcements and events where any news about the parks or Leisure Services or events in the Merton area can be posted.

The website was delivered via a CD-ROM included with this report to Leisure Services on the last day of our project, the 28th of February, 2003. Along with all the files which make up the website's pages, database information, and scripting logic, all

the files needed to install a server which can host the website on a Windows NT/2000 machine were included on the CD-ROM. Finally, a copy of this report was included on the CD in order to provide documentation for the entire development process for the website.

Through the creation of this website template, we hope to have made a positive impact on the public and Leisure Services. Specifically, we expect the new site to have three significant effects. First, we expect the new site to help increase the public's awareness of the activities of Leisure Services. Second, we hope that the site will help the general public become aware of the activities and events within the Merton community. Third, we have designed the website to help community organisations operate and network together.

The website will encourage the public to provide more feedback so that Leisure Services can further improve their operation. We also expect that the public will be able to make better use of the facilities and services in the parks now that accurate and comprehensive information is readily available to them.

The website can be used by Leisure Services as a medium to launch new initiatives. For example, people can be educated about the benefits of properly maintaining the parks and providing healthy and safe surroundings for everyone, two programmes which were discussed in section 4.1.4. The site will also start the Leisure Services staff on the crucial path to familiarity with the internet and using it to their advantage. The staff will be able to provide information to the public easily and effectively through the use of the new website, so that they can better focus on their work and use their time more effectively. Such goals have been set by the Merton council and we hope that the new website will help Leisure Services meet them.

5.2 Recommendations

We have several recommendations for Leisure Services on methods to bridge the organisation with the community. These recommendations pertain to advertisement for the website, ways to rank the website higher on search engine results, and additional online services for future development. These recommendations are described in the following subsections.

5.2.1 Advertisement

After completing its construction, the website needs to be advertised to the public. The website will be useless if people do not know about it. As described in section 4.1.3.6, the website can be advertised in public places such as the library or in the parks. Many parents use the library to obtain information about different activities and events available in the community. It was suggested by the parents from the Lavender One O'clock Club to advertise the website in the free packets or leaflets that are available in the library. Also, the library would be a great place to advertise because many people go to the library for free internet access. Advertisement at different parks in Merton will also be an effective method to inform the public about the new website. The park users will be interested in the information about the parks and facilities and will use the website in the future.

5.2.2 Search Engines

Besides advertisement, another method of making the public aware of a website is to have it appear as one of the results of a search on a search-engine. A search-engine is part of a website that is designed to help people find the information stored on other websites (Chowdhury, 2001). When a user enters one or more

keywords and requests a search, the search-engine outputs all the sites in its database that contain that keyword.

Most search-engines show the top ten most relevant websites immediately and have links to subsequent pages that show more search results. Therefore, it is very helpful to a website if it is listed as one of the top ten because that is what the users see first.

When a user requests a search, the search-engine does not go through all information across the entire web at the given instance. Instead, it goes through a fixed database that contains information on selected web pages (Chowdhury, 2001). Chowdhury (2001) states, "This database is updated at regular intervals according to specific criteria employed by the search engine" (p.15). This update is done using probes called "spiders" that are sent out by the search-engine to go through the web and detect new or modified pages. Keeping this in mind we researched methods to increase search engine hits for a website and came up with a few recommendations.

Since search-engines search for the appearance of keywords it is important to come up with words that describe what a website is related to, for example "Merton Parks." It is better if the relevant words are longer than one word and frequently appear adjacent to each other throughout the web page. Having two adjacent words reduces the chances of other websites having the same two keywords and statistically increases the chances of making a website among the higher search results on a search-engine. It is also a good idea to place these keywords in the web page's HTML tag because some engines might rank that as having a higher relevance than just having the keywords appear in the text of a web page (Sullivan, 2002).

Building good links to and from other pages is also very effective technique for getting a website registered on a search-engine. Since search-engines detect new

or modified pages using crawlers that move from page to page using links, it is good practice to have a lot of internal and external links. To increase internal links, creating a site map is a good idea since this can help search engines locate pages within a website (Sullivan, 2002). Hock (2001) explains that placing a new website's links on already established and high-profile websites can be very valuable since "high-profile websites have a good chance of being found more quickly than…obscure sites" (p. 24).

Some website developers like to use frames in the interface of their website. Frames are HTML devices that break a web page into smaller windows that are independent of each other (Hock, 2001). If a website is developed using frames, it is crucial that an alternate non-frames version also be developed because some search-engines do not index frames. This leads to the website not being listed as a result of a search even if relevant information and keywords are present on the site.

Finally, if a website gets any information across using graphics, it is important that there be alternative text communicating the same information. Search-engines cannot recognise the information within graphics and might skip a website even if it were relevant to a search (Hock, 2001).

5.2.3 Additional Online Services

As mentioned in section 4.1.3.4, a service that would be helpful to the community is an online booking system. A total of three participants from the focus groups suggested that an online booking service should be available on the website so that different sporting clubs can book different pitches for practices and games. This online booking service would also allow for different facilities in the parks to be reserved for special events. According to the participants of the focus groups, this

service would be convenient and increase the number of users for the parks and website.

After the website is completed, a tool that Leisure Services may find helpful would be a feedback system. With this, Leisure Services could receive directly from the public what problems they may have with the website or with any parks or open spaces. By leaving comments, the public would be able to express their opinions on a number of issues concerning them. This feedback system can be in a form of a message board or electronic mail. This system will improve the communication between Leisure Services and the community and reduce the number of phone calls to the staff. It will also help keep track of all the comments and complaints so that every remark is addressed.

Although this system has benefits, there are also some limitations. The staff of Leisure Services must be responsible for this feedback system meaning that someone must moderate it. The staff must address these comments as soon as possible. There could also be an overwhelming amount of information that is not important thus taking away valuable time from the staff.

Another way to improve communication between Leisure Services and the community is through an electronic newsletter. The contents on the website can be easily put into a document and sent out to an e-mail list. This newsletter would keep the public informed about the current events pertaining to the parks and Leisure Services. This is also another way to advertise the website to the public.

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Appendix A: Parks and Facilities in Merton

		OC	PA	CP	C	WC	BG	TC	FB	CR	R	NC	T	WF	OG	PP	P	MS
1	Abbey Recreation Ground		√	√					√	√								
2	All Saints Recreation Ground		√															
3	Bennets Hole											√	√	√				
4	Beverley Meads											√	√	√				
5	Commons Extension			√					√		√							
6	Cannizaro Park					√						√	√	√	√			
7	Cannon Hill Common											√	√	√				
8	Cannons Recreation Ground and Mitcham Sports Ground		√	√		√	√		√				√	√	√			
9	Cherry Wood											√						
10	Church Lane Playing Fields																	
11	Colliers Wood Recreation Ground	√	√	√		√		√	√							√	√	
12	Cottenham Park		√					√		√			√				√	
13	Cranmar Green											√	√	√				
14	Cricket Green									√			√					
15	Drax Playing Fields			√				√	√	√								
16	Donnelly Green		√															√
17	Dundonald Recreation Ground		√			√	√	√	√	√							√	
18	Durnsford Recreation Ground		√									√						
19	Edenvale Open Space	√	√															
20	Fair Green																	
21	Figges Marsh																	
22	Fishponds Wood											√	√	√				
23	Garfield Recreation Ground		√															
24	Haydons Road Recreation Ground		√	√		√	√	√	√	√								
25	Holland Gardens			√				√					√		√			
26	John Inness Park			√		√	√	√					√	√	√			
27	John Inness Recreation Ground									√								
28	Joseph Hood Recreation Ground		√√	√		√	√	√	√	√						√	√	
29	Kendor Gardens														√			
30	King Georges Playing Fields	√	√	√		√			√	√						√	√	
31	Lavender Park	√	√√	√				√	√								√	
32	Lewis Road Recreation Ground		√															
33	Long Bolstead Recreation Ground		√															
34	London Road Playing Fields		√									√	√					
35	Lynmouth Gardens																	
36	Merton Green Walks											√						
37	Miles Road Playing Fields		√															
38	Mitcham Common											√	√					
39	Morden Park		√	√		√			√	√		√	√	√		√	√	
40	Morden Recreation Ground		√	√			√	√	√		√		√					
41	Moreton Green		√									√	√					
42	Mostyn Gardens		√															
43	Myrna Close											√		√				
44	Nelson Gardens														√			
45	Nursery Road Playing Fields								√	√	√							
46	Oakleigh Way Recreation Ground		√	√								√						
47	Pollards Hill Recreation Ground		√									√						
48	Prince George's Playing Field																	
49	Pyl Brook Nature Reserve											√						
50	Ravensbury Park		√	√		√						√	√	√		√		
51	Raynes Park Sports Ground			√		√	√		√	√	√						√	
52	Riverside Walk											√						
53	Rock Terrace Recreation Ground	√	√															√
54	Rowan Road Recreation Ground		√			√										√		
55	South Park Gardens					√							√		√			
56	Sherwood Recreation Ground		√														√	
57	Sir Joseph Hood Memorial Playing Fields		√	√		√	√	√	√			√				√	√	
58	Tamworth Recreation Ground		√	√		√		√								√		√
59	Three Kings Piece			√					√									
60	Wandle Meadow Nature Park											√						
61	Wandle Park		√	√								√	√	√				
62	Wimbledon Common			√								√	√					
63	Wimbledon Park		√√	√	√	√√	√	√	√			√	√			√		
		OC	PA	CP	C	WC	BG	TC	FB	CR	R	NC	T	WF	OG	PP	P	MS

Key To Facilites					
One O'Clock Club	OC	Tennis Courts	TC	Notable Trees/Woodland	T
Play Area	PA	Hockey	H	Water Feature	WF
Car Park	CP	Football	FB	Ornamental Gardens	OG
Café	CP	Cricket	CR	Padding Pool	PP
Public Conveniences	WC	Rugby	R	Nature Conservation Interest	NC
Bowling Green	BG	Pavilion	P		

Appendix B: Project Timeline

ID	Task Name	Duration	Start Date	Finish Date
1	**Term of Project**	34 days	Mon 1/13/03	Fri 2/28/03
2	**Research**	27 days	Tue 1/14/03	Fri 2/21/03
3	Interviews	13 days	Tue 1/14/03	Mon 2/3/03
4	Initial Focus Groups	10 days	Tue 1/14/03	Wed 1/29/03
5	Feedback Focus Groups	6 days	Fri 2/14/03	Fri 2/21/03
6	Questionnaires	6 days	Tue 1/22/03	Mon 1/31/03
7	Technical Operation of Site	8 days	Tue 1/14/03	Thu 1/23/03
8	**Analysis**	27 days	Tue 1/14/03	Sun 2/23/03
9	Interviews	16 days	Tue 1/14/03	Thu 2/6/03
10	Initial Focus Groups	15 days	Wed 1/15/03	Thu 2/6/03
11	Feedback Focus Groups	6 days	Fri 2/14/03	Sun 2/23/03
12	Questionnaires	8 days	Tue 1/28/03	Thu 2/6//03
13	**Template**	37 days	Wed 1/22/03	Fri 2/28/03
14	Gather Sample Information for Template	6 days	Wed 1/22/03	Fri 1/31//03
15	Iteration 1	23 days	Wed 1/22/03	Fri 2/14/03
16	Iteration 2	7 days	Fri 2/14/03	Fri 2/21/03
17	Iteration 3	7 days	Fri 2/21/03	Fri 2/28/03
18	**Report**	34 days	Mon 1/13/03	Fri 2/28/03
19	Writing Project Report	34 days	Mon 1/13/03	Fri 2/28/03
20	Prepare Final Presentation	6 days	Wed 2/19/03	Wed 2/26/03
21	Final Presentation	1 day	Wed 2/26/03	Wed 2/26/03

Appendix C: Leisure Services' Department Managers Focus Group Guide

1. What information do you have on the current Merton site related to parks/leisure?

2. Are there any Frequently Asked Questions about different departments? What types of questions do the public ask frequently?

3. Would you find a regular e-newsletter useful?

4. Would an automatic e-newsletter where the site itself sends the newsletter out with the current information loaded on the site be useful?

5. Would a feedback system be useful?

Appendix D: People of Merton Focus Group (Friends of Merton, Lavender One O'clock Club, Sports Clubs) Guide

1. What software do you use to browse the internet?

2. How often do you update your internet browsing software?

3. What would you say is your level of comfort while using the internet?

4. Which parks in Merton do you use the most and why?

5. What information about parks do you use most often?

    a. Would you use the parks more often if you knew more information about them? (such as hours of operation, facilities available at each park)

    b. Are you aware of the different awards Leisure Services has received?

6. What park activities are you most involved in?

7. Do you know about the current Merton Parks website?

8. What information on the parks and activities would you like to see on the site?

9. Would you use such a website to obtain information? Why? What would make you use such a website?

Appendix E: E-mail Questionnaire

1. Please describe your level of familiarity with using the internet.

2. Which parks in Merton do you use the most and why?

3. What information about parks do you use most often (such as hour of operations, directions, facilities, etc.)?

4. Would you use the parks more often if you knew more information about them?

5. Do you know about the current Merton Parks website?

6. What would you like to see on the new website regarding information about the parks and activities available in Merton?

7. Would you use such a website to obtain information? Why? What would make you use such a website?

Appendix F: Phone Interview Guide

1. What software do you use to browse the internet?

2. How often do you update your internet browsing software?

3. What would you say is your level of familiarity with using the internet?

4. Which parks in Merton do you use the most and why?

5. What information about parks do you use most often (such as hour of operations, directions, facilities, etc.)?

6. Would you use the parks more often if you knew more information about them?

7. What park activities are you most involved in?

8. Do you know about the current Merton Parks website?

9. What would you like to see on the new website regarding information about the parks and activities available in Merton?

10. Would you use such a website to obtain information? Why? What would make you use such a website?

Appendix G: Voice Recorder Consent Form

Q. Saud Ahmad
Eun Kim
Daniel L. Paster
Darren Torpey

Voice Recorder Consent Form
January 15, 2003

I agree to have an audio recording made of this meeting. I understand that all information during this meeting will only be used as research for this project.

Please sign below if you agree with the statement above.

Appendix H: Feedback Questions for Iteration #1

1. Are there any comments on navigation; first the site sections and then the individual links?

2. What do you think of the layout?

Appendix I: Feedback Questions for Iteration #2

1. Do you think that you would have any difficulty getting to certain parts of the website?

2. Was there anything confusing about the website?

3. Are there any specific changes that need to be made?

4. Are there any other general comments about the template?

Appendix J: Web Manager Interview Guide

1. Do you have a written policy statement and if so how can we get a copy?

2. What technologies does Leisure Services currently use and what technologies do you have available to you?

3. Are there any specific content guidelines, besides those specified in the DDA, which we need to follow?

   a. Are there any certain language regulations (such as multi-language capability or a certain grade-school level of vocabulary)?

   b. Are there any policies regarding specific sites or a type of site in general which we must or must not link to?

   c. Are there content requirements such as contact/organisational information regarding Leisure Services?

4. Do you have any websites in mind which exemplify the type of design you are looking for in the new site?

   a. Are there any sites, which you have in mind, that exemplify the type of filtering/searching services you wish for the new site to have?

   b. Are there any sites which have a style (colours, fonts, etc.) that illustrates the style you wish the new site to have?

Appendix K: Department Manager Interview Guide

1. How do you visualize/imagine this site to be?

2. How can this website be useful/helpful for your department?

3. What information do you have on the current Merton site related to park/leisure?

4. What information would you like to see on the site?

    a. What kind of links do you have to be put on the site?

    b. Where can we find this information?

5. What questions are most frequently asked of your department?

6. What complaints are you faced with most often?

Appendix L: Transcribed Notes from Department Managers

Focus Group

Focus Group # 1: Managers

Managers Present: Ms. S. Brooks (Nature Conservation)
                      Mr. J. Tweddle (Parks Manager)
                      Mr D. Lofthouse (Tree Expert)
                      Ms. A. Doherty (Landscape Manager)
                      Mr. B. Bullon (Cemeteries Manager)

Question: What information do you have on the current Merton site related to parks/leisure?
- no information available on parks, trees, cemeteries, playgrounds, play (sports?)
- some information available on nature reserves
- there is contact information available on the site but that just increases amount of phone-calls about subject which could directly be provided on the website
- general public and even staff do not know what is on the website
- the site should link to communities outside of Merton (interact with communities outside of Merton)
- the site should also have a promotions page telling the public about the accomplishments of leisure services (awards, etc.)
- an example of the inadequacy of the site is that there is no mention of any information about Wimbledon

Question: Are there any Frequently Asked Questions about different departments?
- Can we link to other trees sites? People ask about contractors, consultants, etc.
    o Who to contact and how?
    o How the process (of whatever they need to do) works?
- People ask about the timings of the parks because they alter with season, holidays, weekends, etc.
- Sports (announcements). Manager would like to see the front page as a news source of events in Merton.

Question: Would you find a regular e-newsletter useful?
- Yes, it is a good idea, but would require commitment and effort. Who would make it and send it? Time is a constraint. Would it be monthly, quarterly, annual?

Question: How about an automatic e-newsletter where the site itself sends the newsletter out with the current information loaded on the site?
- Yes, that is a very good idea.

Question: Would a feedback system be useful?

- Yes it would and a complaint system is already present. It is called CONFIRM.
- Just the email address of the relevant person should be present on a particular page for comments/complaints. Could also have a discussion forum but that would need a lot of effort (moderation, expectation of answering questions, etc.). Such a forum might be filled with unnecessary comments and would reduce efficiency.
- There should be easy navigation throughout the website, so that people can find what they are looking for and shouldn't have to search through different pages a lot. There should be a site-map/index where people can look up information.
- The site should have a big map of the entire area. By clicking on this map, people can find all activities/facilities present in that area of Merton.
- Leisure services should be at the front page, and there should be links to everything else from that page.
- Navigation should be easy and all information must be easily searchable.

Question: Site will have different face depending on what you are looking for.
- But would that make it harder to update? It should not be hard otherwise it will no be updated.
- QOD: "Until we get that new computer, the death one." – Chris Mountford
- Would people be able to book tickets online? – No, that's something in the future.
- Who will do the updating?
Frequently Asked Questions would be nice to have online.

Appendix M: Transcribed Notes from Friends of Merton

Focus Group

23 January 2003

Focus Group #2: Friends of Merton

Present: Mr. R. Law, Mr. S. Comfort

Question: What software do you use to browse the internet?
- Internet Explorer
- Do not use the internet often

Question: How often do you update your internet browsing software?
- Whenever Windows recommends (does it automatically)
- Do not know

Question: What would you say is your level of comfort while using the internet?
- I have no problem at all. I even buy online (from Amazon.com). It is all very effective. Check the NASDAQ index often, but it gives away cookies to third parties. The internet is dreams come true when dealing with a site that knows what its doing.
- I am frustrated with computers. I'm not very comfortable moving about online. I feel that the internet is not being used to its full potential in Merton. I've tried learning to use it but I haven't been able to really figure it out yet.

Question: Which parks in Merton do you use most often and why?
- I am the chairman of the Wimbledon group. So I use that park most often. I also use Wimbledon Common. Wimbledon Park and Wimbledon Commons
- I am the chairman of the Lewis Road Recreation Ground. A boy was killed here some time ago by a drug dealer. I would like to enjoy the park but it is unsupervised, under funded, and totally unprotected. It is a big task to convert that park to a good standard park. It's unsafe, unclean, and ignored, but I've used it since I was a kid so I still use it now.

Question: What information about the parks do you use most often?
- The part of the Merton site that deals with Wimbledon Park is a very static statement of what you can do at the park. The information on the Merton site about the park is inaccurate and the deliverables stated on the site need to be validated (are not present on the site?). The Merton council should validate all the data and update it. There are 12 tennis courts in the park (the park's biggest asset ~£4m). Booking is a big problem, and sometimes the attendant isn't at the courts, so making the booking web-based would be a great improvement. There should

also be park announcements, for example the site can announce "Courts Closed" when it is raining outside. There should also be a chat area where people can set up matches and also mix in. there is a lot of potential for the website in that area.

- The site only says "No park keeper, dangerous dogs on the loose." It also says that there is nothing in the park and that it should be closed. This is unfair, because this park should be better, and be made equal to all other parks. Money is available but we have to apply for it. There should be a minimum requirement for the amount of info each park gets put on the site. Right now it is one-sided to the better parks.

Question: Would you use the parks more often if you knew more information about them?
- Absolutely, if the site is interactive. I would like to have everything set up through the website. If park booking was available online then I think it would increase park usage.
- Yes, 100%. I have good memories of the park but they fade. If the information about the park was available online and they had (good) news about the park and if the park was good then people would use it.

Question: What park activities are you most involved in?
- Tennis, sailing (but it is very expensive to set up).
- Kids can only use our park with special supervision. All we want is a good and safe park. We want to get the public concerned about it so that they can take care of it. The park is not being used to its full potential.

Question: Do you know about the current Merton parks website?
- Only about Wimbledon.
- No

Question: What would make you use a parks website more?
- If there were more information about the activities available online. The current Wimbledon site is www.wphg.demon.co.uk. Since it is historically an important park more information about it should be up on the website.
- I want to use the site but it is hard to learn to use the internet. I need someone to watch and then learn from. Interactive TV?

Question: Is the information about Wimbledon Park inaccurate?
- Navigation is good on the website but information could be made interactive.

Question: Should the Merton site put up and maintain an announcements board?
- The site could be made a very useful tool if used properly. 80% - 95% of the kids playing tennis in the park are computer literate.
- The parks themselves should be made good first, and then any kind of website should be thought about.

Additional comments:

- Documentation is critical
- Training is necessary to enable many more to use the site (maybe inform people on how to use the site or where they can learn how to use the internet)
- Part of the rent from the tenants near the Lewis Road Recreation Ground should go to the upkeep of the park

Appendix N: Transcribed Notes from One O'clock Club Focus Group

22 January 2003

Focus Group #3: One O'clock Club

Notes:

When asked what internet services they used the responses were: hotmail, telewest, and freeserve, or that they had no idea

They did not know about the leisure site, and not many knew about the Merton site. They did not see advertisement for the site or what it offered (i.e. the site was not publicised, at least not where they would see). One used the site to find out about the changes in rubbish pick-up times on holidays.

They commented that getting information by phone was much faster than by internet. The internet was slower because of poor connection speeds and because they had to sort through too much "rubbish" to find what they wanted. One lady said she used the internet about once a week, and another said she never used it. They commented that the internet wasn't specific enough when they did searches. One said that she wouldn't go to the site unless there was something special (maybe offer coupons?).

The information they would want on the site was:
The parks' locations
The parks' hours
The parks' facilities
Whether or not the park had toilets (and if they were cleaned regularly)
If the park had splash/paddling pools
If the park was suitable for young children (no bothersome teenagers or older children that would intimidate the toddlers) or if the park had a keeper
What special events, fun days, holiday activities were offered and at what parks
The parks chart that is featured in the leaflet
Clubs for children
Duck feeding areas
If bikes were allowed
If there were swings
If there were food services at the park
Miscellaneous:
They were not aware of the parks' awards.

They wished the parking lots had priority parking for parents with small children, or an attendant because people drove too fast in the lots.

They said they used the computer programmes at the libraries, so that would be a good place to advertise the sight (Merlin/Wizard programmes?).

The packets that parents get for new-borns or young children with leaflets, coupons, info, etc, would be a good place to advertise the site or the parks.

They wished there was more info in the actual park

Question: What software do you use to browse the internet?
- Internet explorer
- don't use the internet

Question: What is your level of comfort while using the internet?
- Average
- all right
- the internet is much slower than just using the phone
    - the time it takes to search for something is slow
    - the time it takes for a page to found after we have found it is also slow
    - its hard to come out with specific results, internet searches produce very general results

Question: Which parks in Merton do you use the most and why?
- Don't use public parks, have private park with apartment building (Western road)
    - Sometimes use local public park
- Colliers Wood Recreational Park, Tamworth, Wandall Park(Colliers Wood), Morden Park

Question: What information about parks do you use most often?
- Places to change kids' clothes, diapers, etc.
- Check if public toilets are available in a park and where
- The current parks don't have signs showing where public telephones, walking trails, toilets, help areas etc. are available
- Where the parks are located and how to get there (directions)
- Whether they have paddling pools, toilets, and other facilities
- Don't really look for park closing times because small kids get tired very early and leave before closing time anyway

Question: Would you use the parks more often if information was available online?
- Yes
- No
- Yes, but they do not publicise it enough. There are no leaflets saying what activities there are and which parks you can find those activities at.

Question: What if the website was advertised more?
- Not really

Question: What park activities are you most involved in?

- Play equipment, splash pools, swings
- Feeding ducks, kids bikes, location of toilets
- Should have a map that shows all the parks and how to get to them
- Should give out packets with information for facilities available for kids
- Choices for Children (previously called Under Eights Directory) is published but not publicised. Its freely available at the library but people just don't know about it

Question: What if such info was available online?
- Maybe we would look it

Question: Do you know about the current parks website?
- No

Question: What would you like to see on a parks website?
- Hours of operation
- Available facilities
- Holiday clubs, special events, announcements, catering facilities
- Whether parks are suitable for small children (child safety)
    - Would also prefer some kind of statistic on age of users of a particular park (especially teenagers)
- Whether a particular park has a park keeper or not

Question: Would you also like to have directions to parks available online?
- Should have signs on the road saying "park is here"
- Signs should not only have a park's name but also which road its on, etc.

Question: Would you use a website if it had all the information on it?
- Already do use the Merton Council's site to look up everyday things such as rubbish pick up time, etc.
- Should advertise the site a lot, there should be posters everywhere
- If you searched for a person on the site you would never find him/her

Question: Do you know about the awards that Merton has received?
- No

Additional Comments:
- Libraries have a lot of local info so people just use them instead of websites
- Its hard to spend a half hour looking for something online when you have a small child with you
- Use the internet once a week, or not at all
- There should be a clickable map of Merton online

Appendix O: Transcribed Notes from Sports Clubs Focus Group

29 January 2003

Focus Group #4: Sports Clubs

Expected: Mr. T. Pollack (Hercules Wimbledon Athletic Club)
              Mr. Thumwood (Merton Rugby Club)
              Mr. E. Ferebee (Battersea Ironsides)
              Ms. M. Martin (Morden Little League)
              Mrs. R. (Wimbledon Park Ladies Bowl Club)

Present: Mr. Pollack   (P)
              Mr. Thumwood   (T)
              Mr. Ferebee   (F)

Question: What software do you use to browse the internet?
- (P) Not sure, maybe Internet Explorer
- (T) Netscape Navigator
- (F) Internet Explorer

Question: How often do you update your internet browsing software?
- (P) I just got a new computer, the older one had some problems. But I have not updated yet and I do not know how often the system does it.
- (F) My computer crashed and I lost all my data, so I just had windows reinstalled.

Question: What would you say is your level of comfort while using the internet?
- (P) Very basic
- (T) Not too comfortable
- (F) I would rate myself 0.5 on a 0 to 10 scale

Question: Which parks in Merton do you use the most and why?
- (P) Wimbledon Park (use the track for running) and Wimbledon Commons
- (T) Play Rugby, so I use all the places with Rugby facilities
- (F) Abbey Recreation Ground (for cricket), Dundonald Recreation Ground, Commons Extension (for football)

Question: What information about parks do you use most often?
- (P) I don't live in Merton, but I like to know the hours of operation of Wimbledon Park.
- (T) I use very limited facilities and I already know everything I need to know so I don't look for information much.

- (F) Since I have lived close by for a very long time, I know most of everything I need to know. Unless something goes wrong in one of the parks, I would not look for any information (ex: maintenance contact number). Even if I were to look for information I would take my car and go out to ask people, not sit in front of the computer and look for information there.
- (P) If someone wanted an overview of the parks, they would just look at a map of the Borough. On a website that is difficult because it is hard to fit an entire map, with all its details, onto a computer screen.
- (T) Having information on a website would be useful to me because I live miles away from here. I would not want to come to the civic centre to look for a small piece of information. Still I would not think of looking on the internet unless the site was heavily publicised/advertised.
- (F) Say I play hockey. If I needed information about hockey I would look for it at the place where I play not on a website. If were looking for the information, I would look for two things, (1) are there any local hockey clubs, and (2) where are the clubs' facilities located.
- (P) I would not look on the site because if there are links in the Council's site's Leisure Services section then I have never found them. Are there an private clubs that provide that provision?

Darren (to P): I agree with you, and we do not know if there are links anywhere.
- (P) It is a very haphazard website.

Question: If someone was looking for a website they might not look under leisure. Do you think so?
- (P) "Sports and Recreation" is a better title than "Leisure Services."
- (P) Sometimes people call me and say that they obtained my phone number from some website, but no one has ever said that they got it from the Merton Council's site. This is because is not on the Council's site.
- (F) I agree no one calls from Merton, because no one can find my number.
- (P) There is a Sports Directory that has contact information. I think people just look there instead.
- (T) Rugby clubs are obligated to have their own website. So we have one and it has all the information on it.

Question: If the Merton site could provide one common search place which would provide you with links to other relevant sites and contact information, would you use it?
- Yes (Everyone)

Question: If you saw an advertisement for a new site, what would you be looking for in such a site?
- (F) Say I want to reserve a cricket pitch after a certain amount of time. So I would like for a site to have booking facilities which I could use to book the pitch from my home. I would also like to have a "daily announcements" section on the site that would tell me whether a game that has to be played today is still on or off.
- (T) We would do a similar thing for Rugby.

- (F) Tennis is another example. If I could book the courts online that would be very convenient.
- (P) I was at the Wimbledon Park track some time ago, and that day the track lights did not work. If this announcement were put online in advance, I could have saved some time and not gone to the track on that day.

Question: Are you aware of Merton's awards?
- No. (Everyone)
- (P) I do not think the site is good. If they got an award for it, then I wonder what a site that really is good would be like. Merton's site is hard to navigate through and it needs better titles and link routes. It should be clear to understand.
- (P) Wansworth's site has a lot more information than Merton's site. It has clear link and it is easy to navigate through. On Merton's site you have to click through a lot of different links to get to what you are looking for. Merton's site has very bad organisation. You should take a look at other council sites to see how they are planned. Merton needs a homepage that has a lot more information than the current page, but without overwhelming the user.

Question: Does less number of clicks on a site make it less disorienting?
- (P) Finding route to get to information has to be easy. (Easy navigation)
- (F) Having information available on the first page is easier than having to click a lot to get to where you want.

Additional Comments:
- (P) The site should have contact phone number with each department.
- (P) There should be a mechanism so that when the Council's staff receive email, they can respond immediately.
- (P) Having your own publicity department is a very good idea, but it requires the availability of more resources. A website is only as good as the material on that website.
- (P) Each park should have a sign at each of its entrances listing all the facilities that are available in that park.
- (P) The Council does not have an obligation to leisure services. That is why they have constantly cut the leisure budget.
- (P) The current homepage has very little information on it. It has big images that can be shrunk and the space can be utilised.
- (F) The titles on the current site are very misleading.
- (P) I don't understand why a department called "Leisure Services" has sub-departments like cemeteries, libraries, etc. This is all very confusing. They should change the title to something like "Sport Activities" and reorganise everything.

Appendix P: Transcribed Notes from Interview with Mr. S. Gasson (Web Manager) and Mr. L. Buckley (Assistant Web Manager)

Q: Do you have a written policy statement and if so how can we get a copy?
- No leisure services guidelines, but council policies might be there (look at guidelines packet)

Q: Are there any specific content guidelines, besides those specified in the DDA, which we need to follow?
- Example of regulations: anything that runs using Java should be able to run equally without it

Q: Are there any certain language regulations (such as multi-language capability or a certain grade-school level of vocabulary)?
- Notes about language are present in the guideline packet. No other regulations.
  - Avoid linking to sites like Altavista for translation services

Q: What technologies does Leisure Services currently use and what technologies do you have available to you?
- Technologies available
  - NT Server
  - Dreamweaver
  - Sequel Server 7

Q: Are there content requirements such as contact/organisational information regarding Leisure Services?
- Mirror site is available for us to preview any additions to the actual site
- Must use council's network to upload anything
- Good idea to refer people to other places, just have links to local organisations (job listings, etc.)

Q: Comments on getting feedback from the public.
- Can use unlinked folder from website to get public feedback
  - Paid people to receive feedback (Resident Panel?)
- Have to ask people what would be useful and what they would like to see.
- Have survey in the right place, for example Wimbledon is a good choice because it is a rich area and people have free time to get involved in activities such as parks

Q: Comments on promoting the website.
- Council publications do not have the address of the website on them
- A monthly newsletter is a good idea
- Advertising: we should do this
    o Different kinds available
    o Should talk to our office people (administration) about communication with people
- An idea for what people would like to see on the would be to have customer services log calls and ask them what type of problem the caller has, can also remind them if the answer is online (www.merton.gov.uk/…)

Additional things to keep in mind:
1. If we want to survey park users we should ask how many of them are actually connected to the Internet.
2. If we need to put surveys online we can just give them to Len or Spencer.
3. If we have to go to the Civic Center we will need security passes.
4. Security (already accounted for because all content goes through Web Manager)
    a. Data protection
    b. Misuse of forums, etc

Appendix Q: Transcribed Notes from Interview with Mr. D. Lofthouse (Arboriculture)

<div align="right">23 January 2003
4:10 – 4:30 pm</div>

Q: How do you visualize/imagine this site to be?

- Simple for people (navigation)
- Formal book format, have an index or contents page where the user can look at it and find the information they want easily. No pretty boxes or buttons

Q: How can this website be useful/helpful for your department?

- He can only answer certain amount of questions
- Not sure about the FAQ because he feels the best way is to talk to the person about their problem. He wants to inform people about what they do and how they do it but don't want phone calls asking him questions about subjects he does not know.
- The website should direct the public to the correct people to get the right information, such as a list of contacts.
- The website will answer the basic questions online and direct the remaining to relevant contacts.
- If the questions pertain to his area of the field then he is willing to talk to them.

Q: What information do you have on the current Merton site related to park/leisure?

- Nothing concerning trees

Q: What information would you like to see on the site? What kind of links do you have to be put on the site?

- Links to organisation (such as arboriculture organisation) which provides list of contractors and consultants that are approved. Need to explain what this organisation is and provide the appropriate links on the site.
- Would like to have links to tree warden and friends groups (Cherrywood has a nice website)
- Would like to add new links to the website when he finds useful links or site.

Q: What questions are most frequently asked of your department?

- FAQ 1: How to sponsor a tree

- FAQ 2: complaints about housing and highway trees. He can only advise them but not give direct answers.
- FAQ 3: Trees damaging property. Present the basic information on what to do and then contact him if they have more questions.
- FAQ 4: About woodlands, trees, legislation, planning issues (not his area)

Additional comments:

On the site put:
  o events (current and past)
  o nature conservation and ecology
  o statistics about trees and environment,
  o information about how to buy trees, what to buy, where to buy it

Questions to us from David

Q: will there be field testing?

- We will run it through in iterations

Q: Have you seen the Arts site on Merton's website? Maureen Pepper – Arts Section has a website up and running. People have already started their own website. Will I be able to use my site before others?

- We will probably launch one page before others, depending on if anyone is in a rush to have a website running.

Q: Will I be able to link to other organisations or do I need permission?

- Usually you just need to call up that organisation and get permission from them to have a link on the website. Also ask the web manager just in case there are any problems or guidelines.

Appendix R: Transcribed Notes from Interview with Ms. C.

Parsloe (Sports & Leisure)

28 January 2003
10:07 -10:25 am

Q: How do you visualise the new site to be?

- It must show positive things about parks and make clear to the public what is available at each park.
- Have information on how to book facilities
- Show the recreational opportunities available, things that people might not think about doing (such as flying kites or having picnics); suggestions on activities and events that could be held at parks (parties, corporate events)
- Links to Friends of Merton or group of people who have a particular interest in parks
- Don't want the site to have links for demonstration groups or complaints
- Instead have a comment form or suggestion form where people can download it so that it can be sent through postal or electronic mail. If this is available, then there must be a note stating the expected response time.
- Have a website with a positive angle.
- Show advantages of keeping the parks clean (health and safety reasons)
- Encourage people to pick up trash and not litter by showing the benefits and advantages
- If they have a complaint, ask if they have a solution to the problem or what they can do to help solve the problem.

Q: How will the website be helpful to the sports department?

- It will provide services such as booking facilities for play
- There will be links to Wimbledon parks and other parks in the area with the facilities available.
- Also there will be a list of events (such as Tennis Fun Day) and links to events that might interest different age groups.

Q: What information do you currently have on the website regarding sports?

- No idea. You would have to look at the website. Ask Caroline about the information. She deals with the website content and works with the web manager.

Q: What questions are most frequently asked of your department?

- Most questions asked regard booking facilities, the prices, times, availability.
- The who, what, when, where, why, and how

Q: What complaints are you faced with most often?

- Pricing of booking a facility
- Lack of availability of a specific sport
- Dog feces around the park
- No specific or common complaints

Appendix S: Transcribed Notes from Interview with Ms. R. Hutton (Nature Conservation)

Q: How do you visualize/imagine this site to be?
- have better navigation/ better links
    - for example, click on park info, then be given a list of parks, and then click on the name of the park you'd like to see
- have a sitemap

Q: How can this website be useful/helpful for your department?
- less phone calls because they can inform the people that they can get the info off the website

Q: What information do you have on the current Merton site related to park/leisure?
- specific site is separate from the leisure services site
- has a map of the borough and the nature conservation sites in the borough
- also has a playground site/section

Q: What information would you like to see on the site?
- current events (that can be updated by the department, not have to go through the long and tedious web development team process)

    o What kind of links do you have to be put on the site?
        ▪ links to parks and sites
        ▪ link to "English Nature" www.english-nature.org.uk which gives grants to small sites
        ▪ link to the newsletter "Wild Merton" and maybe have back dated copies and the current issue posted
        ▪ link to friends groups or sites, for example cherry wood

    o Where can we find this information?
        ▪ Ms. Hutton

Q: What questions are most frequently asked of your department?
- when will the grass be cut
- who to speak to concerning various issues, such as litter
- what is going on at certain sites, such as development or construction plans (usually concerned callers who see something happening)

Q: What complaints are you faced with most often?
- vandalism, graffiti
- complaints when nothing happens regarding their previous phone call

Appendix T: Transcribed Notes from Interview with Ms. S Brooks (General Information)

Q: How do you visualize/imagine this site to be?
- better navigation, clearer, more interesting

Q: How can this website be useful/helpful for your department?
- number of phone calls cut down because people will use the site instead

Q: What information do you have on the current Merton site related to park/leisure?
- just contact information

Q: What information would you like to see on the site?
- park sites, what they have for facilities (saves giving out leaflets)
- current events and ticket information

   o What kind of links do you have to be put on the site?
      ▪ not sure

   o Where can we find this information?
      ▪ Ms. Brooks

Q: What questions are most frequently asked of your department?
- where are the newest playgrounds, tennis courts, etc.
- when are the ticket offices open

Q: What complaints are you faced with most often?
- dog mess
- bins emptied
- litter in parks
- graffiti
- abandoned vehicles

Appendix U: Transcribed Notes from Interview with Mr. J.

Tweddle (Parks)

Q: How do you visualize/imagine this site to be?

- Council's sites are difficult to navigate through.
- Should have easy navigation and clear links.
- This department confuses people because they might not look for "Parks" under a title like "Leisure." Parks should be classified elsewhere.

Q: How can this website be useful/helpful for your department?

- It should stop calls from members of the public who are frustrated by providing correct contact information for each department.
    - Sometime people have to spend a lot of time to get connected to the department they are looking for
    - The site should have correct contact information.
- Site should also tell the public what Leisure Services is doing.
- We should be easily be able to inform public of what is going on in the parks.

Q: What information do you have on the current Merton website related to parks/leisure?

- Very little.
- The information hasn't been updated in a while so its pretty old.

Q: What information would you like to see on the site? What kind of links do you have to be put on the site?

- The information leaflet we give out should be put up on the site.
    - It contains a map and has a lot of information about all the parks.
- There should also be daily announcements on the homepage. The most important ones are concerning whether games are on or off.
- Link to Wimbledon Park, John Miles contact information (Manager at Wimbledon Park), and other leisure centers
- Links and contact information to rest of Leisure industry
    - These really need to be mentioned on the site
- Link to a national database of "friends" groups

Q: What questions are most frequently asked of your department?

- FAQ1: Hours of operation
- FAQ2: Is there a ranger in the park? Is he permanent of mobile?
- FAQ3: What facilities are in a park?
- FAQ4: Where is my local park?

Q: What complaints are you faced with most often?

- Dog bins
- Litter
- Lack of information to the public

Appendix V: Transcribed Notes from Interview with Ms. A. Doherty (Landscape & Play Areas)

31 January 2003
12:00pm – 1:15pm

Q: How do you visualize/imagine this site to be?

- Should be easily accessible to the public
- Should have easy navigation
- Title should be clear and understandable
    - So people can get to the information quicker and with ease

Q: How can this website be useful/helpful for your department?

- It should deal with the general questions that people have
    - They usually just call about it, but that wastes a lot of time.
    - Ex: location of a park, hours of operation, etc.
- In other words, it should have FAQs.

Q: What information do you have on the current Merton site related to park/leisure?

- Nothing specific to play areas on the site
- If people search for "playground," play section might not be a result.

Q: What information would you like to see on the site? What kind of links do you have to be put on the site?

- There should be at least one Borough map
    - There is one on the current site but it overwhelms users with a lot of details
    - It should be clickable so users can select what area they want.
    - There should be a map with just the main routes in Merton
    - It should contain local play areas and all information about them
    - It should have clear and correct contact information about the department.
    - It should have all play areas listed in alphabetical order.
- A layered map would be good too. Something that highlights play when you click "play" on a sidebar or something like that.
- Good idea to have smaller optional maps of Wimbledon, Mitcham, and Morden.
- There should also be a basic borough map with greens.
- The current information leaflet that we hand out has some wrong information on it.
    - Information leaflet is not available everywhere, you have to ask for it.

- There should be an announcements section. But that might be a problem because vandalism is very common and so I would have to post a lot of announcements.
- Also the site should have a database of all the paddling pools in the area, because they are very popular and should be made their own little section (outside of 'play'). The site should have information like what months they are open and what the hours of operation are.
- Not sure about links on the site, maybe RSPA (Royal Society Prevention of Accidents) and a list of contractors, but not sure about that.

Q: What questions are most frequently asked of your department?

- Where are the local play areas?
- Why is a certain part of a play area closed off?

Q: What complaints are you faced with most often?

- Not too many, unless something has gone wrong.
  - Will get calls if something in a play area is broken.
  - Will get calls if someone has had an accident. So having the contact number online is a good idea.
- Sometimes get complaints through CONFIRM, which is a central database of complaints.

Appendix W: Transcribed Notes from Interview with Mr. I.

Husain (Arts)

<div align="right">
31 January 2003
4:45pm – 5:00pm
</div>

Q: How do you visualise imagine this site to be?

- Simple, clear and to the point
- Homepage should be simple with, maybe, one or two links
- Should have a by-line about arts (quality, sustainability)

Q: How can this website be useful/helpful for your department?

- For information exchange
  o Grant scheme
  o Events and Announcements (a database where you can put up stuff)
  o Links to useful information
    ▪ Arts Council of England
    ▪ Association of London Government

Q: What information do you have on the current Merton site related to park/leisure?

- Arts department has its own page
- Information on page is outdated
  o People want to put up new stuff but the old stuff never gets taken off
- Navigation is not good
- Should have a calendar with all events
- Title not completely intuitive, and sometimes the page gives you all the information at once which is a problem

Q: What information would you like to see on the site?

- Page should first mention general information, then get specific
  o People should be able to "click and get" what they want

Q: What questions are most frequently asked of your department?

- Queries about Funding (Community Fund)
  o Grants up to £2000
- Sometimes people call to inform us about their own events
- Need a links page be a resource for people so that they can see the bigger picture and "what else is out there"

Q: What complaints are you faced with most often?

- Not celebrating a particular event/festival
  - People ask, "why aren't you doing something about it?"
- People call when they don't get their funding
  - Criteria for funding needs to be made clear on the site

Other Information:
- Currently there is an arts page on the Merton site
- Iqbal does put up notices and information on to that site
  - Anything that gets put on the bulletin board gets approved by Iqbal
- Updates to the site done thorough Len (Asst. Web Manager)

Appendix X: Transcribed Notes from Phone Interviews

Phone Interview with Ms. E. Godbold (Friends of Merton)

Question: What software do you use to browse the internet?
- Internet Explorer

Question: How often do you update you internet browsing software?
- Do no have computer at home, use internet at the local library

Question: What would you say is you level of comfort while using the internet?
- Comfortable, proficient

Question: Which parks do you use the most and why?
- Don't use parks in Merton

Question: What park activities are you most involved in?
- Swimming, reading, residence association, gardening, flower arranging

Question: What information on the parks and activities would you like to see on the site?
- Would like to look online for local events and announcements.

23 January 2003

Phone Interview with Ms. F. Davis (Friends of Merton)

Question: What software do you use to browse the internet?
- Do not use the internet

Question: How often do you update you internet browsing software?
- Look at answer above

Question: What would you say is you level of comfort while using the internet?
- Look at answer above

Question: Which parks do you use the most and why?
- Used to go to Mitcham Commons, but don't go much anymore

Question: What information about parks do you use most often?
- I look at local library pamphlets for all information, do not look up any particular information otherwise.

Question: Would you use them more often if you knew more information about them?
- Don't use the parks much anymore

Question: What park activities are you most involved in?
- Tennis, Walking, Golf

Question: Do you know about the current Merton Parks website?
- No

Question: What information on the parks and activities would you like to see on the site?
- Just the local announcements, but I can get those from the library as well.

Question: Would you use such a website to obtain information? Why? What would make you use such a website?
- Don't use the internet

Appendix Y: Transcribed Notes from E-mail Questionnaire

Reply 1: Mr. R. Price (January 28, 2003)

1) Use internet extensively as part of job.
2) Raynes Park Sports Ground, Taunton Avenue. It is the home ground of Raynes Park RFC, the club has one team playing there every Saturday from 1st Saturday in October to last Saturday in March.
3) Apart from booking information at the start of each season, I do not seek information about parks.
4)Unlikely
5)No
6)Facilities available, cost of hire of sports pitches etc., booking facility, reporting facility e.g
we have reported the same fault three times and nothing has been done.
7)Yes. Convenience. If I needed to book sports pitches.

Reply 2: Mr. L. Pearcey (January 29, 2003)

  1. Pretty familiar.
  2. South Park Gardens (because it's round the corner); Cannizaro (because it's our favourite).
  3. None.
  4. Probably.
  5. No.
  6. Which ones you can get refreshments in.
  7. Probably.

Reply 3: Ms. H. Fuller (January 30, 2003)

1. OK
2. South Park Gardens because it is near. Cannizaro because it is peaceful and uncrowded. I used Wimbledon Park a lot when my children were small but not so much now.
3. The only information I am aware of is in the parks on notice boards. The Cannizaro board is excellent and I would like to see a board like that in other parks.
4. Probably.
5. No. We don't get the Wimbledon Guardian round here and I've never seen it publicised in the Library or anywhere else.
6. Location maps, directions, facilities, hours of opening, 'friends' groups details - links with other sites.
7.Yes if it was easy and useful and not full of advertising or unnecessary info.

Reply 4: Mr. D. Champness (February 7, 2003)

1. None.

2. Cannon Hill Common & Morden Park, as I live near to both and use them daily to exercise our dogs.
3. None.
4. Not personally.
5. No.
6. Yes.
7. Not personally-having lived in the area for 27 years, I am familiar with existing facilities.

Appendix Z: Transcribed Notes of Feedback #1 from Leisure Services Staff

Feedback Focus Group for Iteration 1

February 14, 2003
Session 1 (10:00am – 10:45am)

Leisure Services staff present:
Ms. A. Craigwell (AC)
Mr. D. Lofthouse (DL)
Mr. J. Tweddle (JT)
Ms. M. Pike (MP)
Ms. S. Brooks (SB)
Ms. A. Doherty (AD)
Mr. C. Mountford (CM)
Ms. J. Wells (JW)
Ms. J. Jasper (JJ)
Ms. A. Allan (AA)

Notes:
   - Mention that date format will change
   - Individual department pages not set up yet
   - Search results will look better in the future
   - Each park will have individual link with information and photographs
   - When FAQs and announcements are added, they appear in different order (one shows most recent on top, the other shows most recent on the bottom)

Feedback:

DL: Will there be external links and searching options for individual departments?
Darren: Yes

JT: Will there be a map online to search for parks?
Darren: Yes, but we haven't obtained one yet.

JT: Who will update the page?
CM: Two or three people will be assigned editors and they will update it.

JT: There should be more colors/pictures, etc.?
Darren: Yes you will be able to add whatever you want, including pictures but right now we're concentrating on organisation and structure.

CM: What will be put in the sports section?
Darren: The content of that section hasn't been determined yet.

DL: Will you be able to change the sections?
Darren: Yes anything on the website can be easily changed. Nothing on the template is set.

CM: Should the events be on the homepage or should there be a link to an events section?
Darren: We can decide on that. We can put the three most recent events on the homepage and put the rest on a linked page.

CM: The title "Announcements" seems boring. The title could be made more interesting, otherwise the language of the page can get boring.
DL: The present interface is simple and good.

Darren: We are thinking about a "Quick Links" box between "Site Sections" and "External Links."

CM: Searching on the current site is very hard. If you try to look up "parks" it results in references to "parking meters."

JT: Example of a good website is the Gilsford page. Example of a bad website is the Merton website. You can't find the current website.

1. **Are there any comments on navigation; first the site sections and then the individual links.**

JT: You have to go to parks to get to FAQs.

CM: Does everyone know what a FAQ is?
All: Now we do.

SB: You should write "Frequently Asked Questions" instead of "FAQs." Or how about displaying "Frequently Asked Questions" when the cursor is over the link?
Darren: Yea sure

AD: Is it possible to have a listing for services by alphabets? (*showed everyone the example website*)

JW: Can we put "Merton" in front of Leisure Services so that outside visitors will know that this website is for Merton Leisure Services.
Darren: Well the site will be within the Merton website so there won't be a need for that.

DL: What about a contacts page?
Darren: Yes

AD: Can we have a contact facility or complaints board/forum? *<shows example on the sample website>*
Darren: Yes

CM: Can we click on someone's name and the site will automatically start up the mailing program that has been set up on the computer and email that person?
Darren: Yes

2. What do you think about the layout?

CM: The box look of the site is distracting, maybe because of the present color scheme. Boxes are good to highlight announcements or events.

Darren: Current site is fruity/pastel.

CM: I don't like the colours (David and John agree. Ladies in general agree that they like the colours)

JT: Site should be fun to look at. (*David smiles and shakes head saying no*)

AD: Maybe you can make the text coloured with a white background.

SB: But then it might not be accessible by people who are colourblind. You can ask Trevor about color and stuff because he is colourblind.

Darren: We can change the workings of titles and colors without any problems.

DL: How will changes be made to the site?

CM: We would probably have to go to someone to do it. Someone within the council shouldn't be able to just put up whatever they please.
DL: But will the site be updated fast?
CM: Maybe have someone from each department be in charge of updating the website. This is something we still need to think about and discuss.

Darren: Updating will be easy. The system will maintain a log of all the changes made to the site.

Session 2 (11:00am – 11:35am)

Leisure Services staff present:
Ms. H. O'Neill (HO)
Ms. L. Osmond (LO)
Mr. C. Iles (CI)
Ms. C. McRoyall (CMR)
Ms. A. Stephens (AS)
Ms. M. Devenney-Tiernan (MD)
Mr. C. Mountford (CM)

Feedback:

CI: Are we going to have real FAQs?
CM: Yea sure
Darren: Yes that is not a problem. You can also have a contact for any particular question.

CI: In the list of parks activities would there be a little description of what there is to do in the park (for example flying a kite or picnic) or what activities each park is suitable for?
Darren: Yes
CM: You can put whatever you want on the site.

AS: Would we be able to update this with new content.
Darren: Yes

1. **Are there any comments on navigation; first the site sections and then the individual links.**

AS: Yes, it was very easy and obvious.

2. **Will you be able to do it again by yourself?**

All: Yes, it seems very easy and logical.

CM: You can add and remove pages.

CMR: Can we add/edit individual sections?
CM: Yes we can do that. We will have a designated person in each division to update their parts of the website. Cemeteries will be put on separately.

AS: Good idea that we are going to be updating it ourselves and be responsible for it.

AS/CI: Will be have a manual or tutorial on how to update the site?

Darren: Yes, we plan on leaving some documentation. The site will be easy enough to use it without manuals but we will provide one just so that you can look back for information.

CM: The server will automatically throw out the events and announcements after their associated date is passed.

CI: Can the system archive older events somewhere on the site so that people can see the past events? People are not sure of the dates of events and if they already missed it and it's erased from the website, they won't know that it has already passed.
Darren: Yes, an announcement or event will be removed just from the homepage but will not be deleted from the system database. If you like, under "searching," we can add a search option for past and future events as well.

3. What do you think of the layout?

All: It's pretty good.

CM: Do you know what an FAQ is? (asked to the audience)
2 people: Yes
Rest of the audience: No

CMR: Would there be a clubs' database?
Darren: Yes, in iteration two we plan to put in an organisation search option. We will be having an organisation page with different clubs and brief description about each club.

AS: I think having pictures on the website will be more inviting for users.

Note: Look at Sutton site at http://www.sutton.gov.uk

Appendix AA: Transcribed Notes of Feedback #2 from Leisure Services Staff

21 February, 2003
2:00-2:30 pm

Leisure Services Staff Present:
Ms. M. Devenney-Tiernan (MD)
Ms. L. Osmond (LO)
Ms. M. Pike (MP)
Ms. C. McRoyall (CMR)
Ms. L. Armstrong (LA)
Ms. S. Brooks (SB)
Ms. A. Allan (AA)
Mr I. Husain (IH)
Ms. J. Tapping (JT)
Mr. R. Hobbs (RH)
Ms. A. Stephens (AS)
Mr. C. Mountford (CM)
Ms. E. Henry-Miller (EH)

1. **Do you think that you would have any difficulty getting to certain parts of the website?**

RH: Everything on the contacts page goes under community and cultural services. You need a hierarchy on the site.

IH: There are too many names in the section.

CM: You need description about each member of the staff. There needs to be a description about their jobs so that the users know who to contact.

SB: Contacts don't need to be alphabetical but they need titles with each name.

IH: There seems to be too many options. You need just one way to get into a section. People want to see what they're looking for on one page and right away instead of having to go from site to site.

Darren: We structured the site in the perspective of a public user who does not know the hierarchy of Leisure Services and try to think if they're looking for information about parks, where they would look.

SB: You need to place descriptions next to the names or else people will not know who to contact. They'll just contact the first person on the list and this person might not be the right one to contact for their problem.

RH: You should try to model questions people might ask as they go through the site.

IH: Searching will be useless if they don't know the specific titles or the right words so they can't find the information they're looking for.

Darren: The sections are divided into particular interests such as nature, sports, parks, etc.

EH: Can you expand the side bar and add new sections such as "arts" or "cemeteries" so that people can find them easily?

Darren: The can easily be added or the names of the titles can be easily changed.

2. Are there any specific changes that need to be made?

SB: Maybe put the hieracrchy of Leisure Services online so that people can understand it and know who to contact.

AS: I find the website easy to navigate and easy to use.

Darren: For the future there will be a section on events.

AS: I'm just confused on the external links. What are these links?

Darren: These are just examples to show how it can be used. A lot of the information on the website is just for demonstration.

AS: As Cliff mentioned last week, are you able to leave the past events on the website?

Darren: Yes, it will be put in the events page.

SB: People should be able to search by dates of events or by organisation.

Appendix BB: Website Documentation

1. How it Works

1.1. Technology

The site was coded in PHP 4.0.6 (http://www.php.net) and the PHP-based HTML template system Smarty 2.4.2 (http://smarty.php.net). The HTML content follows the W3C's HTML 4.01 standard (http://www.w3.org/MarkUp/).

1.2. Site Structure

The site's content structure is as follows. The site is primarily broken up to into various sections. Each section is intended to represent a different focus of service for users. For instance, the "Sports" section is designed to cater to the needs of sports players who wish to use parks to play.

Each section also contains several topics. Each primary section contains the topics Contacts, FAQ, and Organisations. "Contacts" is the topic of contact information relating to the section. "FAQ" is the topic of questions and answers relating to the section. "Organisations" is the topic of what local organisations in Merton relate to the section.

1.3. Calling Up a Page

When a user clicks on a link to a page, the website knows how to switch to that page because of CGI information encoded in the link's URL. Each internal link starts with "index.php" followed by a question mark "?" and a string which looks like "section=Parks&topic=None&Item=None". So, for example, the link "index.php?section=Parks&topics=ListOfParks&items=Morden Park" would lead the

web user to the "Morden Park" item page, which is within the "List of Parks" topic within the "Parks" section.

To start, the "index.php" specification is a relative URL specification. The web browser will automatically fetch the absolute directory path of the website and then look for the file "index.php" within that directory.

The meaning of the rest of the URL, that is, all that follows the "?", is CGI language which sets 3 variables (which PHP picks up). For example, the statement "section=Parks" sets a variable named "section" to the value "Parks". Similarly, the statement "topic=None" sets a variable named "topic" to the value "None". This information is then used by PHP to determine what page should be loaded.

1.4. Searching

When a user selects a searching option, information about what they are searching for, by what criteria they are searching, and what information they wish to get back from each result given. That information is then passed on to PHP functions which process the requests. PHP fetches data from the database, applies any additional logic needed to sort through the data and organizes it in such a way that it can easily be displayed in HTML.

2. <u>How to Use It</u>

2.1. Adding Structural Content

The site's structure consists of pages organised into "Sections", "Topics", and "Items". A section can be seen as a main page plus any underlying topics. Any topic is a main page plus any underlying items. Any item is a page of HTML. Therefore, the entire

site's structure is composed of a number of pages, each of which is either a section main page, topic main page, or an item.

2.2. Pages

Adding a new page is as simple as selecting the "Add Page" option in the Updating section, filling out the input areas in the right area (depending on whether you want to add an item, a topic main page, or a section main page) and pressing the "Add Page" button.

When a page is added, the internal link leading to it is automatically added to the website, and the appropriate directories and files are created (see: Directories and File names). In order to specify the display order of the link to the page (compared to others within the same menu), a "Link Priority" field can be filled in when adding a new page.

2.3. Links

Using the site's built-in updating feature, new links and pages can be added to the site from a Graphical User Interface (GUI) provided on the main page of the "Updating" section.

Internal links, as mentioned in 2.1.1, are automatically created when the corresponding sections, topics, and items are created. Any internal links which wish to be added within a page's main text should follow the URL specification given in 1.3. For example, if the text of the page for Cannizaro Park contains (as it did on delivery of the final template) a sentence mentioning the "Friends of Cannizaro Park" organisation and a link to the Organisations page (where information on the FoCP can be found), the text is

wrapped in an HTML hyperlink tag specifying the target URL as

"index.php?section=Organisations&topic=None&item=None".

External links are created via the "Add Links" option in the Updating section. A

section, topic, and item is specified to state where the link should be placed in the site,

and the URL is specified directly. Also, the "Link Priority" field can be filled in to allow

for the display order of the link to be specified.

2.4. Adding Informational Content

The adding of all information content is alike. For example, to add a new

announcement, you first choose the "Add Announcement" option in the Updating

section. Then you just fill in and input boxes and menus and submit the request to add the

item. The content is then automatically added wherever it belongs in the site.

3. <u>Site Content as Delivered</u>

The following are lists and tables describing the specific content of the website

template as delivered to Leisure Services at the end of our project period on February

28th, 2003. Firstly, a table of all the types of data on such things as parks, organisations,

and contact information is given. Secondly, a list of searching services in terms of what

can be searched for and by what criteria is given. Thirdly, a list of all pages by Section,

Topic, and Item is given.

3.1. Information Which Can Be Stored by Website

Contacts	Organisations	Parks
Name	Name	Name
Position Title	Website Address	Location – Street
E-mail Address	E-mail Address	Location – Region

Phone Number	Phone Number	Facilities Hours of Operation
Events	**Announcements**	
Name Start Date End Date Times Sponsor	Heading Message (Short) Message (Full) Posted Date and Time	

3.2. Searching Services

Name	Organisations	Parks	Facilities
Searchable By	-First Letter of Name	-Location [Region] -Facility	-Park -Location [Region]
Name	**Contacts**		
Searchable By	-First Letter of Last Name		

3.3. Sections, Topics, Items

Following the structure:
❖ Section
  ➤ Topic
    ◆ Item

The following is a list of all sections, topics, and items in the website template.

❖ Organisations
  ➤ Q&A
  ➤ Contact
❖ Home
  ➤ [None]
❖ Parks
  ➤ Q&A
  ➤ Contact
  ➤ List of Parks
    ◆ [One item for each park in system**]
❖ Nature
  ➤ Q&A
  ➤ Contact
	❖ Sports
	  ➤ Q&A
	  ➤ Contact
	❖ Events
	  ➤ Q&A
	  ➤ Contact
	❖ Contacts
	  ➤ Q&A
	  ➤ Contact
	❖ Organisations
	❖ Site Map
	❖ Searching
	  ➤ Q&A
	  ➤ Contact
	❖ Updating

**A full list of parks in the database system follows:

Abbey Recreation Ground, All Saints Recreation Ground, Bennets Hole, Beverley Meads, Commons Extension, Cannizaro Park, Cannon Hill Common, Cherry Wood, Church Lane Playing Fields, Colliers Wood Recreation Ground, Cottenham Park, Cranmer Green, Cricket Green, Drax Playing Fields, Donnelly Green, Dundonald Recreation Ground, Durnsford Recreation Ground, Edenvale Open Space, Fair Green, Figges Marsh, Fishponds Wood, Garfield Recreation Ground, Haydons Road Recreation Ground, Holland Gardens, John Innes Park, John Innes Recreation Ground, Joseph Hood Recreation Ground, Kendor Gardens, King Georges Playing Fields, Lavender Park, Lewis Road Recreation Ground, Long Bolstead Recreation Ground, London Road Playing Fields, Lynmouth Gardens, Merton Green Walks, Miles Road Playing Fields, Mitcham Common, Mitcham Sports Ground, Morden Park, Morden Recreation Ground, Moreton Green, Mostyn Gardens, Myrna Close, Nelson Gardens, Nursery Road Playing Fields, Oakleigh Way Recreation Ground, Pollards Hill Recreation Ground, Ravensbury Park, Raynes Park Sports Ground, Riverside Walk, Rock Terrace Recreation Ground, Rowan Road Recreation Ground, South Park Gardens, Sherwood Recreation Ground, Sir Joseph Hood Memorial, Tamworth Recreation Ground, The Canons, Three Kings Piece, Wandle Meadow Nature Park, Wandle Park, Wimbledon Park.

4. <u>Extending the Site</u>

4.1. New Information

Should Leisure Services decide that they wish to extend the kinds of information on the website or add services, the following processes are recommended.

To add new topics of content, such as information regarding nature conservation, a new section could be created, with its own topics and items, or one of the existing sections could be added to. For instance, if information on preservation of species around Merton's parks and open spaces is to be added to the website, a new topic "Nature Conservation", could be added to the "Nature" section.

In order to advertise these new parts on the website, an announcement could be made on the site's home page. Additionally, the new topic could be mentioned in the text its parent-section's main page. One further suggestion is that if the website is linked to by other websites which deal with the added type of material, such networking can help to gain attention and increase usage of the new services and information on the site.

4.2. New Services

Should Leisure Services desire the website to have new services, such as additional searching capabilities or new data structures such as those required for an interactive map-location system, the PHP scripting in the site will have to be modified. The code for the website has been documented to explain, along with PHP & MySQL's documentation how all of it works. Given this, it would be possible to follow the example of what is in the code as well as the documentation for MySQL and PHP in order to provide additional functionality for the website. Alternatively, Leisure Services could opt to have the entire site re-written in another language and add further functionality in the process.

4.3. Ensuring Search Engine Friendliness

As mentioned in section 5.2, there are two key ways to make a site get good hits with search engines. One of these ways is to use the right HTML structures in order to help search engines determine which content on a page is most important. As new pages are added to the site, the guidelines for good HTML structuring as such should be kept in mind. This effort can be aided by making new templates that specify the format for a new page and include all of the HTML code needed to ensure search engine friendliness.

Appendix CC: Website Template Images

Figure 1: Home Page
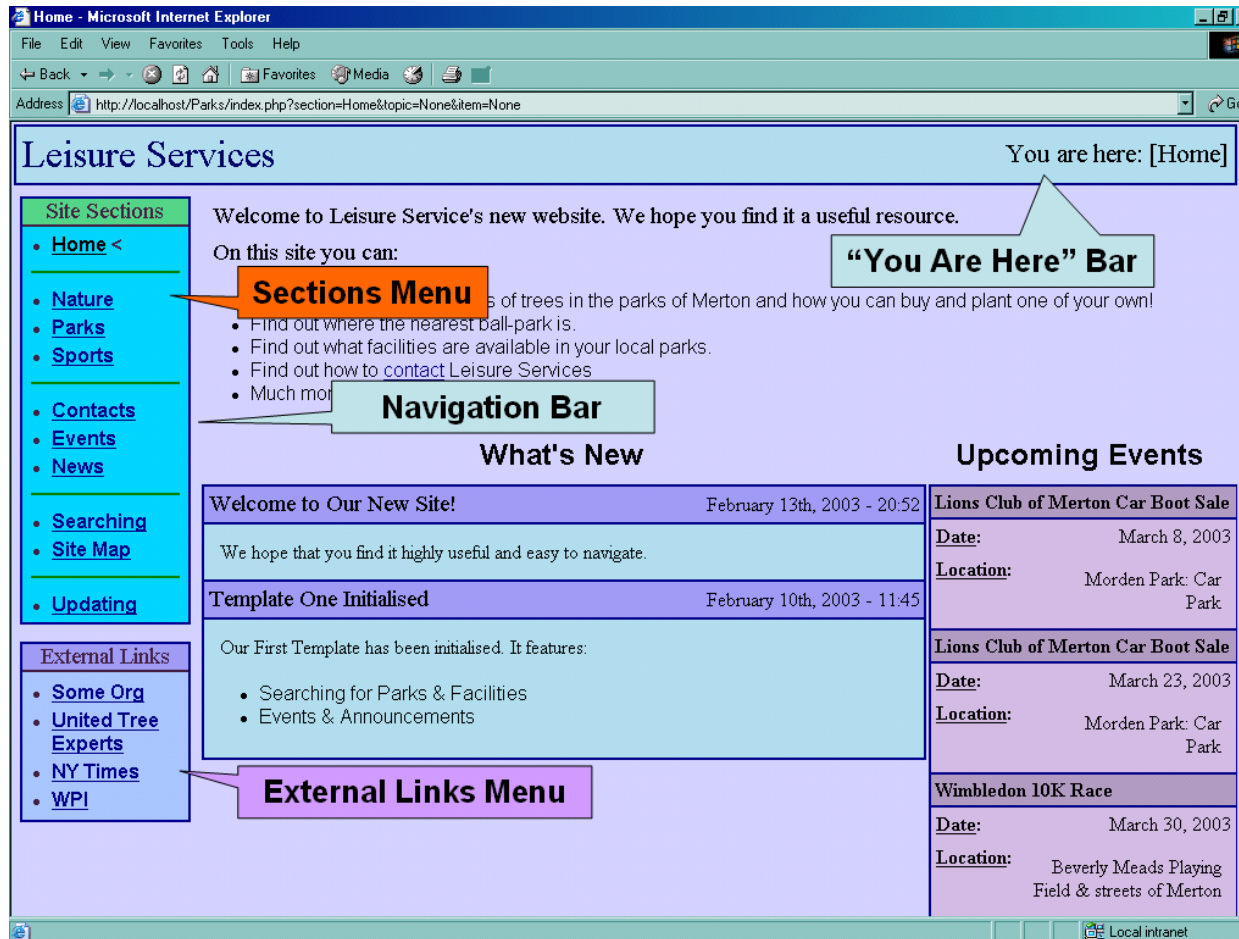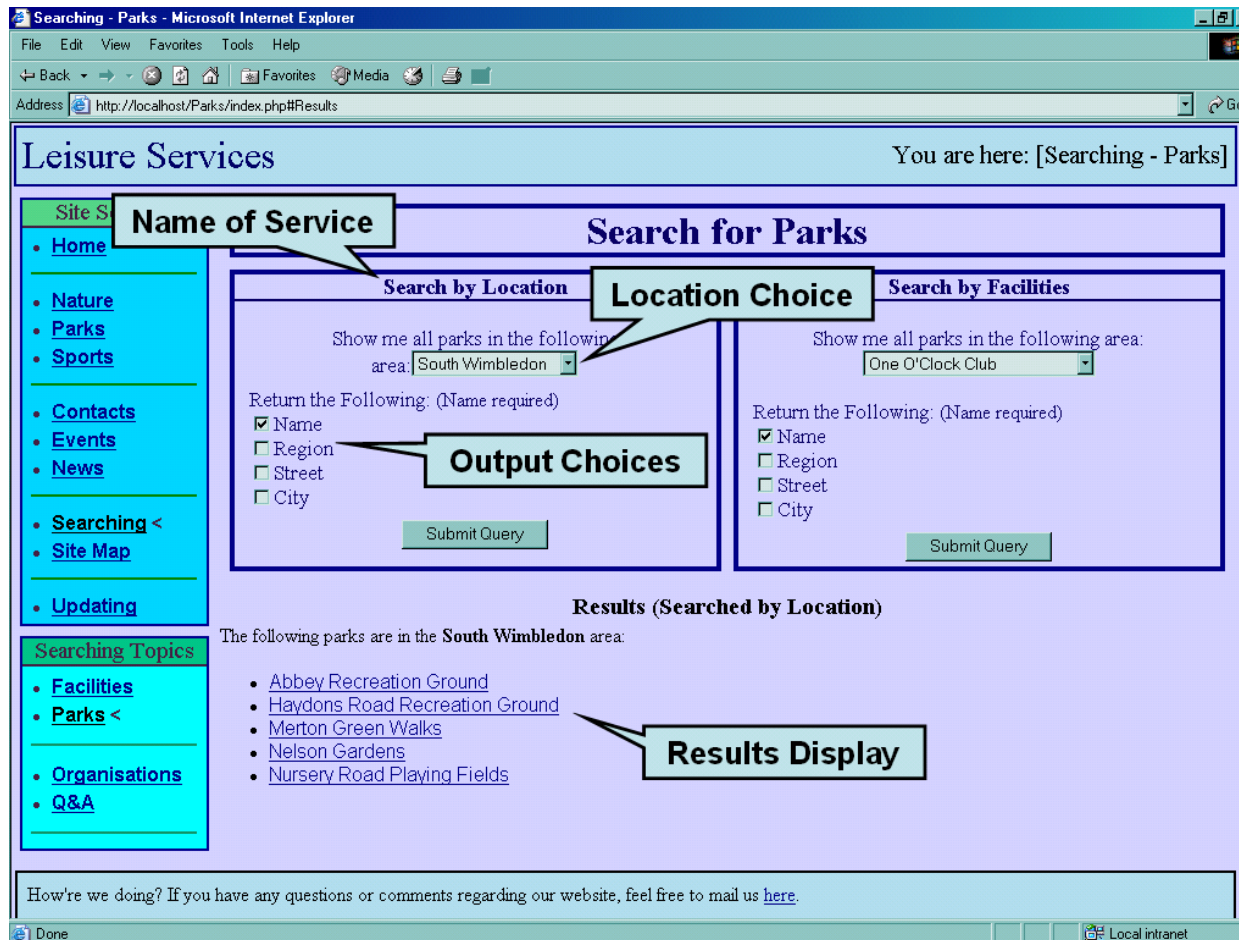
Figure 2: Searching Service Example
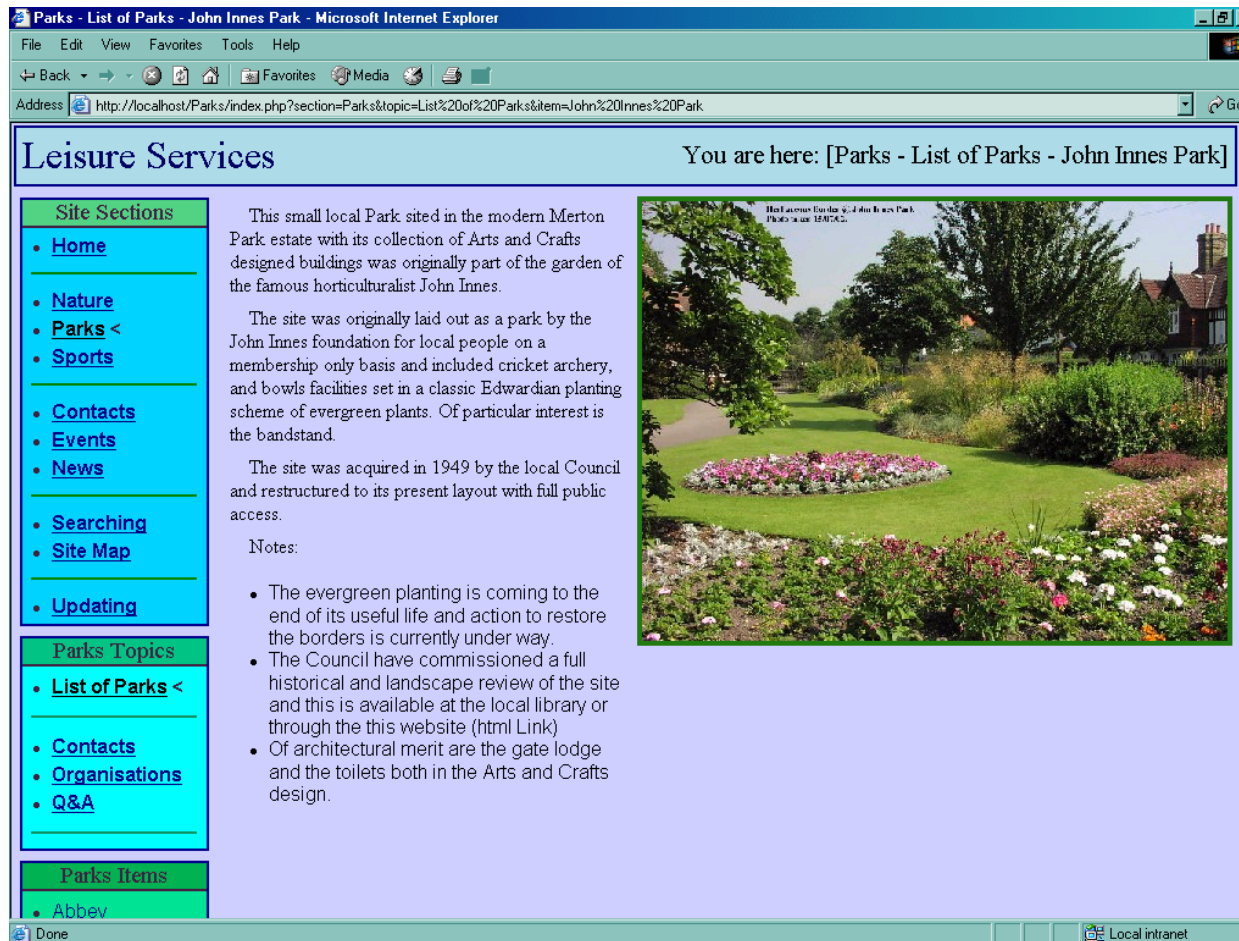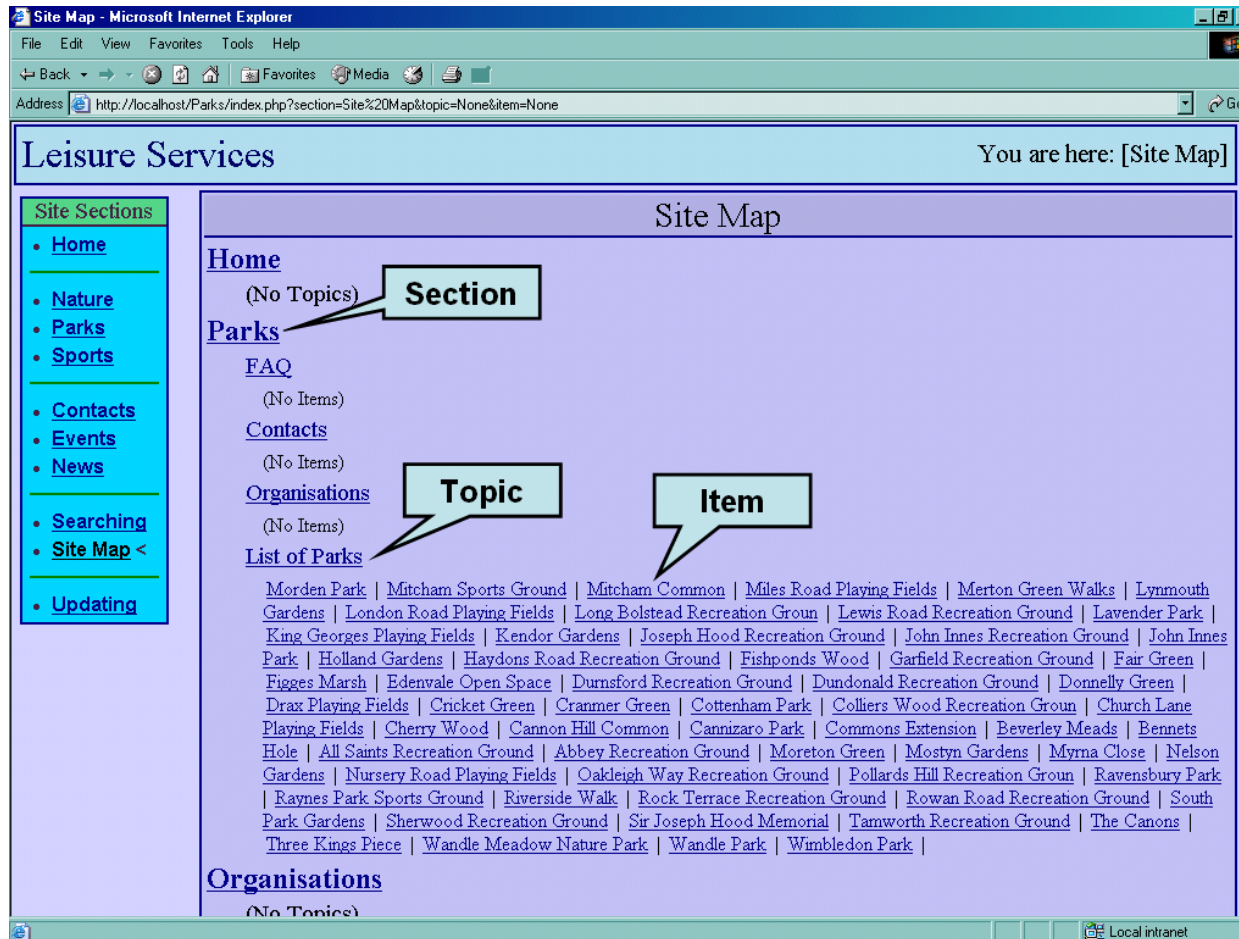
Figure 3: Park Page Example
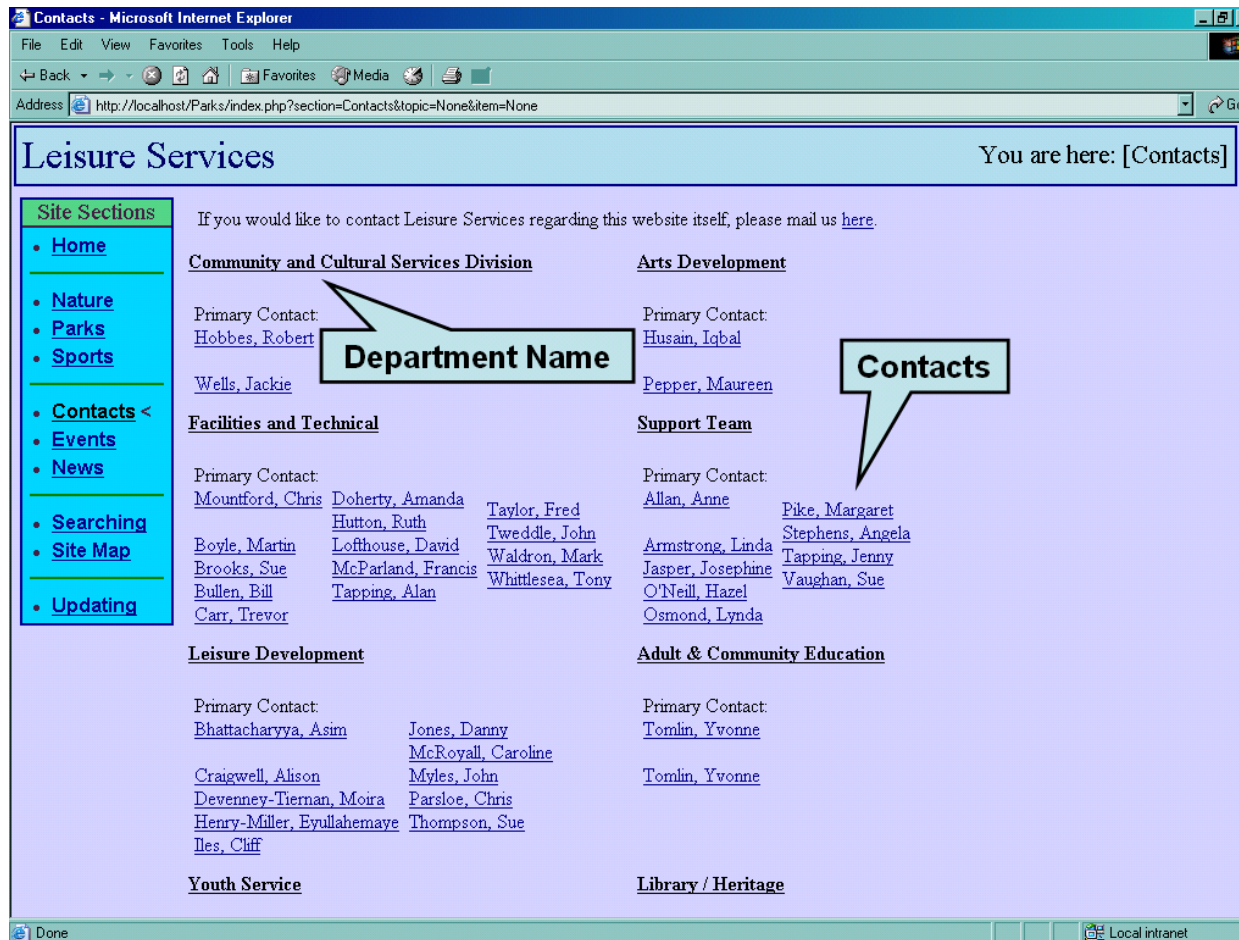
Figure 4: Site Map

Figure 5: Contacts Page

Figure 6: Updating Page