John Grooms – Web Site Redesign

Project Number: 50-RWT-JG99 CM

An Interactive Qualifying Project
Submitted to the Faculty of
Worcester Polytechnic Institute
In partial fulfillment of the requirements for the
Degree of Bachelor of Science

5 May 1999

Brian T. Carelli

Cheryl K. Eddins

James A. Keenan

Approved:

Professor Robert W. Thompson,
Major Advisor

Professor Douglas W. Woods,
Co-Advisor

Abstract

John Grooms is a non-profit organisation that provides a wide range of services for disabled people, such as job training and employment, rehabilitation services, holiday accommodations, and wheelchair standard housing. The goal of this project was to redesign John Grooms' previous web site in order to increase public awareness, encourage financial support of the organisation through secured online donations, and allow disabled people and their families to learn more about the resources available to them through John Grooms.

In order to assure that the redesigned web site effectively represented John Grooms, we conducted focus group sessions with the directors and primary managers of the organisation. The web site was then redesigned with this feedback in mind. Once a working version of the web site had been created, the redesigned site was evaluated by the staff at John Grooms as well as a sample of the organisation's disabled clientele. Modifications were made to the web site based on their recommendations. Upon completion of the web site redesign process, staff members were briefed on updating the web site and a web site-authoring manual was developed as an archival record for future modifications.

Acknowledgements

This project was completed through the help and support of several people. We wish to sincerely thank all of the directors, managers, and staff at John Grooms who generously gave of their time to provide the necessary feedback and resources to redesign John Grooms' web site. In particular, we would like to especially thank Beth Arnold, Karin Weighton, and Sally Ross who all worked very closely with us on this project. Sincere appreciation also goes out to the International Global Studies Department at WPI and Jennie Hawks, the project coordinator, for providing us with the opportunity to complete this project with John Grooms in London. Finally, we would like to acknowledge our appreciation for the time, effort, and dedication that we received from our faculty advisors, Professors Robert Thompson and Douglas Woods.

Table of Contents

Executive Summary

John Grooms is a non-profit organisation located in London, England. The primary goal of the organisation is to help those who are disabled maintain their independence and improve their quality of life, which is pursued in many ways. John Grooms contains two separate sister organisations, the Charity and the Housing Association. John Grooms Charity provides a wide range of services for disabled people, such as job training and employment, rehabilitation services, and holiday accommodations. The role of John Grooms Housing Association is to design, develop, and manage wheelchair standard housing. Both of these organisations within John Grooms share the common goal of working to improve the quality and quantity of the services available to people with disabilities and their families. In order to keep up with technological advancements as well as the increasing Internet use by the public and corporate sector, it was necessary for John Grooms to be represented effectively on the Web. The goal of this project was to redesign John Grooms' previous web site in order to make it more informative, easier to navigate, and most importantly, raise public awareness of John Grooms as a resource for disabled people and their families. In addition, the redesigned web site had to attract donors by providing the facilities for secured online donations.

In order to design a web site that effectively represented all aspects of John Grooms, input was obtained from members of the organisation prior to the commencement of any web site development. These members represented all departments within John Grooms' Head Office and several regional offices. This was done to ensure that the redesigned web site incorporated all subdivisions and each could be represented accurately. In a broad sense, both the Charity division and the Housing Association division had to be represented as well as their respective departments. Six focus group sessions were conducted, each consisting of three to five directors and primary managers within the organisation. As a supplement to the focus groups that were conducted, individual interviews were conducted with the six managers of sites apart from those at the Head Office. Representatives from each of these locations outside of John Grooms' Head Office were interviewed either over the phone or in person so that their feedback could be obtained. These interviews included the four regional managers as well as the managers from HOPE Nursery and

Grooms Holidays. The qualitative results generated from each of the focus groups sessions and interviews were analysed and subsequently served as a guideline during the web site redesign process.

During the focus group sessions and supplementary interviews, the intended audience of the web site and the specific goals of the web site were discussed. The results from these discussions revealed that the target audience for John Grooms' web site encompassed a broad spectrum of the public. Specifically, the intended audience was perceived as including disabled people, their friends, families, and care-givers, potential and current donors, as well as corporate and charity partners. The primary goals of revising the web site were identified as the following: (1) increase public awareness of John Grooms, (2) encourage financial support of the organisation through secured online donations, and (3) allow disabled people and their families to learn more about the resources available to them through John Grooms.

Once a working version of the redesigned web site had been completed, the site was evaluated by both the staff and clientele at John Grooms. The primary managers and directors who were involved in the initial focus group sessions evaluated the site for the accuracy of the content and overall aesthetic appeal. A sample of disabled clientele reviewed the site to ensure the navigation of the web site was easy and relevant information was available. The results from the evaluation were analysed and modifications to the web site were then implemented accordingly. Upon completion of the web site redesign, staff members from the Publications Department were briefed on updating the web site and a web site-authoring manual was developed as an archival record for future modifications.

John Grooms' new web site effectively represents the organisation on the Internet. The John Grooms web site encompasses both the multi-faceted Charity as well as the John Grooms Housing Association. In addition, the web site was designed to promote usability and encourage people to revisit the site frequently. This was accomplished through the use of modern web design techniques so that the web site is now truly a reflection of John Grooms' corporate image.

Introduction

John Grooms is a non-profit organisation located in London, England. The primary goal of the organisation is to help those who are disabled maintain their independence and improve their quality of life, which is pursued in many ways. John Grooms currently employs between 500 and 600 people at its head office in London and at the twelve other facilities that the organisation directs. John Grooms is divided into two separate sister organisations, the Charity and the Housing Association. John Grooms Charity provides a wide range of services for disabled people, such as job training and employment, rehabilitation services, and holiday accommodations. The role of John Grooms Housing Association is to design, develop and manage handicap-accessible housing. Both of these organisations within John Grooms share the common goal of working to improve the quality and quantity of the services available to people with disabilities and their families. In order to keep up with technological advancements as well as the increasing Internet use by the public and corporate sector, it was necessary for John Grooms to be represented effectively on the Web.

The organisation planned to re-evaluate and restructure their current web site[1] in order to raise public awareness of John Grooms and inform disabled people of the services available to them. This process entailed identifying the goals and objectives of the web site as well as considering the intended audience. More specifically, the web site was redesigned in a manner which facilitated usage by people with varying types and severities of disabilities. In this project, our goals were to identify the Charity and Housing Association's intended audience and redesign the organisation's previous web site in order to make it more informative, easier to navigate, and most importantly, raise John Grooms' profile as a resource for disabled people.

Throughout the redesign process, the staff and clientele of John Grooms evaluated the web site. Not only were the actual contents of the web site evaluated, but the accessibility was considered as well. As many users as possible, regardless of the nature or severity of their disability, are now able to navigate through the entire site and access all of the resources available at the site. In order to accommodate those Internet users with disabilities, specific accessibility guidelines were adhered to

[1] Refer to Appendix B

during web site design. The challenge in successfully accomplishing this redesign task was establishing a balance between accessibility and aesthetics.

John Grooms' new web site effectively represents the organisation on the Internet. The John Grooms web site encompasses both the multi-faceted Charity as well as the John Grooms Housing Association. In addition, the web site was designed to promote usability and encourage people to revisit the site frequently. This was accomplished through the use of modern web design techniques so that the web site is now truly a reflection of John Grooms' corporate image.

The Internet is a technological advancement that has evolved extensively over the past decade. Yet, at the same time, a majority of web sites remain inaccessible to many of those with disabilities. Our project addressed this issue by evaluating John Grooms' former web site and restructuring it in such a manner so as to facilitate access by those with disabilities. However, the essence of our project involved increasing public awareness of John Grooms through their redesigned web site. The web site will increase public awareness, encourage financial support of the organisation through secured online donations, and allow disabled people and their families to learn more about the resources available to them. Promoting support of charitable organisations will lead to a shift in resources to the people who need them.

Literature Review

I. Overview

John Grooms is an organisation that provides many services and resources to those with disabilities. The goal of this project was to redesign John Grooms' previous web site in order to make it more informative, easier to navigate, and most importantly, promote public awareness of John Grooms as an organisation which provides resources for disabled people. In addition, the new web site attracts donors by facilitating secured online donations. In preparation for this project, several research topics had to be pursued, all of which are presented in this literature review. The Internet and its evolution over the past decade were studied as general background research. Next, research was carried out concerning the current disability acts established in both the United States and the United Kingdom. This enabled us to

consider the legal aspects of designing a web site, especially for an organisation providing services for those with disabilities.

In order to design a web site that is sensitive to disabled users, accessibility guidelines must be outlined and observed. Current guidelines for a universal design that would promote access to those with disabilities are also discussed in detail. Technologies currently available to disabled people to aid in web site navigation were researched in the literature as well. Therefore, our web site was designed in a manner to facilitate usage by these technologies. In addition, an instructional overview of web site design is provided, including information on secured server payments. This web authoring section of the literature review provides the fundamental tools for creating a web site. This literature review provided the background information necessary for successful completion of our project objectives.

II. Accessibility - A Growing Concern

There are people throughout the world who live with debilitating conditions. Both the nature and severity of their disabilities vary. In response, hundreds of organisations have been established in many countries to provide support and services to those living with disabilities. The Internet has web sites developed by many of these organisations to better serve those in need of their assistance. During the design process, the accessibility of web sites has to be considered in terms of the target audience. Yet, many of the sites currently on the Web were not designed with disabled users in mind. As a result, web accessibility is a growing concern among those living with disabilities and people who are working to help them. Advocates of web accessibility are quick to point out that design modifications that are made now will not only greatly benefit those who are currently disabled, but also those who develop disabilities in the future (Kautzman, 1998). According to the U.S Census Bureau, 29.2 percent of adults aged 45-64 currently have disabilities. This percentage increases to 63.7 percent for adults aged 75-84. As today's Internet-dependent generations become older and many inevitably begin to develop visual and auditory impairments, the issue of web accessibility will be of critical importance. Therefore, in response to the current concerns, as well as in anticipation of those in the future, Internet accessibility is being addressed (Kautzman, 1998). Mayer Max, a spokesperson for the National Security Agency's SHARK (Superhighway Human

Access to Resources and Knowledge), comments, "It's not a question of how many people are in the disability community; it's a question of when you join it" (qtd. in Bellinger, 1995, p.78).

III. History of the Internet

The Internet has existed in one form or another for a period of over 40 years. It was first developed by the United States military as a "system that would assure the reliability of the U.S. command and control systems in the event of nuclear war" (Gilder, 1997, p.107). Eventually, the technology that drove the first version of the Internet found its way into many different colleges and universities. As networks began to be developed there was a need to connect them together in a uniform way. Computer scientists began linking networks together to include features such as email and newsgroups. These features quickly became popular with a large number of computer users. As computers and modems became faster, the time it took to send and receive information decreased. As a result, the Internet gained the ability to display larger amounts of text, pictures, and video clips (Gilder, 1997).

Throughout the course of the Internet's rapid growth, web designers have inadvertently decreased the level of web accessibility for disabled users. Initially, computer programs, including Internet applications, were run through DOS, which involved text-based commands and mainly supported text-based software. Since the advent of Macintosh operating systems and Microsoft Windows, there has been a dramatic shift towards graphics-based programs rather than text (Kautzman, 1998). For many people with disabilities, especially visual disabilities, experts say this poses an overwhelming challenge. In most cases, the graphics are not supplemented by descriptive text, thus making it virtually impossible for web navigation by those with visual impairments. Designing web sites that are not accessible by all users may also result in certain legal repercussions.

IV. Legal Aspects

In recent years, extensive research has been published on the issue of web accessibility. The problem researchers find with Internet accessibility is not necessarily implementing modifications to the current technology, but rather the difficulty lies in raising awareness among web site developers (Bellinger, 1995).

Quite simply, some designers are not even aware of the fact that people with disabilities are trying to access their web sites (Bellinger, 1995). Legally, many companies and organisations may soon be running into problems concerning the accessibility of their web sites. The Americans with Disabilities Act (S.933) signed into law in 1990 and the Telecommunications Act (H.R.727) both require that the Internet be accessible to those with disabilities (Kautzman, 1998). In her article, "Virtuous, Virtual Access: Making Web Pages Accessible to People with Disabilities," Kautzman speculates that it is only a matter of time before the Internet is challenged for its accessibility. Geoff Freed, director of WebAccess (a non-profit organisation based in Boston) believes that the ADA will only truly be tested when a legal suit is filed against a web site developer because it is not accessible to people with certain disabilities (Moeller, 1998). Though the United States has taken a leadership role with the ADA, it is not the only country to be making strides in assuring fair treatment for disabled people.

The following section is primarily drawn from the Disability Discrimination Act's *Policy and Practice Guide for Local Governments by Disabled People* (1997). The British Government has been behind the United States in its efforts to give disabled people equal rights. Other than the Disabled Persons (Employment) Act of 1944 (c.10), there had been no meaningful laws written to help people with disabilities in the United Kingdom. The first piece of legislation since 1944 to be debated by parliament was not submitted until 1982, but it was not approved. After another fourteen attempts over the next twelve years, the government finally introduced the Disability Discrimination Bill. A weakened version of the bill was passed two years later and it still remains the benchmark by which the United Kingdom handles disability issues (Disability Discrimination Act, 1997).

Much of the Disability Discrimination Act's (c.50) rules and regulations are left up to the interpretation of individual employers and employees. This is a side effect of the DDA not using definitive language, specifically the use of vague terms such as *reasonable*, *substantial*, and *justified;* thus leaving employers and those in charge of places with public access to decide what is acceptable (Disability Discrimination Act, 1997).

Disability activist groups have criticised the DDA for several reasons. The first and probably most hotly debated topic was that discrimination was legal in

several circumstances. Disabled people fear that the government has created a loophole which employers can use to avoid hiring qualified disabled people. Advocates of the bill argue that it makes reasonable sense that people with certain disabilities are not able to be fire fighters, patrol men, prison officers, or members of the armed services. This loophole has caused debate over numerous other occupations as to whether disabled people could handle what would be asked of them (Disability Discrimination Act, 1997).

A second problem with the Disability Discrimination Act is that there is no enforcement commission yet established to try cases or to monitor the overall effect of the Act. Parliament does plan to correct this in upcoming years, but no timetable was established in the DDA, so it could be decades before an agency is setup to handle the enforcement of the Act (Disability Discrimination Act, 1997).

The most relevant issue concerning our project with John Grooms is the right "not to be discriminated against in the provision of goods, facilities, and services" (Disability Discrimination Act, 1997). One example of services in the DDA includes "access to and use of communication or information services," which the new John Grooms web site was required to provide (Disability Discrimination Act, 1997). Moreover, the John Grooms web site provides services such as free information and resources, while raising awareness of the needs disabled people have. With this in mind, we were required by law to make the web site accessible to all potential users.

V. User Accessibility

While the World Wide Web has made large amounts of information available to people all over the world, many people with disabilities are unable to obtain this information. In making the Internet more accessible to disabled users it is necessary to consider a broad spectrum of different disabilities and the varying degrees of severity within each. In fact, there are currently several web sites available on the Internet, which address accessible web design. One site in particular provides insight into four major categories of disabilities, including visual, auditory, motor, and cognitive disabilities. Nielsen discusses the difficulties that disabled people have in accessing web information and provides suggestions for web designers (Nielsen, 1996).

Due to increasing technological advances such as increased modem and processor speeds, as well as higher resolution monitors, the Internet has changed from a mostly text-based medium to a more visual-based one. This has made the Internet more difficult for people with some disabilities to use. For example, people with visual disabilities who are unable to read words on standard computer screens will often use a tool called a text-to-speech converter. This device takes text from the computer screen and literally reads it back to the user. When the Internet was mostly text-based this meant that visually impaired people would have access to nearly all of the information available over the Internet. They would be able to navigate through web pages and obtain results as easily as other people without disabilities. "The problem is that images are often improperly supported by descriptive text, which does not allow entry to visitors who do not know where to double-click" (Kautzman, 1998, p.42).

However, as the technology that drives the Internet increases, more text is being replaced by graphics. As a result, the Internet now uses more graphical methods such as JavaScript to allow the user to navigate through pages. JavaScript is a programming language used to create web pages that often makes use of colourful graphics and typically requires that the person use a mouse to navigate through web sites. While this may not pose a problem for a person with normal sight, to the visually impaired it can make the web site difficult to access. To date, screen readers are unable to interpret JavaScript, thus making a page written in this language completely useless to a person with a sight disability (Nielsen, 1996). In addition to text-to-speech converters, another tool that makes the Internet accessible to the visually impaired is the Braille reader. A Braille reader converts words and text from the screen to Braille on a panel near a visually impaired user's keyboard, which the person can then read. The Braille reader faces the same difficulties as the speech-to-text converter because it is also unable to convert JavaScript to text (Nielsen, 1996).

According to Nielsen (1996), another problem concerning web accessibility is that many web pages now contain a tool called forms. Forms allow users to fill out information about themselves and then send this information to the person or business that runs the web page. Forms are being used more and more frequently for carrying out on-line commerce, which in turn has changed the way that many people purchase goods. Forms require that the person filling them out be able to use a mouse to click

on the screen. People with physical disabilities, such as multiple sclerosis, often do not have the motor skills to use such devices, therefore, encountering great difficulties when filling out forms (Nielsen, 1996). Also, text-to-speech and Braille converters are unable to translate forms for people with visual disabilities. Nielsen's solution to this problem is to have the web page designer make available a printable version of the form so that the visually impaired user can fill it out in a more accessible format (e.g from a Braille form) and then send the completed form via regular mail. However, most web developers do not consider making this option available (Nielsen, 1996).

One of the controversies that web page makers now face is the debate on whether to make web pages attractive (and possibly even easier to use) for average users, or to make them accessible for disabled users. One of the reasons why the Internet has become so universally popular is because of programs (such as JavaScript) that have made the Internet easier and more enjoyable to use than the earlier text-driven era. A typical user may often prefer the look and feel of a web page that has colourful pictures as opposed to text, which is in direct contrast to the needs of those with disabilities. For this reason, web designers typically overlook the needs of disabled users and cater to the preferences of non-disabled users (Nielsen, 1996).

Users with sight disabilities are not the only ones who may suffer from not being able to properly navigate the web. People who have motor skill disabilities often will have trouble using a mouse. Many web sights now use a device called an image map as a means of navigating through a site. Essentially, image maps are pictures on which the user must use the mouse to point and click. Different areas of the picture move the user to different places in the site. If the web page author creates "image maps that require extremely precise mouse positioning," a user with motor skill problems will be completely unable to use that web site (Nielsen, 1996).

Until recently, users with hearing problems were able to navigate through the web with few or no limitations. However, as modem and network speeds have increased the Internet now uses increasing amounts of video and audio clips, including streaming video (video that is displayed live on the Internet). Web users with auditory disabilities cannot understand the audio portion of these clips, and if a transcript is not included, the clips become almost useless to these users. One

technology that is currently under development is including closed captioning in video clips and also in streaming video. Nonetheless, until this technology is developed the hearing impaired will not be able to understand many of the pages containing these devices (Nielsen, 1996).

Spatial reasoning skills and short-term memory capacity are other types of disabilities that must be considered in web site design. Either of these cognitive disabilities tends to make it difficult for users to navigate the Web. According to Nielsen (1996), "programmers and graphic designers tend to get uncommonly high scores on tests of spatial reasoning skill and are therefore good at visualising the structure of a Web site." However, other users, especially those with spatial reasoning disabilities, will often have great difficulty understanding the structure of a web site and lack an understanding of how to get where they would like to go on it. Devices such as site maps, which provide the user with a link to every page on a site in a clear and organised manner, are a great help to people with such a disability (Nielsen, 1996).

VI. Universal Design

Although it is arguable whether or not there is a universal web site design, one expert claims that such a design does in fact exist (Bellinger, 1995). This type of design has built-in accessibility, rather than being marketed specifically for disabled users. In the pursuit of developing a universal design for web sites, agencies such as Web Accessibility Initiative International have created guidelines to promote accessibility for disabled users (Kautzman, 1998). These guidelines provide descriptions of the various aspects of web design and ways to make them more accessible. The first of these aspects is the layout of the web site. Above all, experts insist that the design should be simple and clean. There should be a logical layout with information presented according to priority. Specifically, the most important information should be positioned at the top of the pages, whereas the least important information should be located toward the bottom. This means that main subject headings are positioned at the top of the screen, followed by sub-headings and general text towards the bottom. This technique especially aids visually disabled people who navigate the web through the use of screen readers. Those with cognitive disabilities also appreciate simple, logical web designs (Kautzman, 1998). When considering

layout, consistency is another critical aspect for designing a web site accessible to those with disabilities. For example, logos should always be positioned in the same location throughout the web site (Kautzman, 1998).

In addition to a simple, uncluttered layout, it is important to consider the colour scheme of the site. The use of contrasting colours is essential for an accessible web site. In addition, backgrounds should be simple and non-distractive. Complex background wallpapers divert attention away from the resources available at the site. During the designing process, colour-blind users should be considered as well. In her article, Kautzman (1998) recommends trying out the web site with both a colour and black and white monitor.

According to Kautzman (1998), when designing links to other web pages, it is recommended that large icons be used so that mobility impaired users can still easily navigate through the site. Images on the web site should include supplementary descriptive text. Users who access the web through the use of screen and Braille readers require this accompanying text. Otherwise, navigation through the web site is virtually impossible because the links essentially appear to be invisible to visually impaired users. Rather than incorporating links directly into the text (where users may have difficulty recognising them) it is recommended that links be listed separately from the body of the text (Kautzman, 1998).

Screen readers are not able to identify image maps. As a result, web designers recommend that alternative text-only pages be provided along with the image map. The descriptive text that accompanies an image should not just physically describe the image itself, but rather explain the function or destination of the link. For all web sites that contain links, navigation between web pages should be simple and straightforward. Disabled users, particularly those with cognitive disabilities, should have a sense of the overall path of the information and their current location within the web site (Kautzman, 1998).

According to the guidelines for web accessibility, forms pose a difficulty because screen readers cannot effectively communicate the information to the web users. Therefore, all forms should have the capability of being downloaded and printed out. Tables pose the same problem, as screen readers are designed to read from left to right and from top to bottom of the page. In addition, columns and frames

should also be avoided unless textual information can be supplemented in a fashion to support screen readers (Kautzman, 1998).

Finally, web sites should be developed using standard HTML (Hypertext Markup Language.) This format will enable the web site to be accessible from a majority of Internet browsers (Kautzman, 1998).

Kautzman states that if a universal web design is to be standardised, the format must incorporate a simple, well-organised layout design with supplementary text. It should also exclude columns, tables, and frames (Kautzman, 1998).

VII. Case Studies

Despite the best efforts of many web page designers, most sites are difficult to follow for even those without disabilities. In tests run by User Interface Engineering, sites such as Fidelity Investments, Travelocity, and Disney received poor ratings for the accessibility of their web pages, despite the substantial financial investment in the designs of these sites. In these tests, most volunteers could not find the desired information at these web sites because the sites were too cluttered or were just poorly organised (Radosevich, 1997).

One of the key reasons for this problem is that businesses design their sites with the company in mind rather than the consumer. Radosevich (1997) believes this is the result of site designers being more interested in pleasing their bosses than the viewing public. This focus tends to limit easy navigation solely to those who know a lot about the company's web site, while people not familiar with the web site will struggle to find information they are looking for. For example, if someone is looking for a FAQ (Frequently Asked Question) which has information about a product the company sells, but the company wants to promote other products on their web site, the consumer may find it very difficult to locate the link to the FAQ. In fact, there is the added problem that if the FAQ is actually found, it may not contain the answers to the specific question being asked. This was the case in the previously mentioned test by User Interface Engineering (Radosevich, 1997).

Some companies are trying to rectify this problem by testing their web sites on people that don't frequently use the web, a technique which is considered a very cost-effective and simple way to make sure that the design works as it was intended. As of the beginning of 1998, only twenty percent of the Fortune 1000 companies actually

used this test and only fifty percent are expected to by the year 2000 (Radosevich, 1997).

Other concerns that have been found through the testing of web sites include designers' remembering download speed, saving extra money for updating, and description of text links. Many companies forget that those accessing their web site are probably only using 28.8Kbps to 33.6Kbps modems which take longer to download information than the much faster connections employees and designers are using. This is critical because the more pictures and designs on a web site, the longer each page takes to download and the more frustrated the web viewer becomes. According to Nielsen, "usability research shows that page download has to be faster than 10 seconds for users to keep their attention on the site" (qtd. in Radosevich, 1997).

Most people that set up web sites believe that the start up cost is the only cost to keep in mind, but according to Radosevich that simply isn't the case. Money must also be set aside for continually updating information, especially if one is going to have a "modern web site" or have links to other sites with changing information. Disney found this out when they spent $10 million on their initial site but have spent more than that just updating it (Radosevich, 1997).

Another critical feature that researchers discovered was that users find long, descriptive text links easier to follow for the simple reason that they have a better idea of what is on that page. Oftentimes when a link only contains one to three words of descriptive text and users click on it, that page does not contain information relevant to what the user expected. These users won't think highly of a site if they believe it is wasting their time, and are therefore less prone to revisit the web site in the future (Radosevich, 1997).

Nielsen believes there are some things that web page designers should avoid. The first problem is using frames, a technique which divides a web page into separate sections, each acting as its own page. Frames can be helpful, but he believes they can get too confusing at times and cause a major slowdown for accessing a web page. Using too much of the most recent technology can also be a critical error according to Nielsen. Features such as scrolling text bars and constantly running animation on a web page may look interesting, but they distract the viewer and make reading the text on the page difficult. Having outdated information or text links (orphan pages) is

another problem to avoid. Lastly, Nielsen believes that web site developers should keep the standard link format consisting of underscored blue text. If the page uses other methods for text links, such as pink text with no underscore, some people will have a hard time recognising it as a link (Radosevich, 1997). The accessibility to these sites should be considered for those with disabilities, along with these issues of usability for an average web user.

In recent years, web site usability and accessibility have been studied extensively. Yet, despite the research that has been done, experts estimate that over 90 percent of all web sites still remain non-accessible to those with physical or cognitive disabilities (Moeller, 1998). "Bobby," a program created by the Center for Applied Special Technology (CAST), is an example of this type of service. This program tests web sites for the accessibility features as outlined in the World Wide Web Consortium's Web Accessibility Guidelines for Page Authoring (Kautzman, 1998). This consortium has current standards for web designers to follow, yet since it is not a requirement by law to follow these guidelines, it is up to the discretion of the designer as to whether or not to follow them.

VIII. Qualitative Research Methods

In addition to creating accessible web sites, it is also important to consider the resources on the Web that are available for people with disabilities. Many non-profit agencies have established web sites designed specifically for people with disabilities. Goodwill Industries[2] (*www.goodwill.org*) is an example of such organisations. This site includes information about the various services that the agency provides and serves as a resource for those with disabilities. Disabled users have access to chat rooms, news groups, and listings of events in their community. This web site also facilitates volunteer registration and online donations. Yet, there are still many resources that remain inaccessible to disabled users. In order to design web sites with the necessary resources available, user feedback must be acquired. The information currently available must be evaluated and suggestions for additional resources also must be obtained. Due to the descriptive nature of the data, qualitative research methods are most useful. By definition, qualitative research "refers to the meanings,

[2] Refer to Appendix C for Goodwill Industries' main home page (as of February 21, 1999)

concepts, definitions, characteristics, metaphors, symbols, and descriptions of things" (Berg, 1998, p.3). The feedback generated from this type of study would inherently consist of human perspectives as the primary source of data. Respondents in the survey integrate their own personal experiences into their responses. For example, the respondents' lifestyles and interests would be reflected in the type of resources that they would find helpful on the Web.

Evaluations can be designed using either qualitative or quantitative research methods. Quantitative methods typically employ standardised questions, whereas open-ended questions are characteristic of qualitative research tactics. The data generated from each of these methods is very different. Data collected from standardised questionnaires are usually organised into specific predetermined categories. Numerical values are then assigned to the response categories so that the results can be analysed and recorded (Patton, 1980). Therefore, quantitative research is extremely structured and researchers must often anticipate their expected results in order to predetermine appropriate response categories (Patton, 1980).

Qualitative research methods are a second approach to conducting evaluation surveys. Data collected from qualitative surveys have both depth and detail (Patton, 1980). Respondents provide detailed responses to the open-ended questions by integrating their own experiences into their comments. Researchers are able to gain an appreciation for the respondent's personal perspective without predetermining response categories for the questions. For this reason, Patton considers qualitative methods more humanistic and personal. The lack of a predetermined model enables respondents to express their ideas and opinions in their own words (Patton, 1980). The task of the researcher is to provide a survey framework, which will enable respondents to accurately represent their perspectives. Open-ended responses are usually extremely detailed and unique to the individual respondent. Due to this intrinsic characteristic, analysis is more complicated because responses are not standardised or systematic (Patton, 1980).

In his book, Patton (1980) considers the concept of breadth versus depth. Breadth is the amount of time, effort, and resources that researchers are willing to invest in their study. In return, this will determine the completeness, or depth, of their results. This "trade-off," as he termed it, exists not only between qualitative and quantitative research methods, but within qualitative methods as well. Sample size

exemplifies this concept (Patton, 1980). In many ways, the scope of the study can be defined in this way. In one case, extremely detailed responses from a small number of respondents will lead to a narrowly focused study. Yet, if more respondents are surveyed they can broaden the scope of the study by providing more insight. Essentially, the level of focus for an evaluation survey depends on the time and resources available to the researcher (Patton, 1980).

Another aspect of research that must be examined is sampling strategies. The four strategies that Berg discusses are simple random sampling, systematic sampling, stratified sampling, and purposeful sampling. The first of these sampling techniques, simple random sampling, involves randomly selecting respondents from a population. In simple random sampling, each member of the population has an equal chance of being selected as a respondent in the survey. Since the respondents were selected at random, they are considered to be an accurate cross-section of the population. Therefore, the data collected from a simple random sampling is expected to represent the target population (Berg, 1998).

Berg's second strategy, systematic sampling, involves drawing a sample from a larger population when a list of all members of the population is available. The sample is selected in a systematic fashion in which every nth member is selected as a respondent. For a given population, both the value of n and the starting point on the list must be randomly selected, otherwise bias will be introduced into the sampling (Berg, 1998).

In contrast to the previous sampling methods, stratified random sampling is a third method which involves dividing the population into sub-populations and then randomly sampling these strata individually. A particular sampling fraction is assigned to each stratum to ensure that the proportions represent the full population. Generally, stratified random sampling is used when a population is heterogeneous but can be separated into homogeneous subgroups. This sampling strategy ensures that all segments of a population are represented in the sample (Berg, 1998). In terms of the John Grooms project, this might involve dividing the population of web site users into those with and without disabilities and then analysing the two sets of responses. Another option for surveying John Grooms would involve strata consisting of clientele and staff members. This type of sampling strategy would ensure that the interests of the entire population were represented.

The fourth type of sampling Berg discusses is purposeful sampling. In order to carry out this type of sampling, researchers must have a general familiarity with the population being sampled and the variation that exists within the population. Researchers must use their knowledge of the population to select representative respondents. Typically, purposeful samples are selected after preliminary field investigations of the population. This type of sampling strategy is typically used if resources are limited (Berg, 1998).

Surveys can be conducted in several ways, depending on the information being sought. Personal interviews are one of the most common forms of gathering survey information from a respondent. According to Berg, interviews can be structured in one of three ways: standardised, unstandardised and semistandardised. On the one hand, standardised interviews consist of a series of carefully designed questions which are asked in an essentially controlled environment. It is assumed that all interviewed subjects imply the same meaning in the question (Berg, 1998). On the other hand, an unstandardised interview does not employ a series of pre-planned questions but rather involves a more interactive relationship between the interviewer and the respondent. The interviewer poses a few initial questions, but delves deeper into certain issues by generating more probing questions throughout the course of the interview (Berg, 1998). The third method of interviewing, the semistandardised interview, is a combination of the two previously described structures. In this type of interview, the interviewer can prepare several questions, which are typically asked systematically. However, semistandardised interviewers are allowed the freedom to digress, or spend time focusing on a few particular questions, at their discretion (Berg, 1998).

According to Patton, there are three qualitative interviewing approaches. These three interviewing structures are the informal conversational interview, the general interview guide approach, and the standardised open-ended interview, which are very similar to the ones suggested by Berg. Each method has its own strengths and weakness and serves its own purpose. Each approach varies in the degree to which the interview questions are predetermined (Patton, 1980). The informal conversational interview is similar to Berg's unstandardised method in that the interviewer relies entirely on the spontaneous generation of questions during the interview. There are no predetermined questions, but rather, a natural flow of

conversation between the interviewer and respondent. Patton comments that during an informal interview the respondents may not even realise they are being interviewed. However, the lack of consistency can be problematic during the data analysis process for this type of interviewing method (Patton, 1980).

The second type of interview that Patton describes is the general interview guide approach, which entails outlining general interview topics. The interviewer covers the outlined topics during the interview, but in no particular sequence. The outline serves as a basic checklist to ensure that the interviewer addresses all of the necessary topics in the interview. In this type of interview approach, the interviewer tries to obtain common information from each of the respondents, but does not employ a series of standardised questions to do so. Therefore, the interviewer is able to customise the phrasing of each question to the individual respondents (Patton, 1980).

The standardised open-ended interview is Patton's third approach, which is very similar to Berg's standardised interview, in which a set of predetermined questions is posed sequentially to the respondent. Each question is carefully worded so that each respondent is essentially asked the same question in the same exact manner. Flexibility is very limited in this standardised approach. This method is best employed when a large number of respondents are interviewed by a group of interviewers. Since this approach is extremely structured, there will be less variation between interviewers (and thus more consistency in the overall results), than if another interviewing approached were used (Patton, 1980).

According to Berg (1998), an alternative interview technique is the focus group. The focus group is an interviewing style that utilises informal discussion groups to gather qualitative data, particularly when time and resources are limited. The focus group is under the guidance of a facilitator who initiates discussion and encourages participation from all members of the group. Therefore, this moderator must prevent dominating respondents from controlling the conversation while encouraging passive respondents to voice their opinions, so that all perspectives are explored in the group discussion. Berg believes that a focus group can use brainstorming to carefully inspect an issue and generate more ideas than individual interviews (Berg, 1998).

Berg (1998) mentions eight aspects of focus groups that researchers should keep in mind when conducting this type of study. The first recommendation suggested is that the facilitator should have a clearly defined objective when presenting a research problem to a focus group. Therefore, the researcher must have a good understanding of the research topic and have several predetermined questions to be used in the focus group. The second element that Berg mentions is that the facilitator must have an understanding of the nature and characteristics of the focus group members. This aspect is important so that researchers can be sensitive to the audiences they are addressing. The researcher must also establish a good rapport with the focus group in order to assure the members of confidentiality and to encourage participation (Berg, 1998).

The fourth recommendation Berg suggests is that the facilitator be an aware listener. More specifically, the facilitator should have an agenda with predetermined discussion topics, but this agenda should be kept flexible depending on the responses generated in the focus group. It is also recommended that the facilitator be well organised. However, this often depends on the experience of the individual who is serving as facilitator. A less experienced researcher can either hire an experienced facilitator or make an extra effort to be well prepared during a focus group study, depending upon the resources available. Berg also recommends that a facilitator lend structure and direction to the focus group discussion, yet refrain from contributing directly to the discussion (Berg, 1998).

The seventh element that Berg addresses is research assistance. Oftentimes it is beneficial if two researchers are involved in the focus group study. One researcher can act as facilitator, while the other can observe and record the discussion. Berg also suggests videotaping the focus group session as a recording technique. However, he notes that this is not always permissible, due to lack of consent from one or more of the respondents. The last recommendation for focus groups is that the content of the discussions be systematically analysed. An objective coding scheme must be applied to the data in a process known as content analysis. This process objectively examines the characteristics in data generated from social communication. The analysis of the data should be stated clearly, in a manner which would allow another researcher to arrive at the same conclusions given the same data (Berg, 1998).

An important aspect of focus groups is the issue of confidentiality. An agreement must be established between the facilitator and respondents, as well as between the respondents themselves, so that confidentiality can be assured. This agreement is most often in the form of a signed statement, which is upheld by an honour code (Berg, 1998). Facilitators must also give reluctant participants the opportunity to withdraw from the study. By doing so, researchers are making an effort to ensure the quality of their data (Berg, 1998).

In some cases, supplementary questionnaires are distributed prior to focus group discussions. This method is referred to as an extended focus group (Berg, 1998). By providing respondents with these written surveys, researchers are able to collect both individual and group responses (Berg, 1998). Whether through the use of questionnaires, interviews or focus groups, qualitative research techniques are especially conducive to gathering feedback from a particular sample population. It permits the use of "innovative data-collection and analysis strategies" (Berg, 1998, p.269). The results of this type of research will enable web developers to incorporate a broader range of resources into their web site. This will allow disabled users to have access to more information on topics relevant to their needs.

IX. Web Page Authoring

In order to design an effective web site for John Grooms, web site authoring techniques had to be considered. Almost every web page on the Internet today is written in a computer language called Hypertext Markup Language (HTML). In order for a computer user to view a web page they must own a software program called a web browser. It is the responsibility of the web browser to read this HTML code and convert it into the text, pictures, and forms that are contained in the web page (Hall, 1998).

The HTML language is divided into sections called tags. Each tag will tell the viewer's web browser what is being sent (i.e. a picture, link, text) and where to put it on the web page. An example of a tag[3] that would print a line of text in bold letters, centred on the screen would be as follows: <CENTER><B>Text Goes in Here</CENTER></B> This small piece of code uses two different tags, CENTER

[3] Refer to Appendix D for examples of HTML tags

and B (for bold). The tag names are written within less than (<) and greater than (>) symbols and must be written twice (Hall, 1998). The first time a tag is written it is "opened," and means that whatever function the tag performs will start at the point where it is written. This will continue throughout the web page until the tag is written again, meaning that the tag is "closed." The only visible differentiation between an open tag and a closed tag is that a closed tag has a forward slash in front of it. Once a tag is closed it will stop performing its function for the remainder of the web page, unless it is opened again (Hall, 1998).

One of the most useful functions of the Internet is the ability for web pages to collect information. Many web sites currently use this technology to receive payments for the goods and services they offer, to receive information about people who view their site through on-line surveys, and to perform a variety of different functions. Most web pages use an HTML tag called a form to allow people to fill out needed information (Hall, 1998). Forms have a variety of different methods for gathering this information, such as textboxes, radio buttons, and check boxes[4]. Textboxes allow the person to use a keyboard to type information directly into the space provided on the web page. Radio buttons are used when a list of different options are given and the user may pick one (and only one) of these options. Check boxes are similar to radio buttons, except the user is not limited to just choosing one item, but rather, can choose many. There are many other types of forms available, but they are not as frequently used (Hall, 1998).

After users have filled out an on-line form they must then click a button on the screen called a submit button. The function of this button is to send the information that the user just entered to the company or organisation that houses the particular web page. This can be done by using several different methods, each varying in complexity and usefulness (Hall, 1998).

The easiest way to send information entered in a form is by e-mailing it to a person or company. This is done by attaching a simple line of HTML code to the submit button that will, in turn, e-mail the entered information to a specific e-mail address. While this method is the easiest from the programmer's perspective, it is very difficult for one person (or even a number of people), to keep track of the

[4] Refer to Appendix E for examples of textboxes, radio buttons, and check boxes

information being sent and to use the results in any type of practical application (Hall, 1998).

Frequently, the owner of a web page will want to monitor the information submitted from his web page in a database. This is very difficult to do by simply e-mailing the responses to the form, so a more complex method is usually used to achieve this goal. One such method is called Common Gateway Interface (CGI) (Hall, 1998).

Computers that are located on the Internet are put into two separate categories: servers and clients. Servers are computers that house the actual web sites. They may also contain databases and other types of stored information. Clients are computers that attempt to access the web sites housed on the server. CGI works by allowing users on the client side to run programs still on the server. A "CGI program can, for example, access information in a database and format the results as HTML" (Howe, 1999). In other words, the CGI program allows a client to access the information in a database on the server, make changes accordingly, and have the changes show on the client's screen. This would prove especially useful for web page developers who wanted to monitor survey results, count inventory on-line, and allow users to make purchases over the
Internet. The information from each entry can be separated and tabulated directly (Howe, 1999). If the information is simply sent via e-mail, a person on the server side would need to retype all of the incoming information into a more usable database format.

One of the newest methods for transferring database information over the Internet is through the use of a computer language called Extensible Markup Language or XML. The syntax, or format, of XML closely resembles HTML in that it uses tags to display information. However, the difference between XML and HTML is that the computer programmer can create user-defined tags in XML (Sikorski and Peters, 1998). In other words, to retrieve information from the client, a web designer can define a tag such as <NAME> in which the client can type his name. This is very similar to <CENTER> used earlier, except that the name of the tag is defined by the web designer and not by HTML programming language itself. Put another way, if the database contained people's addresses the programmer could define tags called <NAME>, <STREET>, <CITY> and <ZIP>. The designer can

then use these tags to display the information in the web page, wherever appropriate, while the web browser converts the information into a readable form and sends it back to the server (Orenstein, 1999).

While using XML is much easier than using many other methods for putting database information on the Internet, the technology is very new and as of the spring of 1999, only Microsoft's Internet Explorer 5.0 can support XML. This means that a web page containing XML would only be accessible to an extremely small portion of computer users. However, the computer industry has been strongly supporting the development of XML and it is very likely that it will be added to the upcoming versions of web browsers in the near future (Sikorski, Peters, 1998).

X. Secure Server Payments

The Internet has become an instrument for the exchange of all types of information, both public and private. As the Internet has grown, the demand for the ability to provide commerce online (commonly know as electronic commerce or e-commerce) has increased substantially. The greatest portion of this e-commerce occurs through credit card purchases and donations. However, using traditional web pages is not considered to be an appropriate method for transferring credit card information. Advanced computer users can access the credit card numbers and use them in a fraudulent manner. In order to prohibit others from accessing credit card numbers, a technology called Secured Socket Layers was developed. Secured Socket Layers allow for secured server payments. This permits data, such as credit card information, to be distributed from one computer to another with a very low risk of other computer users accessing the information (Hall, 1998).

The data transferred through Secured Socket Layers is more secure than data transferred through a traditional web page for two main reasons. The first of these reasons is that when data are transferred through a traditional web page, the information is often relayed through several different computers until it reaches its destination. This means that a computer user who can gain entry into any of these computers will be able to access the information that is being transferred. When a secured server payment is initiated, the only computers involved are the ones sending and receiving the information. Therefore, it is much more difficult for an outside computer user to gain access to the data involved (Hall, 1998).

The second way in which secured server payments are more secure than data transferred through traditional web pages is that the information that is sent is encrypted by the sending computer and in turn decrypted by the receiving computer. This means that the data is sent in code form that is only readable by the computer that receives the message. Therefore, even if an outside user somehow gains access to the data being sent, the information they receive will be unreadable to them (Hall, 1998).

An industry standard has been established to inform users that they have entered a secured web site. This standard includes displaying a locked padlock within the browser when a secured site has been entered. The two most popular browsers, Netscape Navigator and Internet Explorer, have adopted this standard to inform users they have browsed upon a secured site. If users are browsing a site that is not secure the padlock either appears unlocked or does not appear on the screen at all.

XI. Summary

John Grooms is an organisation that provides many services and resources to those with disabilities. The goal of this project was to redesign John Grooms' previous web site in order to make it more informative, easier to navigate, and most importantly, raise public awareness of the organisation's role in helping those with disabilities. In addition, the redesigned web site had to attract donors by providing the facilities for secured online donations.

In preparation for this project, several avenues of research had to be pursued. First, the history of the Internet was researched in order to illustrate the ways in which the World Wide Web has evolved in the past decade. The most crucial aspect of this research was the shift from text-based to graphics-based software. Secondly, research was carried out concerning the current disability acts established in both the United States and the United Kingdom. Although there are acts in effect in both the United States and the United Kingdom, Internet accessibility for disabled people has yet to be enforced by either government. Extensive research was also reported on the issue of web accessibility. Technologies available to disabled people to aid in web site navigation, such as Braille readers and text-to-speech converters, were described. Current guidelines for a universal design that would promote access to those with disabilities were also discussed in detail. In addition, an instructional overview of

web site design was provided, including information on secured server payment. This literature review provided the background information necessary for successful completion of our project objectives.

Methodology

I. Objective

The objective of this project was to redesign John Grooms' former web site. The new web site is more informative, easier to navigate, and most importantly, raises public awareness of John Grooms as a provider of many resources for those with disabilities and their families. In addition, the newly redesigned site encourages financial support by providing the facility for secured online donations.

II. Methods

In order to assure that the redesigned web site effectively represented John Grooms, we conducted focus group sessions with the directors and primary managers of the organisation. The web site was then redesigned with this feedback in mind. In addition, the site adhered to the web accessibility guidelines as outlined by the Web Accessibility Initiative so that as many users as possible are able to navigate the site. The redesigned web site was evaluated first by the staff to ensure that both style and content were accurate, and then by a sample of the target audience to ensure the navigation of the web site was easy and relevant information was available. Modifications were made to the web site accordingly. Qualitative research methods, including focus groups and individual interviews were employed to acquire detailed information from the respondents.

III. Gathering Qualitative Data

In order to design a web site that effectively represented all aspects of John Grooms, input was obtained from members of the organisation. These members represented all departments within John Grooms' Head Office and several regional offices. This was done to ensure that the redesigned web site incorporated all

subdivisions and each could be represented accurately. In a broad sense, both the Charity division and the Housing Association division had to be represented as well as their respective departments. Therefore, it was essential that the directors and managers from each of these departments be included in the focus groups so that the layout of the web site could be outlined based on the full and accurate feedback from these discussions.

The purpose of conducting focus groups was to gather general feedback about the specific objectives of the web site, the intended audience, and the information that the organisation believed was most critical to convey. Six focus groups were conducted, each consisting of three to five directors and primary managers. The charity and housing divisions were kept separate in order to concentrate on only one portion of the web site at a time. Also, the higher level directors and managers were placed together and separated from those below them in an effort to eliminate any possible bias. During these focus group discussions, the respondents had the opportunity to express their concerns about the current web site as well as brainstorm about new ideas for the redesigned site. One member of the project group served as facilitator for the focus group, while the other two project members observed and recorded the content of the discussion. Each member of the project group served as facilitator for two of the six focus groups sessions that were conducted.

The qualitative data generated from each of the focus groups was analysed and subsequently served as a guideline during the web site redesign process. Since each department was represented in the overall web site by a link to its own separate section of the web site, each focus group specifically addressed ideas for effectively representing the individual departments within John Grooms' web site. The focus groups also were given the opportunity to express any general concerns and offer suggestions concerning the overall layout of the web site.

It was important that all potential respondents had a clear understanding of our project goals and the importance of their contribution to the study in order to encourage participation in focus groups. The directors and managers involved in the focus groups were sacrificing their time in order to participate in the discussions. Therefore, emphasis had to be focused on the benefits of redesigning John Grooms' former web site. Specifically, the new web site will raise public awareness of John Grooms as a resource for those with disabilities. The respondents had to be assured

that their contributions were valuable and would lead to a redesigned web site that better represented their organisation and, more specifically, their departments.

As a supplement to the focus groups that were conducted, individual interviews were conducted with the six managers of sites apart from those at the Head Office. Representatives from each of these locations outside of John Grooms' Head Office were interviewed either over the phone or in person so that their feedback could be obtained. These interviews included regional managers as well as unit managers from Hope Nursery and Grooms Holidays.

Once a working version of the redesigned web site had been completed during the fifth week of the project, the managers and directors who were involved in the initial focus group sessions evaluated the site. These staff members assessed the content of the redesigned web site as well as the overall layout. The directors and managers were provided with a printed copy of their departments' web pages on the site the day prior to their scheduled evaluation session. This enabled them to critically read and revise the text and examine the images that were posted on the web site. In addition, a group of six clients with a range of disabilities was selected by our liaison to evaluate the site on their own personal computers at home and suggest modifications. These users evaluated the site primarily based on ease of navigation and organisation of site, accessibility, available resources, and aesthetic appeal. By accessing the web site at their homes, feedback was obtained regarding the ease and speed of downloading the site on different computers with several web browsers. The visually impaired evaluator provided feedback on the text-only site and accessibility through the use of a screen reader. The results from the evaluation were analysed and modifications to the web site were then implemented accordingly. The web site was designed with a link to a Comments and Feedback web page so that all users of the web site could evaluate the site and suggest improvements in the future.

IV. Web Site Authoring

After developing a general outline of the content that would be included in the web pages, a basic web page layout had to be decided on. Each individual web page in the site was designed with a common theme. For example, each page in the site contained the John Grooms logo centred at the top of the screen with the navigation bar centred below it. In addition, the general cosmetics of the site, such as font size

and colour, were uniform. Since it is very difficult for many computer users with disabilities to navigate through sites with frames, they were not used in the design of the new John Grooms web site. The entire site also was recreated in a text-only format as a separate web site with identical information, accessible through a text-only option appearing on the first page of the web site.

Once the layout and content of the web site had been determined, the next step in the redesign process was the actual construction of the web site. To aid in the construction of the site we used a web design program called Microsoft Front Page 98. This program was used to translate features such as text, images, and tables into the HTML programming language used by web browsers. Many advanced features in Front Page 98, such as e-mail forms, are supported by Corpex[5], John Grooms' web site host.

In addition to creating individual web pages for each of the different departments within John Grooms, we also had to include general informational pages concerning the entire organisation. These pages contained more advanced web design elements such as on-line surveys and message boards. Visitors of the web site had to be allowed to run programs on John Grooms' server in order to accomplish such tasks. Common Gateway Interface (CGI) was used to carry out this function. To date, CGI provided the easiest and most reliable method to run programs on a server from a client computer. We chose CGI over Extensible Markup Language (XML), because the technology that drives XML was still far too new to be reliable or supported by most web browsers. Nearly every web browser supports CGI, and this technology has been used for years. Also CGI was simple enough that it allowed for the successful design of all programs needed in the limited amount of time available.

As the site was being completed, briefing the staff on how to update and make changes within the John Grooms web site began. A brief instructional manual[6], provided in our final report, was also used to help the staff learn how to update the web site. The briefing covered the sequential steps involved in updating the site. The first step included how use Front Page 98 and the different features the staff may need to use. Next, the staff learned how to edit or add text to a web page. This was followed by learning how to change pictures, links, and tables. Finally they learned

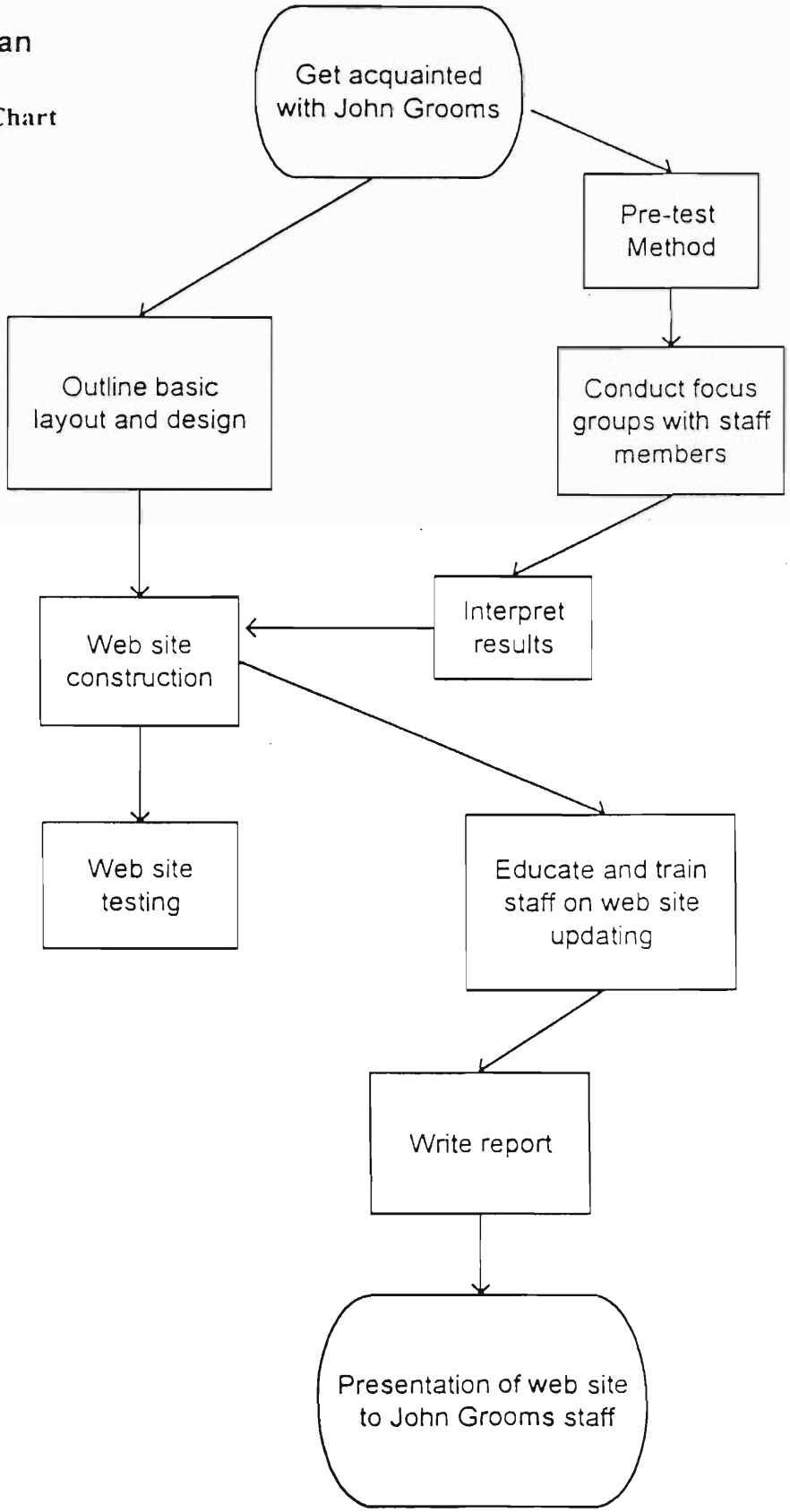
[5] Refer to Appendix G for information on web site server
[6] Refer to Appendix H for Web Site Authoring Manual

how to save changes made to the web page and upload them onto John Grooms' server.

It was also necessary to brief a staff member who is in charge of retrieving and maintaining data gathered from forms on the John Grooms web page. These forms include general comments about the site, requests for more information, and people wanting to volunteer their time. This information is sent via e-mail to an account and they were briefed on how to access the specific e-mail account, sort the e-mail, and respond to it accordingly. No method of making back up copies was established, as there were not enough free e-mail accounts available on the server and the likelihood of needing a back up is very low.

Work Plan

I. Task Chart



II. Pert Chart

Tasks	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Interview Staff and Clientele							
Interpret results							
Outline basic layout and design							
Web site construction							
Web site testing and user feedback							
Educate staff on website updating							
Write report							
Present web site to John Grooms' staff							

In order to redesign John Grooms' previous web site, six focus group sessions were conducted with the primary managers and directors from each of the departments within the organisation.[7] These individuals were selected based on their position within the organisation and the groups were assembled so that related departments were in a single focus group. During these focus group sessions, several aspects of the web site were discussed such as the intended audience and objectives of the site. Recommendations were gathered regarding the structure of the new site as well as the content and specific features for each department within John Grooms' Charity and Housing Association.

I. Housing Association

During the focus group discussions involving the departments within the Housing Association, the first critical point that was addressed was that the Housing Association is not a subset of the Charity and, therefore, had to be represented equally on the web site. All focus group members agreed that the main goals of the site were to increase public relations, raise the organisation's profile, and increase financial support. In addition, the web site had to encourage tenant involvement – both current and future tenants. Thus, from the Housing Association's perspective, the intended audience included corporate partners, local housing authorities, other housing associations, potential donors, lenders, and tenants.

Specifically, the web site had to include information regarding the different types of housing options – rented housing, shared ownership, and "smart" housing. The web site also had to contain information concerning the Housing Association's involvement with other charities, specifically Headway's National Head Injuries Association and the Parkinson Disease Society. Partnerships with local authorities and other housing associations were to be represented on the new web site. Features such as a tenant bulletin board and a lettings bulletin board were recommended as well. Both had to be easily updateable so that current tenant information and all available lettings could be routinely posted on the web site.

[7] Refer to Appendix I.1 for further information on focus group sessions

In order to encourage financial support for the various housing projects that the organisation is involved with, it was recommended that a link from the Housing Association to the secured donations page be included. John Grooms is a Christian-based organisation and information regarding work done in collaboration with church groups was recommended as possibly being included in the new web site as well.

II. Charity

Four focus groups were conducted with the primary managers and directors in the Charity. One of these focus groups contained the two staff members from the Communications Department who (in addition to our liaison) were primarily responsible for the redesigned web site. Thus, their comments encompassed virtually the entire realm of the new site. They suggested that the Home Page include links to the following five main aspects of the web site – Charity, Housing Association, Grooms Holidays, HOPE Nursery, and Fundraising. The Home Page also had to include a How You Can Help option with immediate links to fundraising, volunteers, and events. Secured payments were also discussed in detail. The facility for secured online donations was a top priority in the web site redesign project. They recommended that the ability to reserve holiday accommodations and make HOPE Nursery purchases online be researched so that this feature could be added in the future. It was requested that tenant publications such as the *Access Newsletter* and *The Tenant Handbook* be made available on the web site. In addition, tenants had to be able to contact the Maintenance Service Centre through the web site. A financial summary from the Finance Department had to be available on the web site as well as the ability to request a full financial report. The web site also was to provide a medium to post campaigns as well as public affairs issues. A counter also had to be included on the site to record the number of people accessing the site as well as specific pages within the site.

All members of the focus groups from the Charity agreed that the intended audience for the site was primarily disabled people and financial donors. Therefore, information regarding both available services and fundraising had to be present on the new web site. In order to encourage donations by both the corporate and private sectors, secured donations as well as mail-in gift aid forms had to be made available on the site. Other aspects of the site that were discussed included accessibility of the

web site through a text-only option and the facility for users to provide feedback, increasing the interactivity of the site.

During the focus group containing members from the Fundraising and Direct Marketing Departments, the two main objectives of the web site were determined to be: (1) strengthen public relations, and (2) generate more revenue. In response to the latter objective, the major topic of discussion was secured online donations. The capability of making donations directly online was strongly preferred to a printable mail-in form. The Capital Appeals Director was working on an appeals campaign that had a separate web site to support secured online donations. Therefore, the possibility of linking John Grooms' web site and the Capital Appeals web site was discussed. However, it was agreed that in order to ensure consistency (in terms of overall site layout) it would be best to have John Grooms' web site secured separately. In terms of the Fundraising and Marketing Departments involved in this focus group, the intended audience for the web site was determined to be potential donors – corporates, trusts, and individuals, both existing and new.

The Events Manager for the Charity, was interested in having an Events Bulletin Board that could be updated on the web site frequently. The page was to contain information regarding the current events and contact information for interested volunteers. The Director of Human Resources mentioned having an Employment and Training Page which could be updated frequently and was to contain advertisements for employment opportunities through John Grooms. The Director of Services and Development confirmed that the information currently available about residential homes on the web site was still accurate, with little need of revision.

During the focus group session with the Communications Department, the issue of web site updating was discussed. It was determined that two staff members would be briefed on web site modification. Beth Arnold and Karin Weighton[8], both members of the Communications Department staff were made responsible for updating all of the information on the web site. Representatives from each of the other departments within John Grooms would update their web pages offline and then submit the material to the Communications staff, who would then review the information and update the site. This helped to ensure that the overall consistency of

[8] Refer to Appendix A

the web site's layout and content would be conserved. By limiting access to the updating of the site, long-term policing problems would be avoided.

III. Regional and Unit Managers

Included in the focus group discussions were the managers from Grooms Holidays and HOPE Nursery, two of the main subsets within the Charity. The manager from HOPE Nursery discussed his desire to have an online catalogue of the available plants at the nursery. There was currently a published catalogue of approximately 14 pages in length that he wanted to be made available through the web site. The intended audience for this portion of the web site was potential purchasers who may not necessarily be aware of the other aspects of John Grooms. Therefore, navigation from the John Grooms Home Page to the HOPE Nursery pages of the site had to be clear. The online catalogue was to be easily updateable and an email/phone contact for ordering had to be provided. The facility for secured online ordering was a future goal for the HOPE Nursery web page. According to the HOPE manager, the site had to encourage an increase in revenue generated through purchases from HOPE Nursery

The manager from Grooms Holidays expressed the desire to have the 1999 Holidays brochure made available on the web site in order to promote marketing of the holiday accommodations available from Grooms Holidays. Each of the three hotels, 16 self-catering units, as well as the boating facility had to be represented with text descriptions and pictures located in the web site. The manager also mentioned having a link with the English Tourist Board and Tomorrow's Tourism, which provides funds for web sites that advertise these types of accommodations. The intended audience for this aspect of the web site was mainly disabled people, their families, and friends.

The Research and Development Facilitator for the Charity discussed the importance of ensuring that the public, specifically those that visit the web site, has a positive attitude about John Grooms. She saw the intended audience as being both disabled people as well as the general public. Therefore, the web site had to serve as an invitation to John Grooms. Essentially, "If you need help with a service, come here..." The web site also had to include a list of the available services, accompanied by brief descriptions of each.

An Eastern Regional Manager discussed several aspects of the Charity that he wanted well represented on the web site. These included Nursing Homes and Residential Care Units, Overseas Work, Icanho Rehabilitation Centre, and the Community Care Agencies. (These were all present on the previous web site, to some degree, but had to be better represented in the new site).

The Western Regional Manager perceived the goal of the web site as a means to strengthen public relations and increase fundraising. In terms of her department, she wanted the web pages to focus on encouraging church and academic groups in her region to become actively involved in John Grooms' volunteer events. The web site had to provide these potential volunteers with the facility to be able to contact her and be updated on the events going on within the organisation.

Web Site Design

Based on the input we obtained during our focus group sessions and supplementary interviews, we were able to identify the intended audience and the primary objectives of the web site. John Grooms is a complex organisation that provides a wide range of services and resources for disabled people. Therefore, the redesigned web site had to address the needs of all the potential users of the site. The intended audience of the web site included the following:

- disabled people, their friends, families, and care-givers
- financial donors
- local housing authorities
- corporate partners
- charity partners
- tenants – current and future
- purchasers of plants and flowers from HOPE Nursery
- volunteer groups (e.g. churches and schools)
- general public

The primary goals of revising the web site were to increase public awareness of John Grooms, encourage financial support of the organisation through secured online donations, facilitate online holiday bookings and nursery purchasings, and allow the disabled and their families to learn more about the resources available to them through John Grooms. By prioritising the recommended features for the new web site while recognising the time constraints of the project, we were able to develop the structure and content of the redesigned site. The site was essentially separated into the two major subdivisions of John Grooms – the Charity and the Housing Association. Each of these sister organisations was then further divided into several departments, each of which was represented on the new web site.

The John Grooms Home Page contained a brief description of the organisation's goals – both within the Charity and the Housing Association. The navigation bar located at the top of the page below the John Grooms logo, contained links to the Charity, Housing Association, Site Map, How You Can Help, and (return to) Home Page. This navigation bar was used consistently throughout the web site so that any of these five links could immediately be accessed at any time during the navigation of the site. In addition, a vertical menu was located down the left side of page. This menu was changed as different pages were selected during navigation of the web site. On the John Grooms main Home Page, this menu provided links to a John Grooms History page as well as a page that contained information about various disabling conditions that John Grooms primarily works with. The Home Page also included a text-only option which increased the accessibility of the entire web site, especially for visually impaired users who navigate the Web with the aid of screen readers.

The Housing Association, one of the two major subdivisions of John Grooms, was divided into the following sub-sections within the web site – Partnerships; Ownership Options; Design, Management, and Maintenance; Lettings; Fundraising; and Tenant Involvement. Within the Partnerships section, the Housing Association's involvement with the Housing Corporation, other housing associations, local authorities, and care agencies was discussed, each on separate web pages. Within the Ownership Options section, information was provided on each of the following – Rented Housing, Shared Ownership, and 'Smart' Housing. A housing application

form was also provided in the Ownership Option section which could be submitted to the Housing Association by email through the web site or printed out and sent by post.

In the Design, Management, and Maintenance section of the web site, information was provided on these three crucial aspects of the Housing Association's role in providing wheelchair standard housing. A bulletin board with available lettings was also posted on the new web site so that potential tenants could have access to this information. This bulletin board was created using a simple template which would make it easily updateable so that the listings could be kept current.

Within the Tenants section, resources such as *Access Newsletter*, *The Tenant's Handbook*, the facility for contacting the Maintenance Service Centre, and a Comments Page were made available. This section was designed to encourage tenant involvement and gather feedback. The facility for online donations was completed and made accessible through the Housing Association's Fundraising section.

The second of the two major subdivisions within John Grooms is the Charity. The portion of web site devoted to the Charity was divided into several sub-sections, including each of the following – Employment and Training; Holidays; Care Services and Development; and Fundraising. Within the Employment and Training section, information was provided on the National Vocational Qualifications that the Charity offers and the Investors in People program. An Employment Opportunities bulletin board was included in this section so that job listings could be posted. The bulletin board was designed using a simple template, which would make it easily updateable so that the employment listings could be kept current. This section also included information on HOPE Nursery and contained the facility's online catalogue of plants and flowers.

In the Holidays section of the web site, the 1999 Holidays brochure was posted online. This section of web pages included information on each of the three hotels, 16 self-catering units, and the boating facility. An image map was provided on the Holidays home page so that all of the accommodation facilities could be accessed by clicking the mouse on their geographical location within the United Kingdom. For each Grooms Holidays accommodation, a textual description and supplementary image was provided. In addition, holiday booking information was provided on the web site.

Within the Care Services and Development section, there was information provided on each of the following – Icanho Brain Injury Centre; Overseas Work at the Centre for Rehabilitation of the Paralysed in Bangladesh and at the ASTHA facility in Delhi, India; Community Care Services; Social Work Services; and Residential Care Homes.

The Fundraising section was accessible through both the Charity and Housing Association's web pages as well as directly from the John Grooms Home Page. The Fundraising section contained an Events bulletin board as well as information on volunteering. There was also the facility to make secured online donations. These donations were differentiated based on the specific donor type as well as the intended appeal. Thus, separate pages were created for Corporates and Trusts, Legacy Giving, and Private Individuals – both current supporters and new enquiries. Templates were designed so that information regarding the individual appeals for both current and new donors could be provided on the site and be easily updateable. A Merchandising link was also established for the sale of items such as Christmas cards.

In fact, all of the recommendations that were discussed in the focus group sessions were incorporated into the final design of John Grooms' new web site. Research was carried out on providing secured online holiday bookings and nursery purchasings, but this was the only aspect of the web site that was not pursued, thus remaining as a future project.

Meta tags were used in order to allow the web site to be indexed by search engines, and to provide background information regarding the construction of the site. Meta tags are used at the beginning of the HTML of each page and are only seen by web browsers and search engines, not by the actual users of the site. We chose to include meta tags on a selected group of the web pages within the site. Specifically, mata tags were assigned to the main John Grooms Home Page, the Housing and Charity Home Pages, as well as the primary directories from the respective home page menus. Meta tags were limited to these main departmental pages so that search engines would direct enquirers to these more general informational pages, rather than to highly specific ones.

There are many different types of meta tags used in web site development, each defined by a specific meta name. The meta names used in the construction of the John Grooms web site were: 'keywords,' 'author,' 'description,' and 'generator.'

The first two meta names, 'keywords' and 'author,' were used to index the web sites on search engines. Keywords are words that may be typed into a search engine, generating a list of all the web pages the search engine has indexed with similar keywords contained in the sites' meta tags. For example, if a person performed a search for the term, 'housing associations,' the John Grooms Housing Association web site would appear because the words 'housing association' were written in its keywords meta tag. If a web page is displayed on a search engine a brief description of the elements contained in the web page are usually given. This description was designated by the text typed into the 'description' meta tag.

Aside from indexing web pages on search engines, meta tags are used to provide information on the construction of the site. The meta name 'authors' is used to inform web designers as to who the authors of each particular web page were. Also, the meta name 'generator' is used if a piece of web development software was used in the construction of the page. Microsoft FrontPage 98 was used in the construction of the John Grooms web site and that has been denoted in the 'generator' meta tag.

The new web site was registered with sixteen of the search engines that are predominantly used in both the United Kingdom and United States[9]. This will encourage people who were not previously aware of the services John Grooms provides, to access the site through online searches.

Evaluation of Site

Once a working version of the web site was completed, during the fifth week of the project, the site was evaluated by the primary managers and directors at John Grooms that were in the initial focus groups[10]. These staff members assessed the content of the redesigned site as well as the overall layout. These directors were supplied with a complete black and white printed copy of their departments' web pages on the web site the day prior to their evaluation session. This enabled them to critically read the text and examine the images that were posted on the web site, more so than when they were sitting in front of the computer monitor in the company of

[9] Refer to Appendix J for a complete list of the registered search engines
[10] Refer to Appendix I.2 for the schedule of evaluation sessions

other staff members. In addition, a group of five clients with a range of disabilities, including mobility and visual disabilities, was selected by our liaison to evaluate the site on their own personal computers at home and suggest modifications. Modifications to the site were then implemented in accordance with these recommendations.

Evaluation of the web site was based on:

- accuracy of content
- aesthetic appeal of layout
- organisation of site (ease of navigation)
- user accessibility (for a range of disabilities)

During the evaluation sessions that were conducted with the primary managers and directors, very few modifications to the web site were requested. In fact, the only type of revisions that were required was slight textual changes. Most of the text for the web site was drawn from brochures that had already previously undergone the managerial approval process. Therefore, slight revisions or rewordings were required for a few of the web pages in order to update some of the text. For example, some of the contact information, statistics, and general grammar were inaccurate and had to be revised. It was also recommended during the evaluation sessions that the Registered Charity Number be included on the Charity Home Page as well as the address and telephone number for John Grooms. The Chief Executive of the Housing Association requested that a list of the Board of Trustees from Housing be accessible from a direct link on the Housing Home Page, while the Charity Director did not. These modifications were then made to the web site. The manager of Grooms Holidays was especially pleased with the on-line version of the Holidays brochure that was posted on the web site.

The sample of clientele that evaluated the web site were equally pleased with the accessibility, organisation, and content of the site. The text only option enabled the visually impaired evaluator to easily navigate throughout the site and readily find the resources available on the site. No changes to the web site were suggested by these reviewers.

The staff and clientele of John Grooms were pleased with the newly redesigned site and felt that it represented the organisation in a professional manner. The objectives of the web site were achieved since it is hoped that the new site

increases public awareness of John Grooms, encourages financial support of the organisation through secured online donations, and allows disabled people and their families to learn more about the resources available to them through John Grooms.

Bibliography

Bellinger, Robert. "Info highway a dead-end?" Electronic Engineering Times 27 Mar. 1995: 78.

Bellinger, Robert. "Microsoft makes Windows 95 apps more accessible." Electronic Engineering Times 2 June 1997: 113.

Berg, Brude L. Qualitative Research Methods for the Social Sciences. Boston: Allyn and Bacon, 1998.

Burgstahler, Sheryl, Dan Comden, and Beth Fraser (1997, December). *Universal Design for Universal Access: Making the Internet More Accessible for People with Disabilities* [WWW document]. URL http://www.wla.org/alki/dec97/univdesn.html

Disability Discrimination Act (1997). *A Policy and Practice Guide for Local Government by Disabled People* [WWW document]. URL http://www.disabilitynet.co.uk

Dorsey, Jennifer. "Web site gives tips to ease travel for those with disabilities." Travel Weekly 18 Apr. 1996: 21.

Gilder, George. "Inventing the Internet again." Forbes 2 June 1997: 106-115.

Hall, Marty. Core Web Programming. Upper Saddle River, NJ: Prentice Hall.

Howe, Dennis. (January 29, 1999) *Free On-line Dictionary of Computing* [WWW document]. URL http://wombat.doc.ic.ac.uk/foldoc

Kautzman, Amy M. "Virtuous, Virtual Access: Making Web Pages Accessible to People with Disabilities." Searcher June 1998: 42.

Luskin, Bernard J. "Toward an understanding of media psychology." Technological Horizons In Education Journal Feb. 1996: 82-84.

Machrone, Bill. "Navigating the disabilities maze." PC Week 5 Feb. 1996: 57.

McKeefry, Hailey Lynne. "Web's double-edges sword: Accessibility vs. complexity." Computer Reseller News 5 Oct. 1998: 140.

Moeller, Michael. "Disabling Web Barriers; Dynamic content, multimedia advancements could foil disabled users." PC Week 11 May 1998: 25.

Nielsen, Jakob (1996, October). *Accessible Design for Users with Disabilities* [WWW document]. URL http://html.miningco.com/msubaccessible.htm

Orenstein, David. "Web language that tags site data gains industry support." Computerworld. 11 Jan. 1999: 28.

Sikorski, Robert, Richard Peters. "XML is hatching." Science. 21 Aug. 1998: 1164.

Radosevaich, Lynda. "Fixing Web-site Usability." InfoWorld 15 Dec. 1997: 81-82.

Wendling, Dan. "Surfing the internet: would it be useful to you? What is it, anyway?" Accent on Living Spring 1996: 73.

Wingfield, Nick. "Blind Web users campaign to 'see' more of cyberspace." The Wall Street Journal 9 Sept. 1998: B1.

Glossary

Animation: A web page feature that allows a series of pictures to be rotated in order to simulate motion.

Audio Clip: A file that contains usually a short audio segment to which the listener can hear either over the web or on their computer by executing the file.

Captions: Text written either behind or below a picture, providing a description of that picture.

Client: The computer that accesses information on a server.

Closed Captioning: The text accompanying audio or video clips which is provided to accommodate hearing impaired users.

Downloading: The process by which a client computer retrieves selected files from a server's computer.

Download Speed: The time that it takes for information to be received by a client from a server.

E-mail: Short for electronic mail. The method used to send text files from one computer to another.

Frame: Divides a web page into separate sections, each acting as its own page.

Links: Either a picture or text (typically indicated by underscored blue text) which, if clicked on, takes the user to a different web site.

Macintosh (Mac): A brand of computer manufactured by Apple Inc.

Microsoft Windows: An operating system created by Microsoft Inc. which allows users to run programs on their computer, such as web browsers.

Modems: A device some computers use that allows a person to link their computer to a phone line and access the Internet.

Mouse: A small device held in a persons hand which is moved around on a flat surface and enables the user to send input to the computer.

Navigate: The process of moving from one web page to another on the Internet. Another term for "surfing the web."

Newsgroup: A page (or pages) on the Internet that allows people to post comments concerning a certain topic.

Scrolling Text Bars: A web page feature that allows text to continually move from left to right or up to down on the screen.

Server: The computer that typically contains the actual web site itself. Servers receive requests from clients and relay information to them based upon that request.

Updating: Replacing old information or files with newer ones.

Wallpaper: An image or design that is displayed as a background in a web page.

World Wide Web (WWW, Web): A network of computers whose primary goal is to house sites.

Appendix A.1: John Grooms' Mission Statement

John Grooms is a non-profit organisation based in London, England. The organisation's objective is to allow disabled people to maintain their independence and improve their quality of life.

John Grooms is a complex organisation that includes both the multi-faceted Charity as well as the Housing Association. The organisation currently employs between 500 and 600 people at its main centre in London and at the twelve other facilities that the organisation directs, such as hotels and a horticultural nursery.

Some of the services that the Charity provides include employment and training, special care services, such as nursing homes, and holiday accommodations. John Grooms also extends its assistance outside the scope of the United Kingdom. They currently oversee The Centre for the Rehabilitation of the Paralysed in Dhaka, Bangladesh, and are considering work on a similar centre in Delhi, India.

The John Grooms Housing Association's main goal is to design, manage, and maintain housing for people with disabilities and their families. The association is considered to be the leader in providing wheelchair standard housing and has been expanding in the past few years. There is currently a need for over 300,000 additional wheelchair accessible housing units in the United Kingdom and the John Grooms Housing Association is working to accommodate as much of this need as possible.

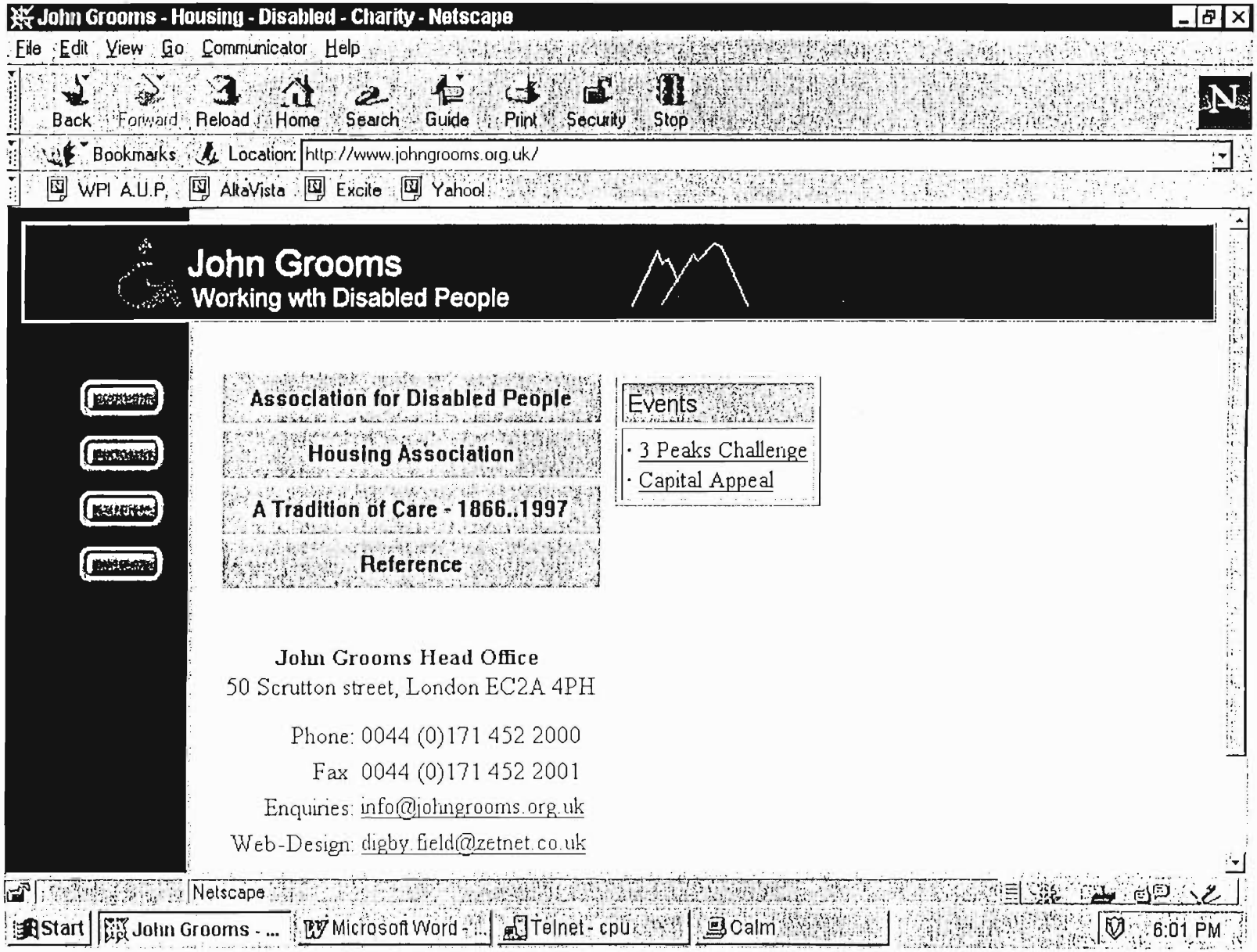
John Grooms currently has a web site (*www.johngrooms.org*), which was last updated in 1997. This site contains much outdated information and does not properly reflect the attitude and attributes of John Grooms.

Liaison:

Beth Arnold
John Grooms
50 Scrutton Street
London EC2A 4XQ
Phone/Fax: 0181 245 2103
Email: mbarnold@globalnet.co.uk

Secondary Liaison:

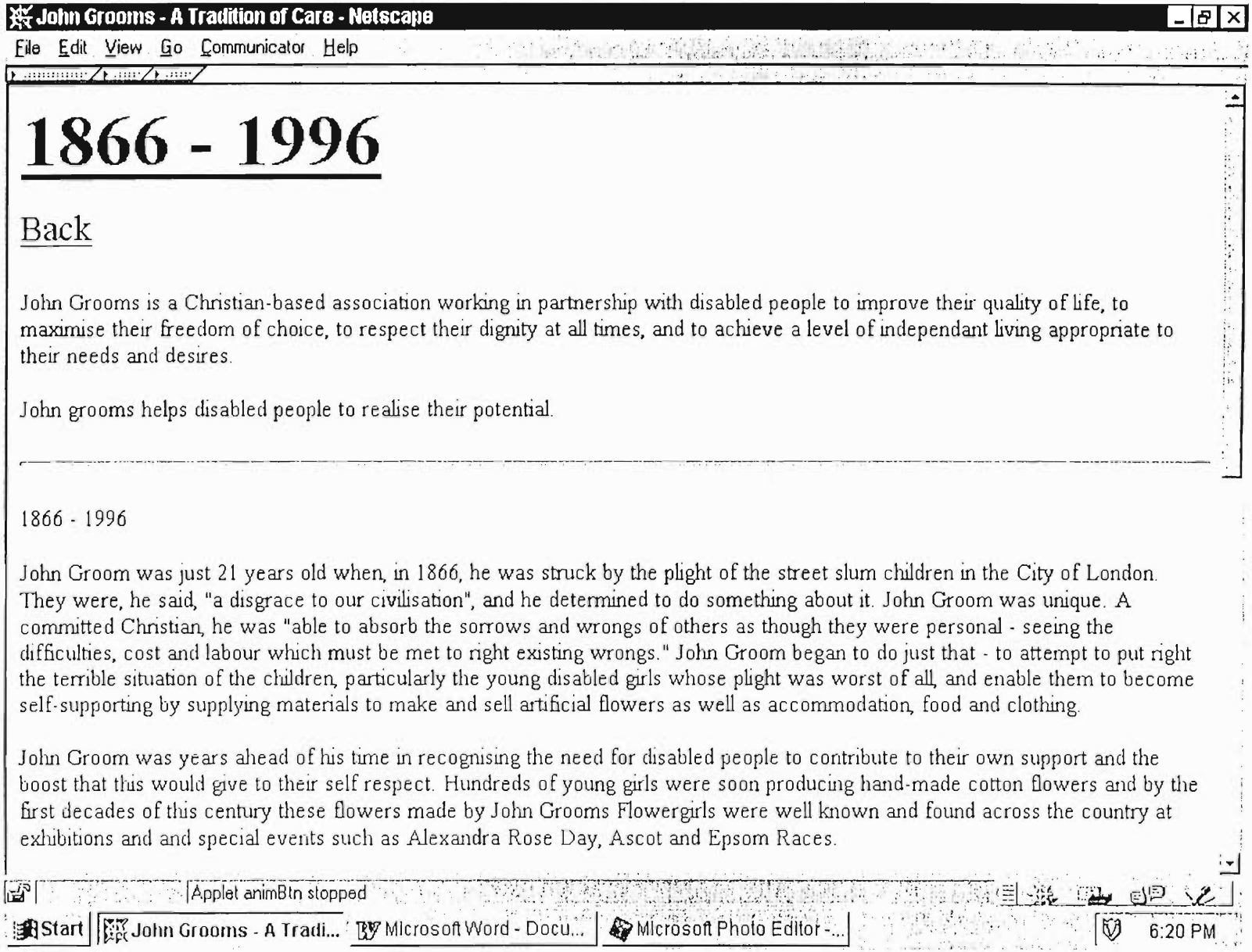
Karin Weighton
John Grooms
Head of Communications
Phone: 0171 452 2124

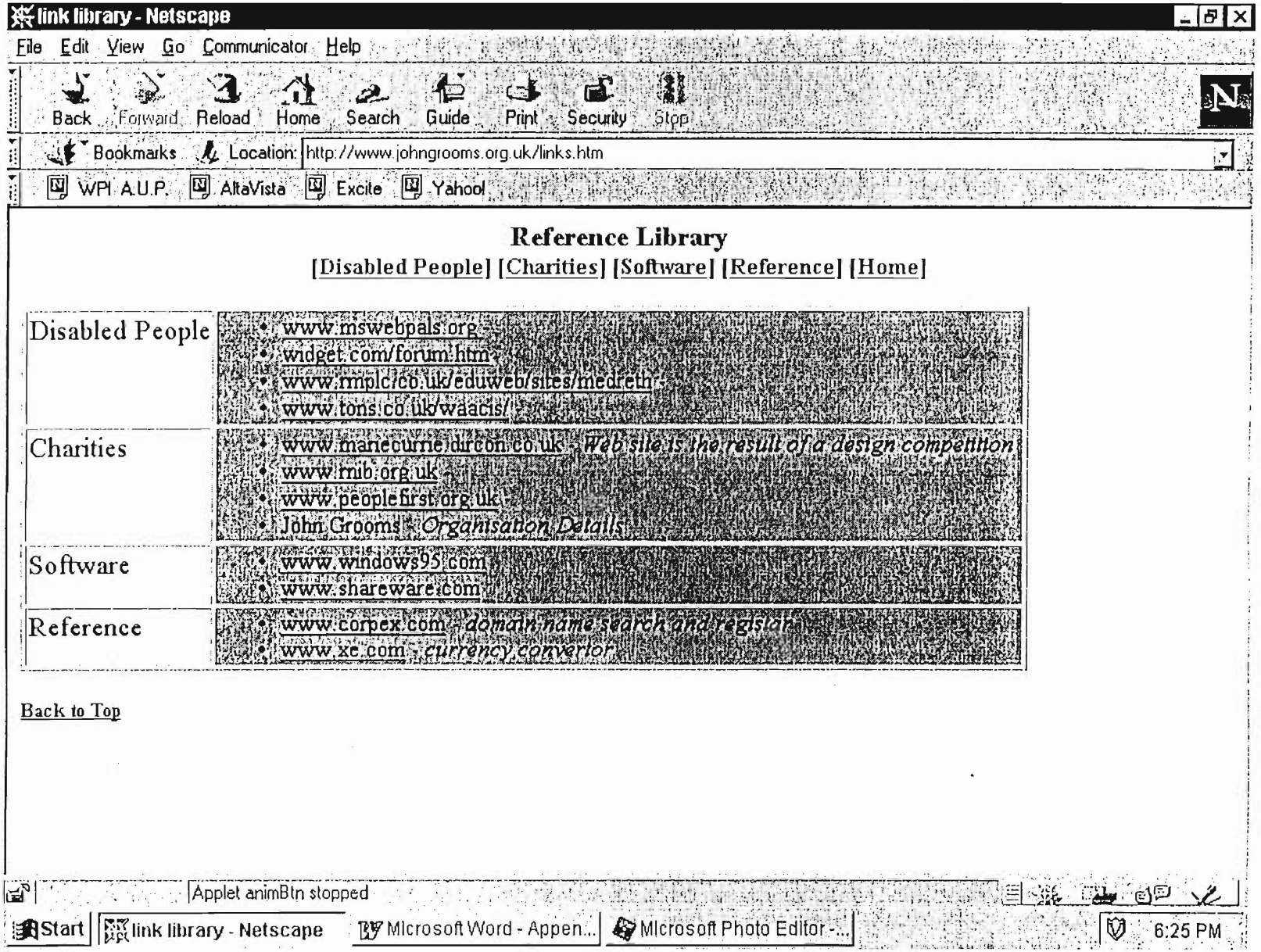


Appendix B.1: John Grooms' Current Web Site – Home Page

Appendix B.2: John Grooms' Current Web Site – Charity


Housing Association - Netscape
File Edit View Go Communicator Help
John Grooms
Housing Association
John Grooms Association for Disabled People
Services
Statement
Design
Management and
Maintenence
The Future
Examples
A Perfect Place
Choosing
Opportunities
Locations
Applying
HOME
OUR MISSION
Independence, dignity and choice of life style. Not much to ask for but sadly, all too often overlooked for the person with a physical disability. As a specialist in the design, construction and management of housing for people with physical disabilities and their families, John Grooms continues to build on its reputation and its expertise, always remembering that disabled people are people first.
Information on these pages is taken from the 1997/8 annual report. For a copy please contact John Grooms at 50 Scrutton Street, London, EC2A 4PH Tel: 0171 452 2000 Fax: 0171 452 2001.
Introduction
John Grooms is now recognised as the leading provider of wheelchair standard housing and as an enabler for disabled people to become more socially active citizens. With our roots firmly secured in the Christian faith, we are responding to a significant group of people in today's society and the last year has been particularly active. We have created a section to develop and promote new opportunities in shared ownership and "smart" housing, and are now investing money into research to establish the level of need in areas where this is unknown. In conjunction with this, a review of our existing partnerships with local authorities and housing associations is currently being undertaken to enable us to be more strategic in the partnerships we form and to evaluate and increase their effectiveness. With 70 successful partnerships already established we are convinced this continues to be the way ahead for us to meet the needs of people seeking
Document: Done
Start
Housing Association - ...
Microsoft Word - Appen...
Microsoft Photo Editor -...
6:17 PM


John Grooms - A Tradition of Care - Netscape
File Edit View Go Communicator Help
1866 - 1996
Back
John Grooms is a Christian-based association working in partnership with disabled people to improve their quality of life, to maximise their freedom of choice, to respect their dignity at all times, and to achieve a level of independant living appropriate to their needs and desires.
John grooms helps disabled people to realise their potential.
1866 - 1996
John Groom was just 21 years old when, in 1866, he was struck by the plight of the street slum children in the City of London. They were, he said, "a disgrace to our civilisation", and he determined to do something about it. John Groom was unique. A committed Christian, he was "able to absorb the sorrows and wrongs of others as though they were personal - seeing the difficulties, cost and labour which must be met to right existing wrongs." John Groom began to do just that - to attempt to put right the terrible situation of the children, particularly the young disabled girls whose plight was worst of all, and enable them to become self-supporting by supplying materials to make and sell artificial flowers as well as accommodation, food and clothing.
John Groom was years ahead of his time in recognising the need for disabled people to contribute to their own support and the boost that this would give to their self respect. Hundreds of young girls were soon producing hand-made cotton flowers and by the first decades of this century these flowers made by John Grooms Flowergirls were well known and found across the country at exhibitions and and special events such as Alexandra Rose Day, Ascot and Epsom Races.
Applet animBtn stopped
Start
John Grooms - A Tradi...
Microsoft Word - Docu...
Microsoft Photo Editor -...
6:20 PM

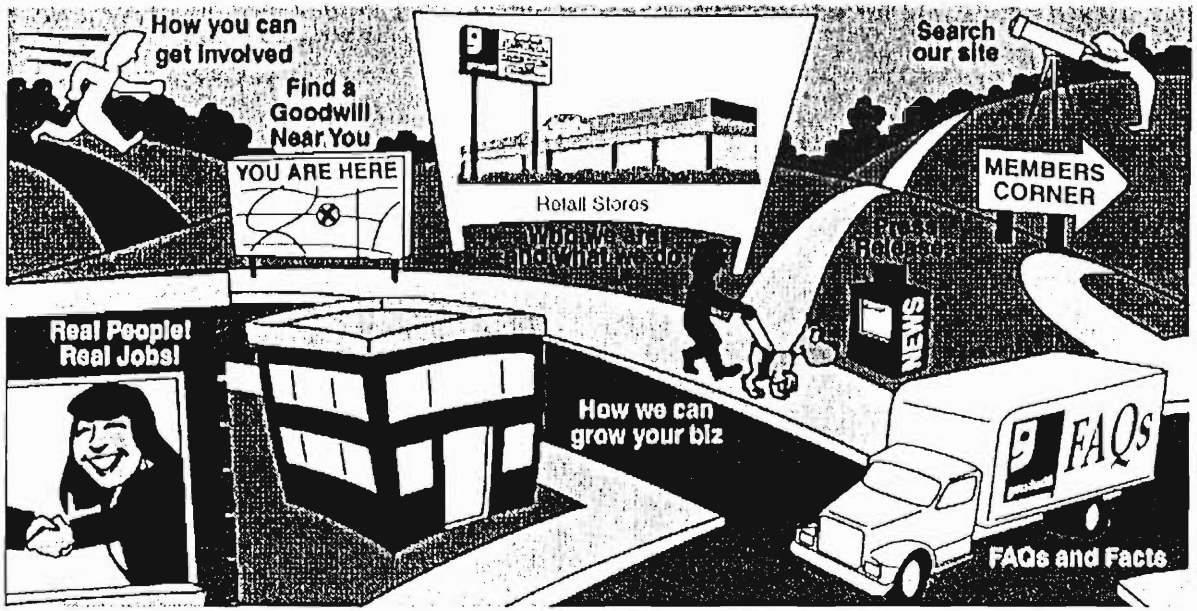

link library - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Guide Print Security Stop
Bookmarks Location: http://www.johngrooms.org.uk/links.htm
WPI A.U.P. AltaVista Excite Yahoo!
Reference Library
[Disabled People] [Charities] [Software] [Reference] [Home]
Disabled People
www.mswebpals.org
widget.com/forum.htm
www.rmplc.co.uk/eduweb/sites/medreth
www.tons.co.uk/waacis/
Charities
www.mariecurrie.dircon.co.uk - Web site is the result of a design competition
www.mib.org.uk
www.peoplefirst.org.uk
John Grooms - Organisation Details
Software
www.windows95.com
www.shareware.com
Reference
www.corpex.com - domain name search and registration
www.xe.com - currency convertor
Back to Top
Applet animBtn stopped
Start
link library - Netscape
Microsoft Word - Appen...
Microsoft Photo Editor -...
6:25 PM

Goodwill Industries International - Netscape

File Edit View Go Communicator Help

Welcome to Goodwill Industries!

One of the world's largest and most successful providers of employment and training services for people with disabilities and other barriers to employment.



About Goodwill Industries | Find a Goodwill Near You | How We Can Grow Your Business | How to Get Involved | Press Releases | Facts and FAQs | Real People. Real Jobs. | Search Our Site | For Members Only

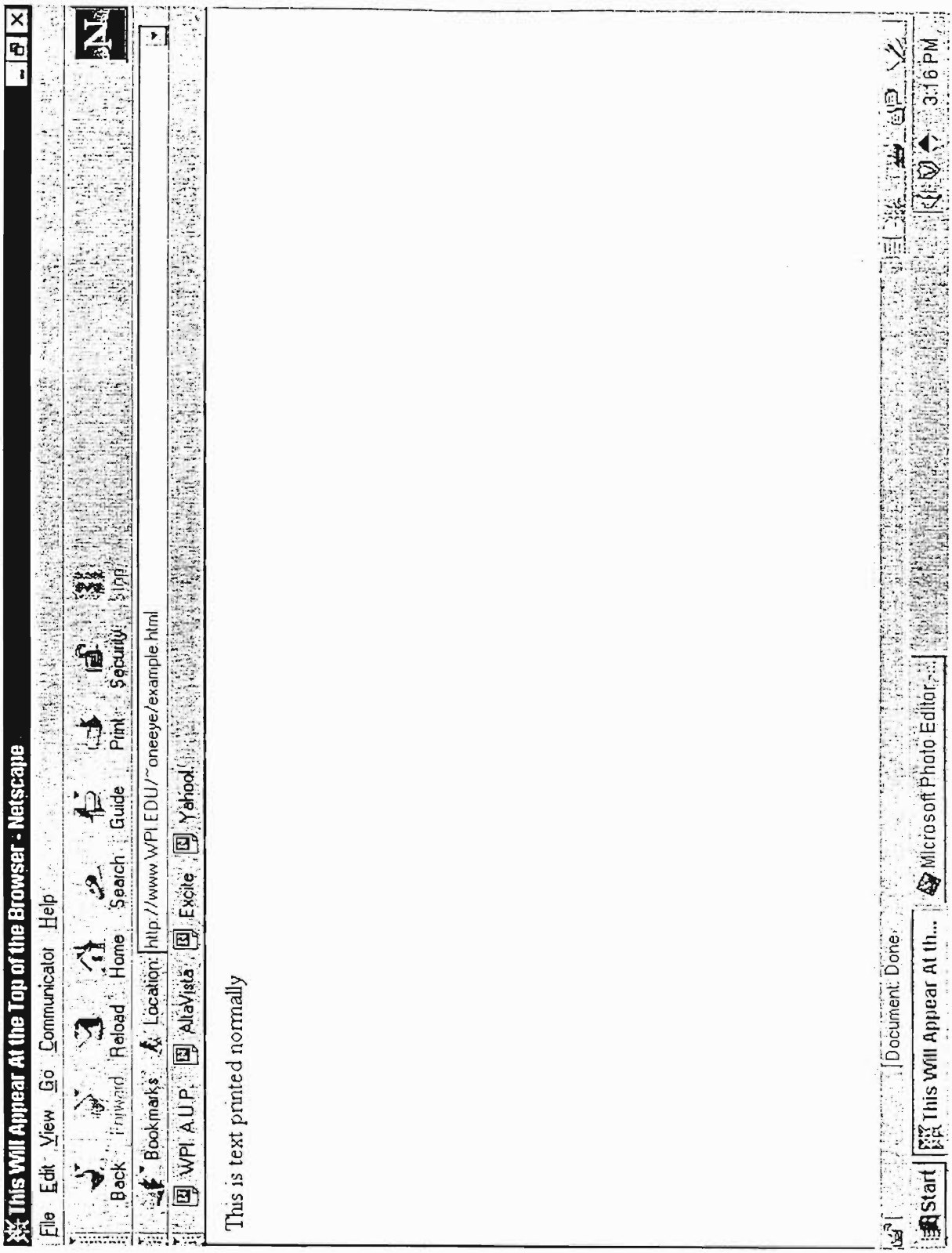
Our Business Works. So People Can.

1997 Annual Report

Document: Done

Start | Goodwill Industries Int... | Microsoft Word | Microsoft Photo Editor -... | 6:28 PM

Appendix D.1: Normal Text Example



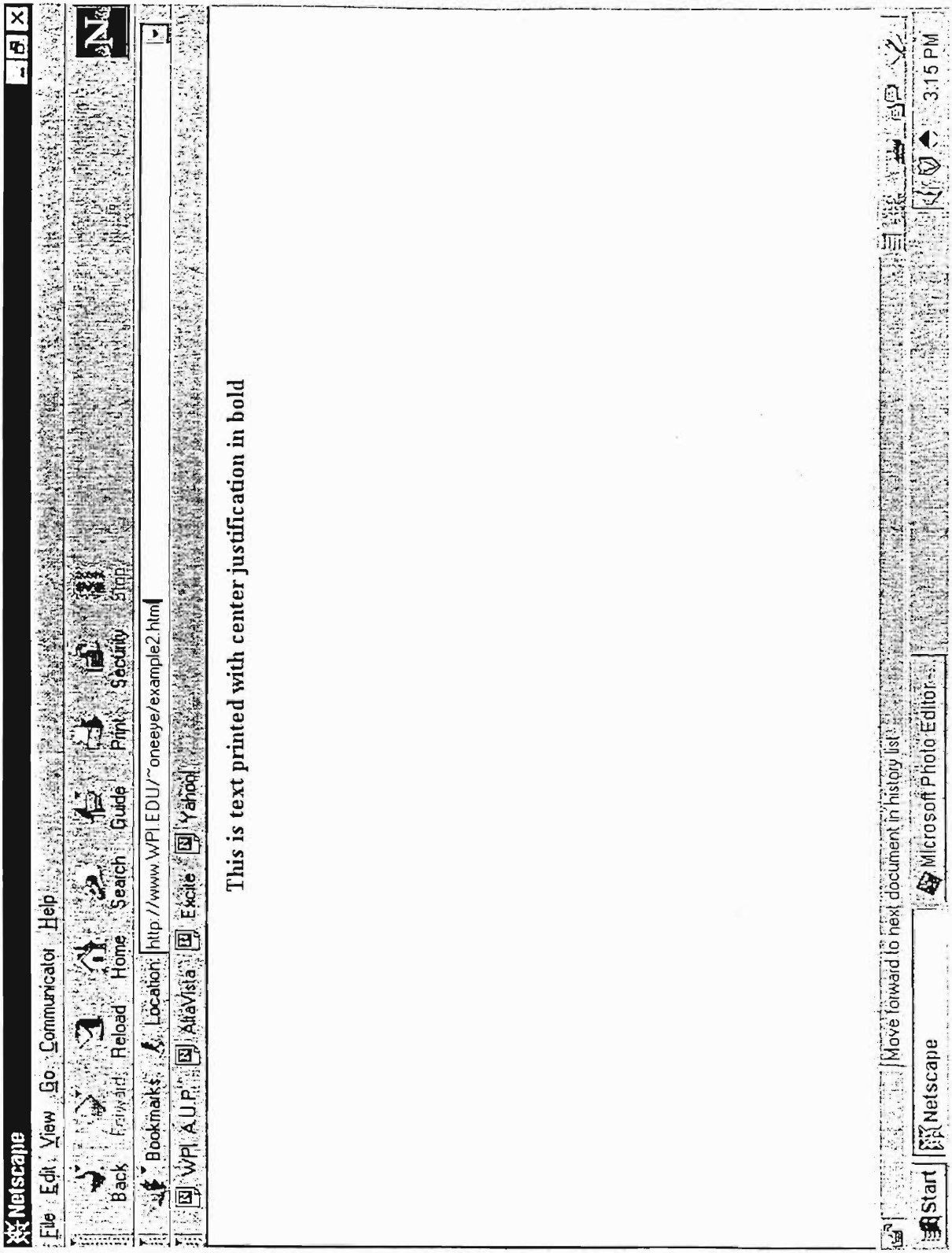
Appendix D.2: Normal Text HTML

Source of: http://www.WPI.EDU/~oneeye/example.html - Netscape

```
<HTML>
<TITLE>This Will Appear At the Top of the Browser</TITLE>
<BODY>
This is text printed normally
</BODY>
</HTML>
```

Start | This Will Appear At the ... | Microsoft Photo Editor -... | Source of: http://www.... | 3:17 PM

Appendix D.3: Centre and Bold Text Example



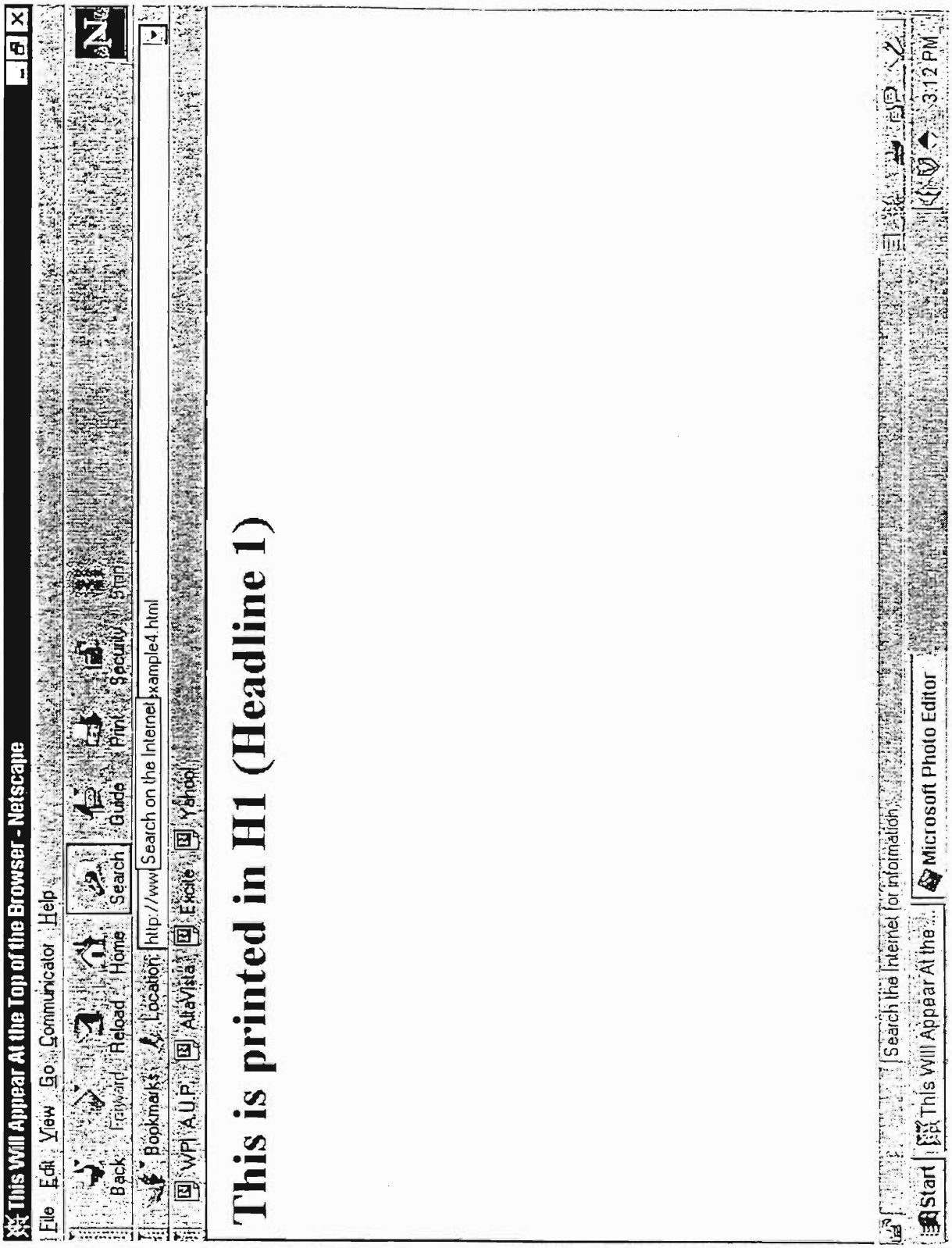
Appendix D.4: Centre and Bold Text HTML

Source of: http://www.WPI.EDU/~oneeye/example2.html - Netscape

```
<HTML>
<BODY>
<CENTER><B>This is text printed with center justification in bold</B></CENTER>
</BODY>
</HTML>
```

Start | Netscape | Microsoft Photo Editor -... | Source of: http://www.... | 3:15 PM

Appendix D.5: Headline 1 Example



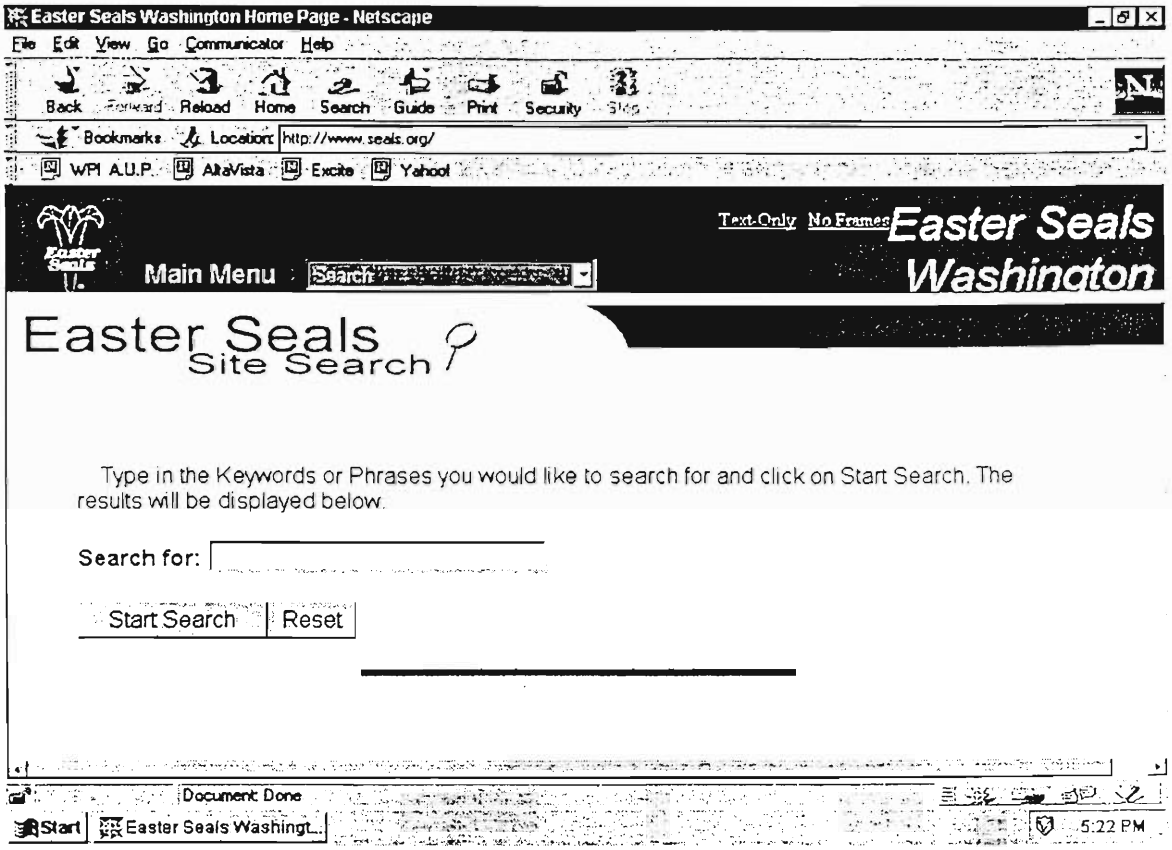
Appendix D.6: Headline 1 HTML

Source of: http://www.WPI.EDU/~oneeye/example4.html - Netscape

```
<HTML>
<TITLE>This Will Appear At the Top of the Browser</TITLE>
<BODY>
        <H1>This is printed in H1 (Headline 1)</H1>
</BODY>
</HTML>
```

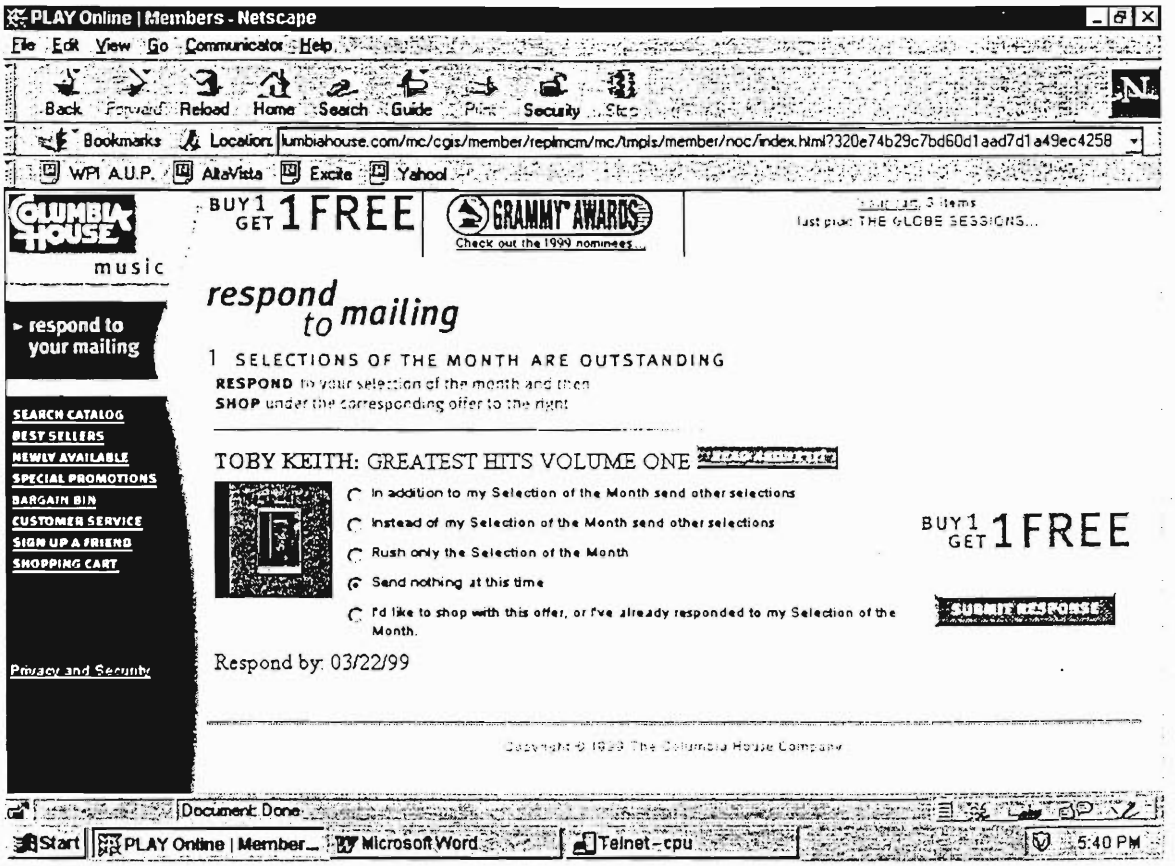
Start | This Will Appear At the ... | Microsoft Photo Editor -... | Source of: http://www.... | 3:14 PM

Appendix E.1: Textbox Example



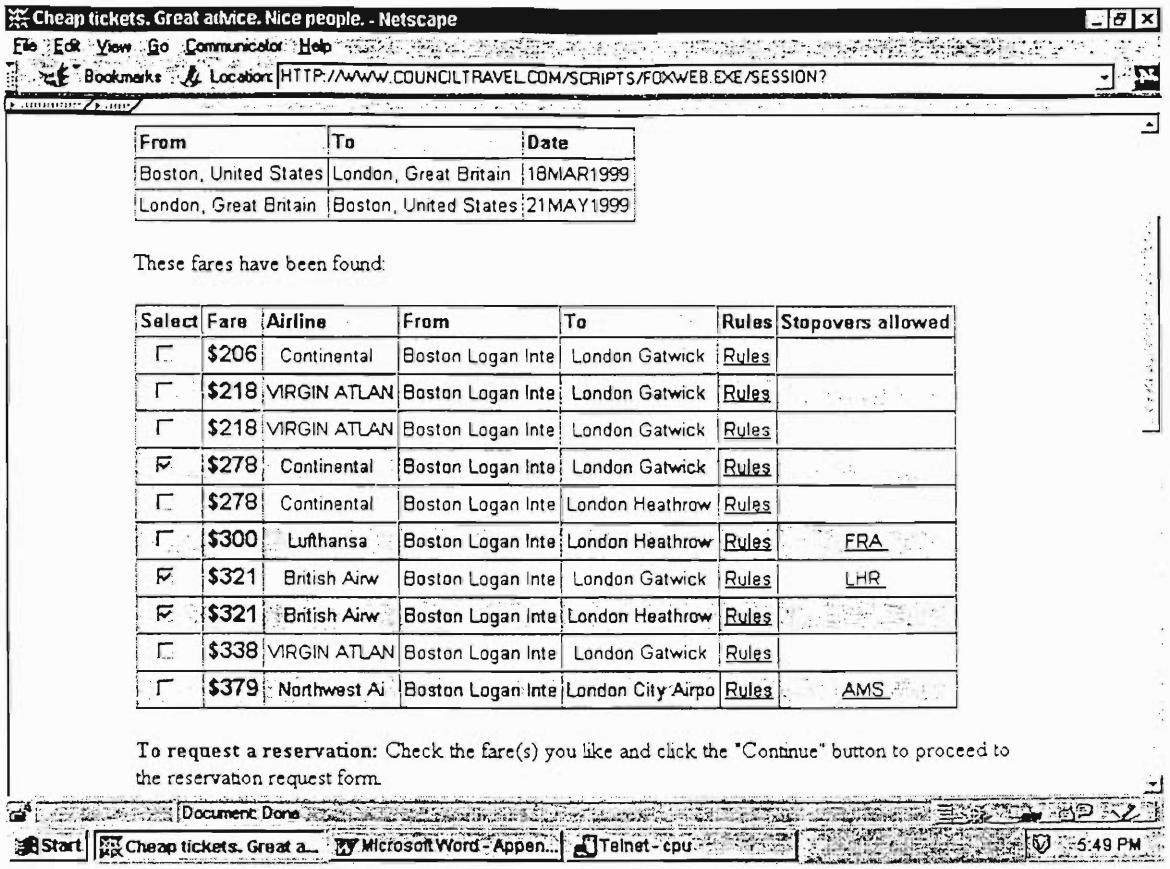
This page demonstrates the use of a text box. To use a text box, users simply click on the empty white box to the right of the words "Search for:", then begin typing text by using the keyboard. When finished entering text users click the "Start Search" button to begin searching the web site.

Appendix E.2: Radio Button Example



This page demonstrates the use of radio buttons. If the user clicks on one of the small circles to the left of the choice selection text, it will display a dot in that circle. The principal idea behind radio buttons is that only one of the buttons may be selected at a time.

Appendix E.3: Check Box Example



This page shows an example of checkboxes. If the user clicks the small white square on the left side of the table a checkbox will appear in it. This indicates that the box has been selected. IF it is clicked again, the checkmark is removed.

Appendix F.1: Contact With Liaison

January 25, 1999

Up until this point we have contacted our liaison, Beth Arnold, on two separate occasions via email. She has recently returned from maternity leave, and is currently working out of her home. She provided us with her email address and telephone number at home, so that we can contact her again in the future. In our first email, we introduced ourselves and stated our project goal, as we understand it. In our second email, we updated our liaison in regard to the progress we had made on our literature review. In addition to this, we asked for feedback concerning specific aspects of the web site that she felt were in most need of re-structure and redesign.

February 11, 1999

We contacted our liaison at John Grooms (Beth Arnold) on Wednesday morning at 9:00. We outlined our proposal for her and mentioned that we planned on setting up small focus groups in each department so that we could gather feedback on suggested improvements to John Grooms' current web site. Our liaison agreed that this was a good idea and said that we shouldn't have any difficulty contacting directors and managers to participate in these discussions once we get to London. We also discussed computer access and our liaison said that John Grooms would provide us with a computer.

February 18, 1999

We contacted our liaison at John Grooms (Beth Arnold) on Thursday morning at 11:00. We outlined our final proposal for her and gave her the opportunity to comment. We also reviewed the list of directors and primary managers that she has emailed us for grouping the directors and managers so that related departments would attend the same focus group session.

Appendix G.1: Web Site Server

Corpex

www.corpex.com
Phone number: (+44) 0171 242 4555
Fax number: (+44) 0171 242 4666

I. HTML – An Overview

HTML or Hypertext Mark-up Language is the language that is used to actually create web pages. Web page designers must use HTML (or a web design program, such as Front Page 98, that uses HTML) to design their web pages.

In order for a web page to be viewed on a computer, the user must own a piece of software called a web browser. It is the job of the web browser to read the HTML code and convert it to a format that is easily readable by people. The two main web browsers are Netscape Navigator and Microsoft Internet Explorer. While these two browsers are becoming more and more alike each year, they both have very slightly different interpretations of HTML and during web page design it's a good idea to view the web pages being made with both browsers.

II. Command Words

The actual syntax to HTML may look a bit daunting at first, but after reading this guide and by working with it more and more it will become second nature. The first aspect of HTML that will be discussed is command words. Command words tell the browser key information about the look and feel of a web page. For example, if web designers would like a section of text centred they would use the command word CENTER (HTML generally uses the American spelling of words). Now, command words must be enclosed within greater than, less than signs (i.e. < >). Also, once a command word is used (or opened), it must be closed after its function has been performed with a slash (i.e. </ >). For instance, an example of HTML code which would cause text to be bolded would look as follows:

```
<CENTER>Text goes here</CENTER>
```

Notice that the command CENTER is enclosed in greater than, less than signs and that it is opened (<CENTER>) and closed (</CENTER>). This will ensure that any text, images, etc. inserted after the </CENTER> will not be centred.

There are several different commands in HTML, each of which performs a different function. Some will be discussed in this guide as we encounter them.

III. General Page Set-Up

Every web page created must be contained within the command word HTML. The first line of any web page should be <HTML> and the final line should end with the closing of this command </HTML>. Within the HTML command word, most web pages are divided into two major sections called the head and the body. Every web page software tool (such as Front Page 98) will automatically include the HTML, HEAD and BODY tags when first creating a web page.

The HEAD of a web page generally contains information about the web page itself, such as its TITLE and META tags. The TITLE keyword must be opened and closed as is the case with any other command, and within the open and closing of it the title of the web page should be written. The title of a web page shows up at the very top of the users browser (generally inside the blue bar at the top) whenever a user opens that page. An example of a TITLE on the John Grooms web site is:

```
<TITLE>John Grooms - Working with Disabled People</TITLE>
```

This will provide that the text (i.e. John Grooms – Working with Disabled People) will be written at the top of the browser (examine this by going to John Grooms home page at www.johngrooms.org.uk).

Aside from the TITLE and META tags, the BODY contains the rest of the information on the web page. This will include text, images, tables, certain scripts and just about anything else one could ever imagine seeing on a web page. The BODY tag is started just after the HEAD tag ends, but again, the web design software should do this.

IV. Links

Links essentially are just text or images that allow the user to navigate from one web page to another. The most common type of link is a text link. This appears as a word or group of words that is usually underlined. To create a text link the A keyword in accordance with the HREF keyword must be used. To create a link follow along with the following example:

```
<A HREF="address_of_your_link.htm">Type text here</A>
```

Notice that the link was opened with (<A HREF=). After the equal sign (=) the address of the web page that the link is pointing to must be entered within quotation marks (i.e. "address_of_your_link.htm") and finally it all must be ended with a greater than sign (>). It is also good to note that the address entered within the quotation must all be one word with no spaces. It is commonplace to replace spaces with underscores (_) as was shown in this example. After the link has been opened text which describes the link may be entered. There are no restrictions placed on this text. For instance, spaces may be inserted and different fonts may be used. After the text describing the link has been entered, the link must be closed by simply adding the tag </A>. This will finish the link and text, images, etc. may be added as needed. For information on using images as link, please see the section on **Images**.

V. Images

Images may be inserted by using the keyword IMG followed by the keyword SRC. In order to insert an image into the web page simply follow the guideline below.

```
<IMG SRC="image.jpg">
```

An image tag only needs to be opened, it does not need to be closed. Within the quotation marks is contained the file name of the image itself (in this case it was called image.jpg).

To make a picture into a link simply enclose an image tag (much like the one above) in the opening and closing of a link. For example:

```
<A HREF="name_of_your_link.htm"> <IMG SRC="image.jpg"></A>
```

This will allow the user to click on a picture and follow whatever link was desired.

It is also worthy to note that when a web page is created by a piece of web development software, the software often adds information about the height and width of the image. This is not necessary when inserting an image, and is only done as a strict precaution. However we will include an example here to use as a reference.

```
<IMG SRC="image.jpg" height="200" width="155">
```

Here the height and width of the image are merely included (in pixel size) within quotation marks and followed by the keywords height and width, then an equal sign (=).

VI. Tables

Tables are both one of the most useful aspects to web page design, and one of the most frustrating. It is very difficult to construct a table by simply typing HTML and it is suggested that the user utilise a piece of web development software. Tables are very useful because they make it much easier to improve the appearance of a web page by allowing the web page designer to properly place images and text along side each other, and to correctly space the areas between each. However, it can often be frustrating trying to get all aspects of the table to work together.

Tables are formed by using the <TABLE> tag. Within the TABLE tag width and height of the table may be specified. Other attributes of the table, such as CELLSPACING, CELLPADDING and BGCOLOR (which stands for background colour) may be included within the table tag.

Tables are divided into sections called rows, which are horizontal, and columns, which are vertical. The tag used with rows is <TR>. To start a row it must be opened by using the <TR> command, and once a row is ended it must be closed with </TR>. Within rows the designer will want to add columns, which utilise the <TD> tag. Bellow is an example of a table consisting of 2 rows and 3 columns:

Cell 1	Cell 2	Cell 3
Cell 4	Cell5	Cell 6

The HTML which would generate such a table would look like this:

```
<TABLE CELLSPACING=3 BGCOLOR="#C0C0C0">
    <TR>
```

```
            <TD>Cell 1</TD>
            <TD>Cell 2</TD>
            <TD>Cell 3</TD>
        </TR>
        <TR>
            <TD>Cell 4</TD>
            <TD>Cell 5</TD>
            <TD>Cell 6</TD>
        </TR>
</TABLE>
```

As can be seen, the attributes to the table which made it appear grey were dictated by BCOLOR, the reason for the distance between each of the cells was through the CELLSPACING property. There are 2 different <TR> tags, representing 2 rows, and there are 3 <TD> tags within each <TR> tag representing the 3 columns within the rows. Regular text, images, etc. may be simply entered in within the <TD> tags.

VII. Spacing: Paragraphs and Page Breaks

When attempting to change spacing between text it is important to note the when writing HTML, pressing the <enter> key on a line will not deliver the desired results. HTML does not interpret the <enter> key as a text editor does, it simply disregards it. In order to insert a space (a carriage return which would appear in a browser as a double space), the <P> tag must be used. For example if the designer wanted to include text on a web page that appears like this:

This is sentence one.

This is sentence two.

The HTML would need to appear like this:

```
<P>This is sentence one</P>
<P>This is sentence two</P>
```

The <P> tags must be opened and ended to complete a paragraph. (It is also important to note here that web designing software will usually include these paragraphs on its own and users will not need to worry about them when using the software, unless they plan on directly changing the HTML code).

In order to perform a carriage return with single spacing instead of double spacing the <BR> tag is used. Unlike the <P> tag, the <BR> tag only needs to be opened, it is not necessary to close it.
If the designer wishes to add text that appears like this:

This is sentence one.
This is sentence two.

The HTML would need to appear like this:

This is sentence one.

This is sentence two.

VIII. General Computing Information

Files and Folders

The John Grooms web site is comprised of a number of different files (such as images, CGI scripts and web pages), which are stored in a number of different folders (such as the housing, charity and holidays folders). The folders serve a double purpose. First, they prevent the site from becoming cluttered and difficult to understand. The John Grooms web site has over 100 web pages, if they were not separated into folders it would be extremely difficult to manage all of the pages. The second benefit of using folders is that it is easier for the computer user to get to the information they need more quickly. For instance, if a person is interested in gathering information on Grooms Holidays, the simply need to type www.johngrooms.org.uk/holidays. This will direct them to the information they desire more quickly.

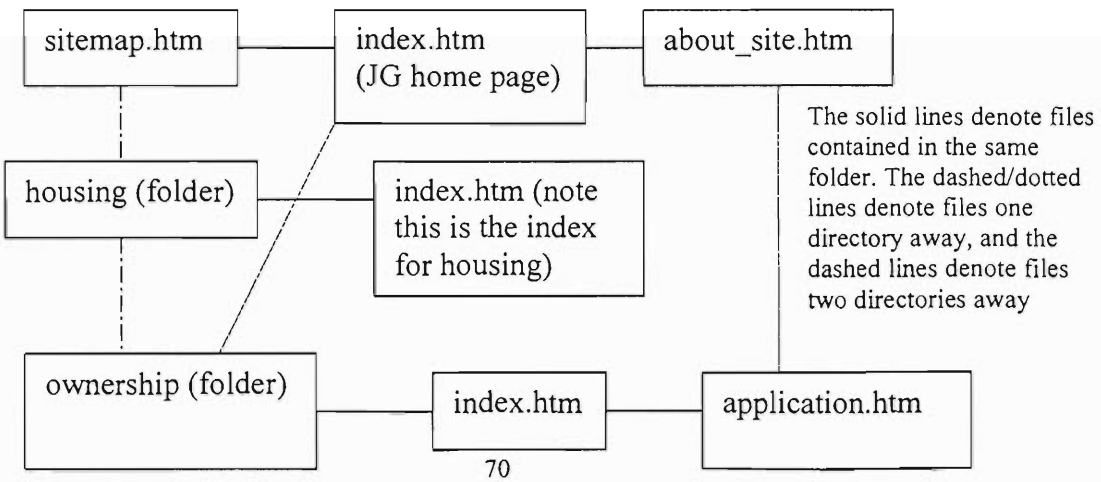
When updating the pages and creating new ones it is of the utmost importance that careful attention is paid to keeping track of what folder the web page is in, and which folder the information to be gathered can be found. All of the images on the John Grooms web site are contained in the images directory. This must be remembered when inserting images into web pages. For instance, if a picture is to be added to the first page in the web site, the designer would use the following tag:

<IMG SRC="images/name_of_image.jpg">.

The web browser will then understand to look in the images folder for the picture. Likewise, if a user were to add a link on the first web page the tag

<A HREF="/housing/shared_ownership.htm">

One of the main difficulties when working with folders is realising that files stored in different folders must be dealt with differently than information stored in the same folder. Folders can be thought of as a hierarchy (see the diagram below). The most difficult aspect of working with files and folders is remembering which folder the web page is actually located in, and how to get to a different folder from there. For instance, if a web page is located in the housing folder, and the designer



wishes to insert a link from the index of the housing folder to the application.htm page within the ownership folder, the link appears as follows:

<A HREF="ownership/application.htm">

The link must first point to the ownership folder, then to the application.htm file within that folder. The process of changing files differs a bit when the designer is traversing down the folder hierarchy. For example, if the designer was designing a link within the application.htm page (within the ownership folder), and wished to have that link point to the about_site.htm page in the main folder, the designer would have to use a '../' for each directory that needed to be traversed. For example, since application.htm is within the ownership folder, which in turn is within the housing folder, if the designer wished to create a link to the about_page.htm file it would look as follows:

<A HREF="../../about_page.htm">

The two sets of '../' are used to traverse back to the main folder which contains the about_page.htm file.
It is important to note that not only links are dealt with in this manner. Images, scripts and any other type of file must follow this format if they are to be used in folders different from their own.

IX. Forms

There are several places within the John Grooms web site in which users are allowed to enter in information which is then relayed to John Grooms via e-mail. These pages contain forms that allow the user to enter information using text boxes, tick boxes and drop down lists.
The John Grooms web site uses a CGI program called FormMail.cgi to take the information filled out in a form and e-mail it to an e-mail address within John Grooms.

Forms can easily be made using web design software such as Front Page 98. Generally the designer simply needs to point and click to insert form 'fields' such as text boxes and tick boxes. The forms are then e-mailed by allowing the user to click a button at the bottom of form entitled submit. Two good examples of form pages are:

www.johngrooms.org.uk/comments.htm
www.johngrooms.org.uk/housing/tenants/service_centre.htm

After designers have finished designing the form using the web design software they must then directly change the HTML. This may be accomplished either by entering the HTML using the web design software, or by simply opening the web page up in a text editor such as Note Pad. The designer should then find the HTML tag that contains the word FORM (this can be done quickly by performing a search for the

word form). Once the FORM tag has been located it should be changed to look like this:

```
<form action=".FormMail.cgi" method="POST">
```

*Important Note: This is how the tag would appear in the main directory (for example, in comments.htm) However, if the web page containing the form is not in the main directory the '../' must be used to inform the web browser where to look for the CGI script. For example the service_centre.htm page is located in the housing/tenants directory, so its tag looks like this:

```
<form action="../../FormMail.cgi" method="POST">
```

It should also be noted that the tag which closes the form </FORM> does NOT have to be modified.

Directly underneath the form tag the following HTML tags should be included:

```
<input type="hidden" name="recipient" value="housing@johngrooms.org.uk">
<input type="hidden" name="redirect" value="/housing/tenants">
```

The text entered on the first line after value denotes the e-mail address that the information included in the form will be sent to. The text on the second line after value denotes the next web page within the John Grooms site that the user will be lead to after he or she presses the submit button.

It is also worth mentioning that if the form contains information entered in by the user regarding his or her name and e-mail address that the following tags should be used:

```
<input type="text" name="realname" size="20">
<input type="text" name="email" size="20">
```

This will ensure that when the e-mail is delivered to the address at John Grooms, it will quickly display the name of the person sending the e-mail and their e-mail address. (Note the number after size may be changed).

X. FTP (or Fetch)

In order to make new pages (or changes to old pages) available over the Internet it must be uploaded onto Corpex's site using a programme called FTP (or sometimes referred to as Fetch with Macintosh users). This programme is readily available over the Internet and is often included on most computers. A good place to find a free download of an FTP program is at www.cuteftp.com
The FTP address for John Grooms' web site is ftp.johngrooms.org.uk Typically, FTP programmes will display information concerning the actual computer the user is operating (such as drives like A:, C:, D:, etc. and the files and folders contained within these drives.) and information concerning the files and folders contained on the FTP site (in this case John Grooms' FTP site on Corpex). The users then simply click on the file they would like to upload to the web site and drag it into the correct folder on the FTP site. That's it! The files are then readable to anyone who has access to the Internet and knows the web site's address.

XI. HTML Commands

	Instructs the browser to indent or space in from the left.
"	Instructs the browser to show double quotes (") in the text.
<a href="">	Creates a link to a separate web page.
<align>	Instructs the browser to horizontally align text (left, right, centre).
<alink=>	Allows an author to change the colour of an active link (usually red).
<alt=>	alt tag
<b>	Instructs the browser to bold for the enclosed text.
<bgcolor=>	Instructs the browser to display a background colour to a page or cell.
<big>	Instructs the browser to use text one size bigger than the current size, on a scale of 7.
<i>	Instructs the browser to use italics for the enclosed text.
<body>	The portion on a web page which will display in the web browser.
 	Inserts a line break without ending a paragraph. This allows you to start a new line without having the extra space between lines.
	Specifies that the browser emphasises the enclosed text. It is rendered in italics by most browsers.
<head>	The part of the web page where the browser looks for the title of a page.
<img src=>	Instructs the browser to display a picture.
	Microsoft's way of instructing a browser to use bullets, both number or dot varieties.
<p>	Instructs the browser to create a new paragraph.
<small>	Instructs the browser to use text one size smaller than the current size, on a scale of 7.
	Instructs the browser to strongly emphasise the enclosed text. It is usually rendered in boldface while is simply emphasise.
<table>	Instructs the browser to create a table in which will be specified information.
<td>	Specifies table data (default is normal text, left aligned).
<th>	Specifies table heading (default is bold, centred)
<tr>	Creates a row in a table.
	Generates bullets for unordered text (i.e. is not numbered).
<u>	Specifies that the enclosed text should be underlined.
<valign>	Instructs the browser on how to vertically align information (top, middle, bottom)
<vlink=>	Instructs the browser to use a specific colour for a visited link.

Appendix I.1: Focus Group Sessions

All three group members were present at all of the focus group sessions. At each of these sessions, one person served as the primary facilitator of the discussion while the other two recorded the content of the discussion.

Feedback from Regional and Unit Managers

*Jane Ackroyd, Research and Development Facilitator
*Richard Hale, Regional Manager (East)
*Stuart Hopking, Home Nursery Manager
Veronica Kelly, Regional Manager (West)
*Stephen Springer, Regional Manager (Holidays)

* Attended discussion session after presentation at **12:00pm on 23 March 1999 at Head Office** location in main conference room.

In order to accommodate the schedules of managers at locations remote from the Head Office, a discussion group was formed with four of these managers in order to obtain input for the redesigned web site. The manager from HOPE Nursery, Stuart Hopking, discussed his desire to have an online catalogue of the available plants at the nursery. There is currently a published catalogue of approximately 14 pages in length that he would like made available through the web site. The intended audience for this portion of the web site is potential purchasers who may not necessarily be aware of the other aspects of John Grooms. Therefore, navigation from the John Grooms Home Page to the HOPE Nursery pages of the site must be clear. The online catalogue must be easily updateable and an email/phone contact for ordering must be provided. The facility for secured online ordering is a future goal for the HOPE Nursery web page. According to Hopking, the site should encourage an increase in generated revenue through purchases from HOPE Nursery

The manager from Grooms Holidays, Stephen Springer, expressed the desire to have the 1999 Holidays brochure available on the web site in order to promote marketing of the holiday accommodations available from Grooms Holidays (a subset of the Charity). Each of the three hotels, 19 self-catering units, as well as the boating facility should be represented with text descriptions and pictures on the site. Springer also mentioned having a link with the English Tourist Board and Tomorrow's Tourism, which provides funds for web sites that advertise these types of accommodations. The intended audience for this aspect of the web site would be mainly disabled people and their families.

Jane Ackroyd, the Research and Development Facilitator, discussed the importance of ensuring that the public (specifically those that visit the web site) have a positive attitude about John Grooms. She sees the intended audience as being both disabled people as well as the general public. Therefore, the web site should serve as an invitation to John Grooms. Essentially, "If you need help with a service, come here..." The web site should include a list of the available services, accompanied by brief descriptions of each.

An Eastern Regional Manager, Richard Hale, discussed several aspects of the Charity that he would like well represented on the web site. These include Nursing Homes and Residential Care Units, Overseas Work, Icanho Rehabilitation Centre, and the Community Care Agencies. (These were all present on the previous web site, to some degree, but should be better represented in the new site).

The Western Regional Manager, Veronica Kelly, was interviewed over the phone on 25 March 1999. In general she perceived the goal of the web site as a means to strengthen public relations and increase fundraising. In terms of her department, she would like the web pages to focus on church and academic groups in her region interested in volunteering to be able to contact her and be updated on the events going on within the organisation.

Emma Swinyard-Alston, an Eastern Regional Manager, was interviewed over the phone on 1 April 1999. She was interested in being included in the Events Bulletin Board. She referred us to Moira Langford, who is employed at the Head Office, in order to obtain an accurate list of the current volunteer and fundraising events going on.

Focus Group 1 (Housing Association)
2:00pm, Tuesday 23 March 1999, Head Office

Alain Forbes, IT Manager
David Harmer, Chief Executive
Bill Phillips, Director of Finance
Mike Wilton, Maintenance Manager

During this focus group discussion, the first critical point that was addressed (by David Harmer) was that the Housing Association is *not* a subset of the Charity and, therefore, must be represented equally on the web site. The goal of the site is to increase public relations, raise the organisation's profile, and increase financial support. In addition, the web site must encourage tenant involvement – both current and future tenants. Thus, from the Housing Association's perspective, the intended

audience includes corporate partners, housing authorities, potential donors, and tenants. Specifically, the web site must include information regarding the different types of housing options – rented housing, shared ownership, and "smart" housing; the Housing Association's involvement with charities such as Headway Association and Parkinson Disease Society; partnerships and local authorities; and a tenant bulletin board.

Focus Group 2 (Charity)
2:00pm, Wednesday 24 March 1999, Head Office

Michael Shaw, Executive Director
Raj Thaker, Systems Accountant
Andrew Whitehead, Finance Director
Bob Twitchin, Client – Disability & Communications Consultants (interested in evaluating final web site)

During this focus group session, several aspects of the web site were discussed. The intended audience for the site is considered to be primarily disabled people and financial donors. Therefore, information regarding both available services and fundraising should be present on the new web site. In order to encourage donations by both the corporate and private sectors, secured donations as well as mail-in gift aid forms should be made available on the site. In addition, a summary of the Charity's financial report should be available on the site as well as the ability to request the full financial report. Other aspects of the site that were discussed include accessibility of the web site through a text-only option and the facility for users to provide feedback, increasing the interactivity of the site.

Focus Group 3 (Charity)
10:30am, Thursday 25 March 1999, Head Office

Sarah Bissell, Fundraising
Joe Crosbie, Direct Marketing
Russell Marriott, Capital Appeals Director
Guy Oddy, Trust Fundraiser
Kate Reeves, Campaigns

During this focus group the two main objectives of the web site were determined to be: (1) strengthen public relations, and (2) generate more revenue. In response to the latter objective, the major topic of discussion was secured online donations. The capability of making donations directly online was greatly preferred

to a printable mail-in form. Russell Marriott is currently working on an appeals campaign (called the Capital Appeal) that has a separate web site which can support secured online donations. Therefore, the possibility of linking John Grooms' web site and the Capital Appeals web site was discussed. However, it was agreed that in order to ensure consistency (in terms of overall site layout) it would be best to have John Grooms' web site secured separately. In terms of the Fundraising and Marketing departments involved in this focus group, the intended audience for the web site is potential donors – corporates, trusts, and individuals, both existing and new.
A link with the Make a Will web site (*www.make-a-will.org.uk*) was also suggested.

Focus Group 4 (Housing Association)
10:00am, Friday 26 March 1999, Head Office

Mark Ford, Housing Manager
Davina Long, Research and Development Officer
Bob Souster, Development Manager
Claire Stogden, Corporate Support Manager

During this focus group, the intended audience of the web site was identified as tenants – both current and future, local authorities, lenders, and partnership housing associations. The Housing Manager was interested in having a Lettings Bulletin Board which could be easily updated so that all available lettings could be posted on the web site. The web site should also contain information regarding the Housing Association's involvement with other charities, specifically Headway and Parkinson's Disease Society. In order to encourage financial support for the various housing projects that the organisation is involved with, there also should be a link from the Housing Association to the secured donations page. John Grooms is a Christian-based organisation and information regarding work done in collaboration with church groups was recommended as possibly being included in the new web site as well.

Focus Group 5 (Charity)
2:00pm, Friday 26 March 1999, Head Office

Rachel Engel, Events Manager
Phil Hodgins , Human Resources
David Newnham, Director of Services and Development

Rachel Engel, the Events Manager, is interested in having an Events Bulletin Board that can be frequently updated on the web site. The page will contain information regarding the current events and contact information for interested volunteers. Phil Hodgins from Human Resources mentioned having an Employment and Training Page which could be frequently updated and would contained advertisements for employment opportunities through John Grooms. David Newnham, the Director of Services and Development, confirmed that the information currently available about residential homes on the web site is still accurate, with little need of revision.

Focus Group 6 (Charity)
10:00am, Tuesday 30 March 1999, Head Office

Karin Weighton, Communications
Keith Wenden, Director of Fundraising and Communications

This focus group contained the two staff members (in addition to our liaison) who will be primarily responsible for the redesigned web site. Thus, their comments encompassed virtually the entire realm of the new site. The Home Page should include links to the following five main aspects of the web site – Charity, Housing Association, Grooms Holidays, HOPE Nursery, and Fundraising. The Home Page should also include a How You Can Help option with immediate links to fundraising, volunteers, and events. Secured payments were also discussed in detail. The facility for secured online donations was a top priority. The ability to reserve holiday accommodations and make HOPE Nursery purchases online should be researched and will be pursued in the future. Tenant publications such as the Access Newsletter and the Tenant Handbook should be available on the web site. In addition, tenants should be able to contact the Maintenance Service Centre through the web site. In terms of the Finance department, a financial summary should be available on the web site as well as the ability to request a full financial report. The web site should also provide a medium to post campaigns as well as public affair issues. A counter should also be included on the site to record the number of people accessing the site as well as specific pages within the site.

Appendix I.2: Evaluation Sessions

Evaluation Group 1 (Housing)
10:30am, Monday 26 April 1999, Head Office

Mike Wilton, Maintenance Manager

Evaluation Group 2 (Housing)
2:00pm, Monday 26 April 1999, Head Office

Bob Souster, Development Manager
Alain Forbes, IT Manager

Evaluation Group 3 (Charity)
4:00pm, Monday 26 April 1999, Head Office

Sarah Bissell, Fundraising
Joe Crosbie, Direct Marketing
Guy Oddy, Trust Fundraiser
Kate Reeves, Campaigns

Evaluation Group 4 (Charity)
10:30am, Tuesday 27 April 1999, Head Office

Rachel Engel, Events Manager
Davina Long, Research and Development Officer

Evaluation Group 5 (Charity)
2:00pm, Tuesday 27 April 1999, Head Office

Karin Weighton, Communications Manager
Caroline Hawkings, Communications Officer
Sally Ross, Production Assistant

Evaluation Group 6 (Charity)
4:00pm, Tuesday 27 April 1999, Head Office

Russell Marriott, Capital Appeals Director
Raj Thaker, Systems Accountant

Evaluation Group 7 (Charity)
10:00am, Wednesday 28 April 1999, Head Office

Keith Wenden, Director of Fundraising and Communication
Andrew Whitehead, Finance Director

Evaluation Group 8 (Charity)
10:00am, Thursday 29 April 1999, Head Office

Michael Shaw, Executive Director
Phil Hodgins, Director of Human Resources

Evaluation Group 9 (Housing)
12:00pm, Thursday 29 April 1999, Head Office

David Harmer, Chief Executive
Claire Stogden, Corporate Support Manager

Individual Manager Evaluators

Karen Curtis, Manager, John Grooms Court (Care Homes)
Sheila Flynn, Manager, Treetops Nursing Home
Brenda Golding, Manager, Southend Community Care Homes
Stuart Hopking, Manager, HOPE Nursery
Pam Nicholson, Manager, Icanho – The Suffolk Brain Injury Rehabilitation Centre
Barbara Peach, Manager, Community Care Services
Joan Search, Manager, Dolphin Court (Care Homes)
Stephen Springer, Manager, Grooms Holidays

Client Evaluators

Lee Carter – severe Cerebral Palsy, employee at HOPE Nursery
Roger Firman – blind, works at RNIB, friend of John Grooms employee
Brian Houghton – paralysed from the waist down, former JGHA tenant
Adam King – Cerebral Palsy, John Grooms Court resident
Bob Twitchin – Disability and Communication Consultant, mobility impairment

Appendix J.1: Registered Search Engines

United Kingdom

Brit Index – YACC Labs Limited	www.yacc.co.uk/britind/
Excite UK	www.excite.co.uk
Great British Pages	www.great-british-pages.co.uk
Lycos – UK & Ireland	*www.lycos.co.uk*
Netlondon.com	*www.netlondon.com*
Search UK	*www.searchuk.com*
UK Index	*www.ukindex.co.uk*
UK Max	*www.ukmax.com*
UK Plus	*www.ukplus.so.uk*
Yahoo – UK & Ireland	*www.yahoo.co.uk*

United States

Altavista	*www.altavista.com*
Excite	*www.excite.com*
HotBot	*www.hotbot.com*
Infoseek	*www.infoseek.com*
Lycos	*www.lycos.com*
Yahoo	*www.yahoo.com*