Cambrian Center Website
Enhancement Proposal

Prepared for
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May 26, 2011

Prepared by
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Dear Ms. Bircher:

Thank you for providing our organization, the Cambrian Center (CC) Team from San José State University’s Computer Science Department, the opportunity to submit our proposal for the enhancement project for the Cambrian Center Website. Our goal is to improve your current website with Adults with Disabilities Act (ADA) compliant colors, automating some routine maintenance activities, implementing Google analytics™, adding intuitive navigation menus, a search function, and user selected variable text sizes. Please review our attached proposal dated May 26, 2011, entitled, "Cambrian Center Website Enhancement Proposal," for complete details.

The project will be divided into five phases: Discovery, Definition, Design, Development, and Deployment. To ensure successful deployment, our plan is to deploy new code in a separate directory without overwriting the current website. This will allow for your review of the prototype web pages and comprehensive comparative analysis of the new verses the old site.

We have enjoyed meeting with your staff and are looking forward to working with you on this exciting and important project. Our team hopes this proposal will meet your business, technology, quality, and budgetary objectives. We can assure you that we are committed to delivering the highest value possible to Cambrian Center and look forward to hearing your response to this proposal. Please feel free to call us directly at 408-924-5060 weekdays between 9:00 am and 6:00 pm if you have any questions.

Sincerely,

Cambrian Center Team
Development Project Manager
Cambrian Center Website Enhancement Proposal
By Cambrian Center Team

Abstract

Our client, Cambrian Center Inc. (CC), is a non-profit organization that provides affordable housing for seniors and adults with disabilities. Currently, the CC website is unfriendly for the user to navigate, difficult to maintain, and does not comply with the Americans with Disabilities Act (ADA). We will expand our client’s web visitors to include seniors and adults with disabilities by updating the CC website with ADA compliant colors. We will implement automated maintenance tools, Google Analytics™, intuitive navigation menus, search bar, and variable text sizes. Cambrian Center will have a more visible, friendly, and useful web presence. The Webmaster position, at Cambrian Center, can be more productive and maintain a simpler, more elegant site with some automation of monthly maintenance tasks.
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Tue Nguyen – Definition Phase II  
Bryant Panyarachun – Development Phase IV  
Hun Wie – Development Phase IV  
Christopher Taslim – Design Phase III  
Sampada Kathare – Design Phase III  
Michael Kwan: Deployment Phase V  
Paul Finnegan – Deployment Phase V

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Our Understanding
Business Context

1. What is Cambrian Center’s current status or situation?

The existing website is designed for and tested only on the Firefox browser. Pictures take too long to load and have marginal photo quality. Fuzzy Logos are not Adults with Disabilities Act (ADA) compliant. Currently, the Website’s page map is missing, making the site difficult to navigate due to incomplete menus. Also, the html code is confusing due to poor coding practices and incomplete html tags and, thus, the site is difficult to maintain. The site lacks a clear way to collect usage statistics. The website needs a more professional look.

2. What are Cambrian Center’s options?

2.1 ADA compliant website
2.2 Test only on primary browsers - Firefox™ and Internet Explorer 6™.
2.3 Do not test on other browsers (e.g. Chrome™, Safari™, etc.)
2.4 Make coding style consistent
2.5 Use new logos that are ADA compliant
2.6 Add menus and sub tabs
2.7 Improve content in current website - add or improve captions for pictures
2.8 Implement better photos – post new pictures and find a better place to host pictures
2.9 Collect usage statistics - Use Google Analytics™
2.10 Make website robust for compatibility of different browsers
2.11 Make site easier to add and delete photos
2.12 Improve ease of maintenance – automate some routine monthly tasks
2.13 Mechanism for increasing font size
2.14 Add donation page
2.15 Add volunteer page
2.16 Electronic forms - not compatible with U.S. Department of Housing and Urban Development (HUD) requirements
2.17 Volunteer Application needed
2.18 Volunteer information – options include: store online, print out or email
2.19 Search function - Google Search™ function is free for non-profits
2.20 Support for multiple languages
3. Which direction does Cambrian Center need and want to move towards?

3.1 HUD and ADA compliant
3.2 Navigation shortcuts (sub tabs, search bar, sitemap)
3.3 Update current contents
3.4 Electronic forms
3.5 Search function
3.6 More professional look - include pop up videos, slide shows
3.7 Volunteer page - an online application
3.8 Mechanism for increasing font size.
3.9 Collect statistics - Google Analytics™
3.10 Mechanism to change languages
3.11 Photos displaying happy residents
3.12 Donation page - online donations? (for example PayPal™)
3.13 Improve ranking in Google™ - easier for Google-bots to index website, use more key terms more often. (Not really a necessity)
3.14 Create new video?
3.15 New picture links - current pictures open up Facebook™ page.
3.16 Add a floor plan of the facility. (E.g. where is the game room/craft room)
3.17 Do they have brochures that the team may be able to pull information from?

4. Which direction should Cambrian Center decide to take?

4.1 HUD and ADA compliant
4.2 Navigation shortcuts (sub tabs, search bar)
4.3 Update current contents - text descriptions, logos, pictures
4.4 Improve ranking in Google™
4.5 Collect statistics
4.6 Use Highslide™ for slide shows and pop up video

5. How can Cambrian Center reach their goals?

5.1 Use Google Analytics™ to collect usage statistics
5.2 Map out Cambrian Center website's hierarchy
5.3 Propose menus and sub tabs design
5.4 Implement Highslide™ for slideshow
5.5 Upgrade logos and images on site
5.6 Use ADA requirement checklist to check pages
5.7 Picasa™ to reduce photo size
6. How will Cambrian Center be sure they have reached their goals?

6.1 The website should be displayed correctly on Internet Explorer™, Firefox™, and Safari™ browsers
6.2 Photos load faster
6.3 Check pages with ADA requirements checklist
6.4 Statistics regarding website can be tracked by logging into Google Analytics™

**Key Objectives**

**Ten Key Objectives for Redesigning Cambrian Center’s Website:**

1. Make site user friendly for core audience to achieve desired objectives
2. Improve visual design, content structuring, and reduce clutter
3. Easy navigation
4. Make core information available with reduced number of clicks
5. Make core business/services more visible to first time users and easily available to repeat users
6. Easy maintenance
7. Create slide shows with auto generation tool
8. Overall, make site look professional and friendly
9. Implement Google Analytics™ to track statistics
10. ADA Compliant

**Our SCOPE**

1. The CC Team will implement:
   1.1 Website must meet ADA requirements
   1.2 Recode website with consistent style using Cascading Style Sheets (CSS)

2. The CC Team will not implement:
   2.1 Create new video - Video will be replaced with slideshows per client’s suggestion
   2.2 Translate website to display multiple languages - Translating website is outside scope of this project due to resources and time constraints
   2.3 Set-up donation pages and donation account - Cambrian Center does not have infrastructure in place to accept donations and this action would complicate accounting procedures
The Cambrian Center has considered what they would like to see in the enhanced web page after completion. Figure 1 below, shows some of what our customer considered important and how this relates to their values.

![Diagram](image)

**Figure 1. Thought process for Cambrian Center’s business scope and rationale for changes to website, based on discussions and materials from Cambrian Center.**

Source Nguyen, T.
Company Information
Cambrian Center is a non-profit organization that provides affordable housing for seniors and adults with disabilities.

History
Established in 1981, Cambrian Center has been making a difference in the lives of their residents and the surrounding community for 29 years. Cambrian Center provides affordable apartment living for seniors and disabled adults in a quiet, residential neighborhood near the Los Gatos-San José border. Cambrian Center has 11 studio and 139 one-bedroom apartments, subsidized under the U.S. Department of Housing and Urban Development’s (HUD) Section 8.

Product and Service Offering
Each apartment features a full kitchen and bathroom, with ample closet space. Residents are able to enjoy the mild climate of Silicon Valley from their balconies or patios with views of the surrounding hills. In the center of the community is a sunny lobby and lovely patio, perfect for socializing or reading. Our courteous and friendly staff is available 24 hours to provide residents with a feeling of comfort and security.

- **Convenience**
  - Located next to freeway 85 and 17 and bus stop at back gate. Shopping places and several senior centers nearby. Equipped with two laundry rooms.
- **Peace of mind**
  - Good Samaritan Hospital is across the street and each room has emergency pull cords with 24/7 response.
- **Inexpensive rent**
  - Residents pay approximately 30% of their monthly income in rent. All utilities are included in the rent payment. A resident never pays more than the contract rent amount approved by HUD.
- **Entertainment**
  - Provides game room with pool table and large screen television. Residents have access to computers with Internet.
- **Social activities**
  - Multi-Cultural Holiday Celebrations are held. Cambrian Center Resident’s Association meets once a month to get suggestions from residents; ideas will be acted upon by the membership, council, or management.
- **Wellness**
  - Help the community to have high-quality physical activity opportunities. Provides physical activities and nutritional education programs to economically disadvantaged families and older adults.
- **Tranquility**
  - Views of garden and patio areas with aviary. Library is also available.

Functionally complete
- Created website
- Created background and contact information
- Calendar and meal menu offerings available
- Listed services offered by Cambrian Center
Methodology
The project team utilizes a five-step methodology to create timely, effective, and efficient solutions. The methodology establishes a solid foundation for a common understanding of the project approach and enables the disciplined delivery of the solution in structured, manageable phases. While the overall methodology remains the same, processes and deliverables are customized within the methodology to meet each project or client’s individual objectives. The five steps of the methodology are known as **DISCOVERY, DEFINITION, DESIGN, DEVELOPMENT, and DEPLOYMENT**.

**Discovery**

Discovery is the process of identifying areas of opportunity based upon certain criteria. Often, in smaller engagements, Discovery and Definition result in a response such as this to a request for a proposal. In larger engagements, Discovery may be a single, distinct phase, which in turn leads to the definition of multiple projects. Figure 2 below outlines initial steps that will be taken in the Discovery Phase.

<table>
<thead>
<tr>
<th>1. Key Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Setup meeting with Cambrian Center</td>
</tr>
<tr>
<td>1.2. Identify Cambrian Center’s requirements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Key Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. Propose new features of Cambrian Center’s website</td>
</tr>
<tr>
<td>2.2. Propose new capabilities of Cambrian Center’s website</td>
</tr>
</tbody>
</table>

**Figure 2. Discovery is the first process identifying key activities and key deliverables for the first phase of the project.**

Source: Thai, D.

It is critical to maintain open, timely, and clear communication between the client and the development team. In our first meeting with the Cambrian Center Webmaster, the team must learn a great deal about what the client wants, expects, and will accept. The “voice of the customer” must always come first in considering how and what to implement.
The following figure (Figure 3) illustrates the existing website hierarchy. Here one can view the layout of the site and how each page leads to another in an organized fashion. As the final site layout is determined, different versions of this hierarchy will be considered that will build on experiences with the existing web site and input from Cambrian Center staff.

Figure 3. Cambrian Center’s current website’s site map showing page hierarchy and layout.
Source: Kathare, S.
Definition

The Definition Phase is intended to organize and prioritize objectives as well as establish scope for the project. Figure 4 below outlines the steps and activities performed during the Definition Phase.

3. Key Activities
   3.1. Document and confirm scope
   3.2. Determine functional requirements
   3.3. Develop site map
   3.4. Develop creative brief
   3.5. Develop authoring brief

4. Key Deliverables
   4.1. Functional requirements
   4.2. Authoring brief
   4.3. Creative brief
   4.4. Site map - Website hierarchy

Figure 4. Definition Phase organizing and prioritizing objectives for establishing our project’s scope: what we will accomplish, what we will not complete, and why.

Source: Nguyen, T., Grant, K.

A new hierarchical map of the website (see figure 3, page 13) will be created in order to provide a clear path in locating its contents and problems. Our team will design and present possible solutions for projected problems and strategic ideas for possible new functionality. Then the CC team will meet with Cambrian Center and propose these solutions and ideas. In the meeting, the team will obtain feedback regarding priority of the new functionality and decide how much can be completed within the allotted time constraints.
A key step in our process is the concept of a “SCRUM™” meeting. This is an open structured brainstorming session where all the ideas and issues are captured from all involved parties. Figure 5 below, highlights the KEY outcomes of our SCRUM™ meeting.

Figure 5. Scrum Meeting Chart for Cambrian Center's website project and key outcomes.

Source: Nguyen, T.

Working together with the Cambrian Center’s Director and Webmaster, the CC team will create a list of features for implementation. Features in red must be implemented. Features in green should be done by the duration of the project. The CC Team will only begin to work on features in yellow if there is an opportunity after all projected tasks are finished.
Design

The Design Phase is the stage where the final proposal is being built. All the results from the Discovery and Definition Phases are gathered together and are proposed for the last time, to the client, before the team moves on to the Development Phase. Figure 6 below outlines the activities and deliverables for the Design Phase.

5. Key Activities

- 5.1. Proposing final look of website requested by client
- 5.2. Assigning team members present new features in design proposal
- 5.3. Set-up meeting with Cambrian Center

6. Key Deliverables

- 6.1. Design proposal
- 6.2. Final Hierarchy Diagram
- 6.3. New Banner for client’s website

Figure 6. Design Phase determining and demonstrating technical requirements for project design and modifying website code.

Source: Taslim, C

The Design Phase is intended to act as a pre-prototype that is delivered to the client. The deliverables will confirm what the final product will look like before the prototype is developed. The hierarchy diagram (figure 3, page 13), which is the overall view of the Cambrian Center Website, will be updated and presented to the client for sign-off approval.
Existing web pages will be either enhanced or replaced. The CC Team will leverage as much of the existing content as possible to benefit from the existing website. The client indicated the home page was not very welcoming; therefore, figure 7 below, demonstrates what the redesigned home page will look like: included will be happy residents and scenes from a recent celebration at the facility.

Figure 7. Proposed prototype of new Cambrian Center Homepage that demonstrates what our client would like to see in a new website.

Source: Kwan, M.
Figure 7, page 17, is an example of the proposed homepage for Cambrian Center’s new webpage. The following changes will be implemented: photos of happy residents, improved graphics for required logos, and a new banner meeting ADA requirements.

**Development**

During the Development Phase all the deliverables will be developed and packaged into a prototype for our client to review. Figure 8 below outlines the key activities and deliverables of the Development Phase.

### 7. Key Activities

7.1. Propose and confirm final items to be developed
7.2. Allocate tasks to team members for development of prototype
7.3. Deliver working prototype to client

### 8. Key Deliverables

8.1. Development Proposal
8.2. Working Prototype

**Figure 8. Phases leading to the completion of the development cycle and completion of our project for deployment.**

Source: Panyarachun, B.

At this point, our team will have confirmed all deliverables to be implemented upon the final completion of the product. The CC Team will begin working on these deliverables to develop a working prototype to deliver to our client at Cambrian Center.
Figure 9. Development Phase Gantt chart overview
Source: Panyarachun, B.

The above VISUAL Gantt chart, figure 9, demonstrates our Team’s progress up to middle of Development Phase, to view Gantt chart in more detail, please see Appendix C on page 32.
Deployment

The Deployment Phase will conclude this project between San José State University Computer Science Department’s students and Cambrian Center. Paul Finnegan is the current graduate student leader and Michael Kwan is the current undergraduate student leader. They plan to deploy a parallel web site on the client’s web hosting service. The CC team will perform our final quality checks on the live site. The client will also be able to access the new prototype web page for final acceptance, before approving the deployment. This is a critical point; testing and then uploading the site on their server creates many opportunities for undetected errors and side effects. By running the new prototype web site on the production web server in parallel, defects, that otherwise may not be detectable until the new system goes live, can be found and fixed before release. The Cambrian Center team is focused on delivering a robust, turn-key solution to the client the first time out.

9. Key Activities

9.1. Build "secret" web page on the Web Hosting Logic server for team and client to exercise
9.2. Develop final user documentation for client
9.3. Train client for implementing monthly updates (e.g. calendar and menu)
9.4. Final testing of web system
9.5. Replacing current home page with "secret" page

10. Key Deliverables

10.1. Fully functional and commented set of html files and supporting tools
10.2. User maintenance and administration documentation
10.3. Client is trained and confident in future maintenance tasks and understands procedures
10.4. Release of new web system to public

Figure 10. Deployment Phase completion for Cambrian Center’s website outlining final objectives and goals.

Source: Finnegan, P.

Figure 10, above, outlines the steps for deployment of the Cambrian Center website. Our approach will improve testing and reduce redundant work. The client will have immediate access as new versions of the prototype web pages are installed.
As part of the poster session students are required to collect viewer feedback. Please see Figures 11.1, 11.2, and 11.3 below.

Figure 11.1. Survey results for Cambrian Center’s web page taken during May 6, 2011, San José State University Computer Science’s Poster Expo.
Source: Thai, D., Taslim, C.

Figure 11.1, above, illustrates the survey results for questions 1 and 2.
Figure 11.2. Survey results continued for Cambrian Center’s web page taken during May 6, 2011, San José State University Computer Science’s Poster Expo.

Source: Thai, D., Taslim, C.

Figure 11.2, above, illustrates the survey results for questions 3, 4, and 5.
Figure 11.3. Survey results continued for Cambrian Center’s web page taken during May 6, 2011, San José State University Computer Science’s Poster Expo.

Source: Thai, D., Taslim, C.

Figure 11.3, above, illustrates the survey results for questions 6.
### Table 1. Project Resources for Cambrian Center Website Enhancement

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Responsibilities and Tasks</th>
</tr>
</thead>
</table>
| 1. Paul Finnegan, Graduate Student Leader | 1.1 Primary client interface and installation of website  
1.2 Liaison between SJSU team and Cambrian Center  
1.3 User training |
| 2. Kevin Grant | 2.1 Code cleanup, ADA compliant, Help doc for Google Search  
2.2 Define project scope |
| 3. Sampada Kathare | 3.1 Redesign & develop the “contact us” page,  
3.2 Website hierarchy diagram  
3.3 Define project scope |
| 4. Michael Kwan, Undergraduate Student Leader | 4.1 Develop the menu navigation system, text resizing, site search,  
and build script for generating headers, footers and site map  
4.2 Redesign the home page and fix bugs in old code  
4.3 Design the poster |
| 5. Tue Nguyen (Terry) | 5.1 Define project scope  
5.2 Implement auto-generating slide show, Google Form  
5.3 Create tutorial for slide show and Google Form  
5.4 Update CC’s web contents and ADA compliant |
| 6. Cambrian Center Team | 6.1 Banner and various graphics, HUD requirements  
6.2 Google Analytics™ Tutorials  
6.3 Volunteer page with application form |
| 7. Christopher Taslim | 7.1 Design project scope  
7.2 Final Code spell checker  
7.3 HUD requirements  
7.4 Set up Design meeting with Client, Identifying risk and failures |
| 8. Donald Thai | 8.1 Canceled initial project (UpMo)  
8.2 Set up first client interactions to determine needs  
8.3 Google Analytics™ Tutorials  
8.4 Comparison between Webhosting Logic and Google Analytics™ |
| 9. Hun Wie (Theo) | 9.1 Suggest sitemap for easy navigation  
9.2 Show demo Google search  
9.3 Set up meeting with Cambrian Center |

Source: CC TEAM
Table 1, page 24, demonstrates how we will divide the project into a group of sub-tasks. These sub-tasks are distributed amongst the team so that each member’s special skills and backgrounds can be utilized to achieve the project’s objectives. All major roles and responsibilities are indicated and numbered according to alphabetical order of the resources’ last name.
Appendix A: Annotated Bibliography


The Internet has become a part of everyday life and allows users to accomplish tasks that were previously difficult or impossible to accomplish. People with Disabilities (PWDs) have limited access to these resources due to the fact that they are not primarily designed with PWDs in mind. The Web Design Framework for Improved Accessibility for People with Disabilities (WDFAD) was designed to give web designers clear guidelines on how to develop web accessibility for PWDs. WDFAD consists of three primary goals: content accessibility, navigation accessibility, and user interface accessibility. WDFAD represents these three goals in a way that allows graphic designers to see the requirements needed to meet these goals. Meeting these goals result in improved web accessibility for PWDs. The Internet has become an essential part of everyday life. The Internet allows users to accomplish many tasks that would be difficult or impossible to do without the Internet. However, People with Disabilities (PWDs) only have access to certain resources that have been designed specifically with them in mind. Some Web accessibility guidelines have been developed to provide Web accessibility requirements and techniques for designing more accessible web applications but web developers still tend to implement them ineffectively. One of the reasons for this is the fact that it is difficult for developers to apply accessibility guidelines to their existing workflows and developers would like to see more specific guidelines on how to make a more accessible application. The Web Design Framework for Improved Accessibility for People with Disabilities (WDFAD) proposed in this article was created to be those specific developer oriented guidelines. The framework is based on three components of web applications, which are content, navigation, and user interface. The WDFAD was created by first classifying the requirements according to the three components of web applications. This shows the relationship between the three components in relation to web accessibility. Next a summary justification of why each web accessibility requirement is necessary is presented in order to show the contribution of each web accessibility requirement to the web usage experience of PWDs. WDFAD uses the Non-Functional Requirements Framework to present the web accessibility requirements in developer oriented guidelines. The primary goals of WDFAD content accessibility, navigational accessibility, and user interface accessibility. The web accessibility requirements for each web component that need to be met are classified as sub goals. WDFAD is represented as a Venn diagram with three sets corresponding to each of the primary goals. Each of the primary goals contains a set of sub goals. The intersection of each primary goal represents the sub goals that are present in the
intersecting primary goals. Four of the sixteen design requirements are preset in all three of the primary goals. These are the most important requirements because if these requirements are met then the goal of web accessibility for PWDs will be met. “The precise nature of WDFAD and its packaging according to the main components of Web applications could make Web accessibility guidelines easier to understand and apply by Web developers.” Through reading this article I became aware of various types of assistive technologies and the types of requirements they meet in order to represent a web application to PWDs. I also learned about various usability requirements that need to be considered when trying to achieve web accessibility. I believe this will be useful for our project because our client deals with many clients who may be PWDs. Our client also needs to meet certain government requirements that pertain to web accessibility for PWDs.


This article examines the guidelines for accessibility of the Web for People With Disabilities (PWD) and especially the blind. In their research, Baguma and Lubega found that by following just a few simple guidelines, the accessibility and usability of the web browsing experience can be greatly improved. One of the requirements that’s proposed is a text only version of the website. Some other techniques are: text with some visual elements, skipping navigation links, tutorial about navigation, making sure the tables, form, and frames are easy to be accessed, testing with keyboard only usage, and acronyms for people that is using the website for the first time. The result of this research is to improve all blind people to access the web and easier for hybrid learning. The Web is a portal for people to engage in activities like learning, social networking, researching, shopping, etc. Normally, this would be difficult for People With Disabilities (PWD) to participate in. Tools such as VisiCAST [1], SMILE 2 and the EVIDENT[3] are developed to support PWD in learning. Baguma and Lubega understood that many websites were not built with PWD in mind. For those that did, they normally do not include the blind people. Hence, Baguma and Lubega looked at polices and guidelines for PWD. Then, they did a case study to see if graphical user interface (GUI) will affect blind people. Baguma and Lubega reviewed guidelines like Web Content Accessibility Guidelines (WCAG) 1.0, WCAG 2.0 draft, Americans with Disabilities Act (ADA), section 508 of the US Rehabilitation Act, Australian Disability Discrimination Act (ADDA) and National Institute on Aging (NIA). Baguma and Lubega also look at features that may hamper web accessibility for the blind like “GUI, non-linear navigation approach, visual elements, forms, lack of keyboard support, lack of orientation, acronyms, and non-standard document formats” (Baguma and Lubega, 394.) Next, Baguma and Lubega selected ten blind people and five sighted people to perform web browsing tasks. All participants were not expert in using the web and come from Uganda. Half of the participants were university students and half were working individuals. The purpose of the experiment was to see how long
each task would take and to see if it can be successfully completed. There were five tasks and each one has at least one feature that would hamper web accessibility for the blind. -use www.google.com to search on 2007 Common Wealth Heads of Government Meeting and read about it. -search www.amazon.com for a book of interest and get to the ordered step of submitting shipping address. -open the home page www.aboutuganda.com and listen to its contents. -open the first article on www.bbc.co.uk home page and read it.

Baguma and Lubega’s result shows blind people took an average of five minutes to do each task while people with sight took an average three minutes. The extra time is due to graphical intensive websites without alternative text presentation. With markup for HTML like <H1>, <H2> and <P>, blind people have a better grasp of a website document structure with a screen reader. This also helps blind people to easily find, skip or go back to contents in a page. Since screen readers read information sequentially, the navigation links are repeated on each page. Web pages should include the ability to skip navigation links. In addition, each page should divide its content into sections like main, heading, navigation and advert with the ability to skip each sections. Label must be above or to the left of text entry fields or combo boxes. It is often better to use Cascading style sheets (CSS) instead of tables to display data. Abbreviation and acronyms should be expanded the first time they are use on each page. Each page must be accessible with keyboard only. Pop ups will disorientate blind people. Baguma and Lubega’s want to carry out the same case study in another country with a wider group of PWD. 

In order to make it easier for screen readers to read the source code, I learn to use markups like <H1> and <P> in sequential order. These sequential markups allow blind people to have a better grasps of the structure of the page and all for better navigation of the page. Also, I should avoid table and use CSS and always expand abbreviations and acronyms the first time they are referenced on a page. Each visual element must have a text alternative. The ability to skip navigating links help reduce the time blind people spend listening on each page. I will use all these tips to implement the Cambrian Center website.


According to Brouwer James al, [5], state, “twenty first century will see one of the greatest demographic movements and cultural, shifts in history caused by ageing world population. This study explains an approach called “SilverWeb Guidelines” which are guidelines for the set of research-based ageing-centered web design. There are 38 guidelines, which are categorized into eleven different categories (“target design, use of graphics, navigation, browser window features, content layout design, links, user cognitive design, use of color and background, text design, search engine, user feedback and support”). The results after going through the guidelines will be able to make better user-interface websites that are exposed to older persons. The twenty first century is bringing a large population
of elderly adults into the World Wide Web (WWW.) Since the five senses and learning ability of the elder will be degenerated “through the natural ageing process,” a lot of information has been generated for “ageing and technology.” Zaphiris, Kurniawan and Ghiawadwala recognize the difficulty for web designers to find guidelines through vast available information and then applied these guidelines effectively; therefore, they pulled together researches on “ageing and technology.” Next, Zaphiris, Kurniawan and Ghiawadwala applied these finding on a group of older subjects. Through careful analysis, they checked the usefulness of each guidelines and it order of importance. Their finding is called “SilverWeb Guidelines.”(Zaphiris, Kurniawan & Ghiawadwala; 59) The study started off with reviewing over 100 academic papers relating to academic papers on the areas of human-computer interaction (HCI) and ageing, consisting of collecting and reviewing age related publications that were published in the key HCI or gerontology journals. This extensive review of articles led to the extraction of 52 guidelines that were called the SilverWeb Guidelines Version 1.0. These guidelines were categorized based on the age-related functional impairments that were carefully supported with at least one published article for each category. A card sorting exercise was used to further categorize the guidelines. This exercise was conducted with 40 postgraduate computing students each handed a 3x5 card with the 52 guidelines. Zaphiris, Kurniawan and Ghiawadwala were then asked to group relating guidelines together, sort these guidelines into categories, and provide category headings, which then resulted in nine categories. A focus group was then used consisting of five PhD Research Students (Researchers and Academics all experts in the domain of HCI). Zaphiris, Kurniawan and Ghiawadwala used the affinity diagramming technique within the focus group. This focus group produced a smaller distinctive 38 guidelines and 11 categories which was called the SilverWeb Guidelines Version 2.0. To test if the guidelines that were compiled, the heuristic evaluation was used that consisted of six participants (under 40 years old) of researchers and research students that have at least 2 years of experience in HCI. The two versions of the SilverWeb Guidelines were both evaluated based on two sites that are for older persons by having the participates going through each category writing down if the guidelines have been meant based on the website. From this exercise, it was concluded that Version 2.0 of the guidelines was better because it was logically structured and informative. Finally, 16 older web users (average age = 59.2 years, SD = 3.81, six males and ten females, average Internet experience = 3.4 years) were in an experiment to rate the usefulness of the SilverWeb Guidelines Version 2.0 rating it from 1 (useless) to 5 (very useful). The paper achieves to apply systematic approach to reduce the barriers in web pages targeted for older people. A focus group tested whether it was possible to reduce the number of guidelines without affecting comprehensiveness. The initial set was shrunk into 38 guidelines and 11 categories (SilverWeb Guidelines Version 2.0). One finding was that older participants were not familiar with some terminology and guidelines. SilverWeb is necessary to ensure the guideline users understood the guidelines as they were intended, and SilverWeb needs validation involves users of various backgrounds since SilverWeb is more likely for users who are not typical web users. This article detail extensive research
related to guidelines for web design for older adults with diminished abilities. Although, there are legal and financial incentives for getting older adults wired, this article does not attempt to educate or train them into adopting the web technologies. The research is meant for web designers to use as a guide for developing web pages for older adults. Zaphiris, Kurniawan and Ghiawadwala conducted research on the usability of the web interface for older adults. Through control experiments with adults 55 or older, Zaphiris, Kurniawan and Ghiawadwala narrow the list of guidelines to 38 guidelines. The article acknowledges its limitations and suggested that a follow up study is needed in order to evaluate whether these web design guidelines would be useful to the general population. The guidelines are also an evolving process and require further research for future updates.
Appendix B: Works Cited


### Cambrian Center's Website

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<th>Description</th>
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| Project Manager: Kevin Grant(G) & Tue Nguyen(U) | | | | | | | | | | |
| 1. Technical | Sammada | 3 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| 2. Website requirements | B extinct | 5 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| 3. Website requirements | B extinct | 5 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| 4. Requirement | Kevin | 5 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| Create Phase I Discovery | Donald, Mike | 5 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| Create Phase II | Donald, Mike | 5 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| 6. Document | Tue, Kevin | 5 | 3/7/2011 | 5 | 3/12/2011 | 100% | | | | | |
| 7. Meeting Team Meeting 3/30/11 Paul, Mike, Paul, Kevin | 27a | | | | | | | | | | |
| 8. Meeting Team Meeting 3/30/11 Paul, Mike, Paul, Kevin | 27a | | | | | | | | | | |
| 9. Meeting Team Meeting 3/30/11 Paul, Mike, Paul, Kevin | 27a | | | | | | | | | | |
| Contact | Kevin | 1 | 3/12/2011 | 1 | 3/12/2011 | 100% | | | | | |
| | Tue, Kevin | 1 | 3/12/2011 | 1 | 3/12/2011 | 100% | | | | | |
| Update CC Website - Cambrian Center | Tue | 1 | 3/12/2011 | 1 | 3/12/2011 | 100% | | | | | |

Appendix C: Gantt Chart: place into this section
### Cambrian Center's Website

#### Cambrian Center Proposal

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| Phase V: Deployment             |           | 1 2 3 4 5 6 |
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Appendix D: Progress Reports

Phase I: Discovery

San José State Student Project
One Washington Square
San José State University
Computer Science Department MH 208
San José, CA 95192-0249
cambriancs100w200wspr2011@googlegroups.com

March 6, 2011

Carolyn Bircher (Project Contact)
Cambrian Center, Inc.
2360 Samaritan Place
San José, CA, 95124-3917

Dear Ms. Bircher:

The redesign for the Cambrian Center (CC) web page has begun. The project will be divided into five phases. With our initial meeting on March 3rd, we’ve concluded the Discovery Phase (Phase I). Our meeting was very valuable to getting our project off on the right track. After gaining a better understanding of what CC’s requirements are, the project will move into the Definition Phase (Phase II) where we will brainstorm and refining our ideas. We will update CC on the progress of the project in our next meeting on March 16th.

Work Completed
As of March 6th, the CC Team has completed the Discovery Phase where we identified Cambrian’s requirements labeled CambrianCenterMeetingMarch03 in the shared collections.

Work Scheduled
The team plans to present an informative document describing the proposed new features and capabilities to the Cambrian Center. We then will proceed to the Design (Phase III) from March 14th to March 27th, Develop (Phase IV) from March 28th - April 9th, and Deploy (Phase V) from April 10th to April 24th.

The next major joint milestone will be the “Buy in Event” and we expect that to occur in about three weeks. In the meantime, we expect a great deal of communication to transpire amongst all of us as this project develops. To help facilitate that, Debra will be forming a new Google Group for the SJSU CS100W team and you to share working documents.

We are very pleased to have this opportunity to work with you and Cambrian Center. Please feel free to contact Terry Nguyen, Project Manager, and Phase II: Definition, with any comments, questions, and/or concerns.

Sincerely,

Donald Thai
Discovery Phase, Project Manager
Phase II: Definition

San José State Student Project
One Washington Square
San José State University
Computer Science Department MH 208
San José, CA 95192-0249
cambriancs100w200wspr2011@googlegroups.com

March 13, 2011

Carolyn Bircher (Project Contact)
Cambrian Center, Inc.
2360 Samaritan Place
San José, CA, 95124-3917

Dear Ms. Bircher:

Our Team has developed a list of features and improvements for the Cambrian Center (CC) website. We plan to discuss them with you on the priority of features and improvements you desire. We will send you a list of the features and improvements and any questions we will ask you before the meeting. Once priority and a clear approach to improving CC website have been made, we will begin the Design Phase. The Design Phase will focus on how to design features base on their priority. We will show you the design in two weeks.

Work Completed
Our students have mapped out the hierarchy of the existing CC website, created a list of features from our last meeting and addition inputs from CC. We have completed research on ADA compliance. However, HUD requirements have to come from CC. Also, we have begun to look at the source code of CC website.

Work Scheduled
The plan is to propose the features and improvements in our next meeting. We will design features for CC website once agreement has been made. After completing the Design Phase, we will show you how we plan to implement these features. When you have agreed on the design and requested for any additional modifications, we will begun the Development Phase. You can track our current work in Share CS100W folder.

We are very pleased to have this opportunity to work with you and Cambrian Center. Please feel free to contact Kevin Grant or Terry Nguyen, Project Managers of Phase III: Design, with any comments, questions, and/or concerns.

Sincerely,

Kevin Grant and Tue Nguyen
Define Phase, Project Managers

May 26, 2011
Phase III: Design

San José State Student Project
One Washington Square
San José State University
Computer Science Department MH 208
San José, CA 95192-0249
cambriancs100w200wspr2011@googlegroups.com

April 1, 2011

Carolyn Bircher (Project Contact)
Cambrian Center, Inc.
2360 Samaritan Place
San José, CA, 95124-3917

Dear Ms. Bircher:

Our project team has made a list of final features and improvements that we discussed at the last meeting. The students are planning to discuss this design proposal in our next meeting, which is to be held on April 7, 2011. You will shortly receive a document from us which contains the list of features which will be implemented in your website on each web page. Also, we will send you an updated hierarchy diagram so that you may prepare your questions or concerns before our next meeting. Once we have a clear vision on the improved website, we will continue with the Development Phase. The Development Phase will implement everything that we have designed & will be completed within three weeks.

Work Completed
We have updated the hierarchy of CC website with the list of enhanced & additional features as suggested during the last meeting. We have come up with a list of features that will be implemented on each page of CC’s website.

Work Scheduled
We plan to propose the final list of design features during the next meeting. We will start developing the features for the CC website once an agreement is reached. After completing the Development Phase, we will show you how we plan to implement these features. We will proceed with the development only with your approval & possible suggestions. Only after this will the Deployment Phase begin. You can track the progress of our work in the Share CS100W folder in Google Groups™.

We are very pleased to have this opportunity to work with you and Cambrian Center. Please feel free to contact Cambrian Center Team and Theo Wie, Project Manager, Phase IV: Development, with any comments, questions, and/or concerns.

Sincerely,

Sampada Kathare and Christopher Taslim
Design Phase, Project Managers
Phase IV: Development

San José State Student Project
One Washington Square
San José State University
Computer Science Department MH 208
San José, CA 95192-0249
cambriancs100w200wspr2011@googlegroups.com

April 9, 2011

Carolyn Bircher (Project Contact)
Cambrian Center, Inc.
2360 Samaritan Place
San José, CA, 95124-3917

Dear Ms. Bircher:

The students of our team thank you for taking the time to meet with us this past Thursday evening at San José State University. Your feedback was very valuable to us and is essential for us to move onto the Development Phase. At the meeting, we understood which slide show style you choose, the banner to be implemented and how navigation should function. We also got your confirmation to change scheme color, add new pages, and embed Google Analytics™ code. We will develop a prototype web page for your review by April 23rd and will contact you to arrange a time to review the prototype.

Work Completed
Development proposal has been created. Inside the proposal are lists detailing which functionalities and features shall remain and which shall be removed. Also, information on new features is included.

Work Scheduled
We plan to assign various team members specific tasks for the design and implementation of CC. We expect to be contacting you individually as we progress to resolve the remaining open items (e.g. the new banner proposals.)

We are all excited to see this project coming together and hope that you are too. If there are any additional comments or concerns please feel free to contact Michael Kwan or Paul Finnegan, Project Managers of Deployment (Phase V).

Sincerely,

Hun Wie (Theo) and Cambrian Center Team
Develop Phase, Project Managers
Phase V: Deployment

San José State Student Project
One Washington Square
San José State University
Computer Science Department MH 208
San José, CA 95192-0249
cambrians100w200wspr2011@googlegroups.com

May 13, 2011

Carolyn Bircher (Project Contact)
Cambrian Center
2360 Samaritan Place
San José, CA, 95124-3917

Dear Ms. Bircher:

The redesigning of the Cambrian Center (CC) website is progressing as planned and is near completion. The prototype of the new CC website is pre-deployed in Web Hosting Logic and is undergoing testing. Once the testing is complete, we will archive the old CC website and deploy the new CC website.

Work Completed
As of May 13, 2011, we have implemented all the high and medium priority requirement changes agreed upon on our April 7, 2011 meeting:

- Tab menu navigation system
- Text resizing
- Slide shows (High Slide)
- Site search (Google Custom Search)
- Site map
- Web statistics (Google Analytics)
- Auto generation of Headers and Footers for consistency
- New Banner with clearer text and ADA complaint colors
- Add Volunteer page
- Add What's New page
- Separate Contact Us and Driving Directions page.
- Redesign the Home page
- Consistent look and feel improvements on all pages

The new Cambrian Center website is pre-deployed under a separate directory and will not affect the current website. The new site can be access by http://www.cambriancenter.org/sjsu/.

Work Scheduled
Once we receive approval from CC, we will schedule a maintenance that’s mutually convenient for both CC and the SJSU team. During deployment, we will temporary disable the current website and archive it. The new CC website will then be deployed in its place. After the new website is deployed, we will go through our checklist of items to test on the live site. If any issues arise during the deployment, we will attempt to address it. If issues cannot be resolved during the schedule maintenance window, we will either roll back to the previous version or leave it as is if it is minor.

We are very pleased to have this opportunity to work with you and Cambrian Center. Please feel free to contact either Michael Kwan or Paul Finnegan if there are any comments, questions, and/or concerns about the Deployment Phase.

Sincerely,

Michael Kwan and Paul Finnegan
Deployment Phase, Project Managers
Appendix E: Using Google Analytics™
The Basics – from Google Analytics™ webpage

Google Analytics™ Tutorials

Author: Cambrian Center Team, Donald Thai
Revision 2
5/19/2011

Google Analytics™ is a free product that tracks your website and gives detailed statistics about visitors to your website. For example, Analytics can show you how people found your site, how they explored it, and how you can enhance their visitor experience. With this information, you can improve your website return on investment, increase conversions, and make more money on the web.

The Basics

Install Tracking Code: Install your tracking code and view reports within 24 hours.

To access your tracking code from within your Google Analytics™ account:
- Log in to Google Analytics™ at http://www.google.com/analytics
- From the Overview page, select the account that has the profile for the tracking code you're looking for, as the code is profile-specific.
- Select the profile from the accounts Overview page.
- From that profile's Actions column, click Edit
- At the top right of the 'Main Website Profile Information' box, click Check Status
- Your tracking code can be copied and pasted from the text box in the Instructions for adding tracking section

When adding your tracking code to your web pages, make sure to paste it into the body section of your HTML code, immediately preceding the </body> tag if you use the ga.js code. If you use the asynchronous code, you should add it immediately preceding the </head> tag.
Interpret Your Data: Watch this video to learn how to interpret basic metrics and understand what actions you should take as a result. 
[Link](http://www.youtube.com/watch?v=qfG2d9etvk&source=DiscoverList&medium=et&campaign=en_us&hl=en)

Read the Getting Started Guide: Explore the interface and learn how to read basic reports.
[Link](http://www.google.com/support/analytics/bin/static.py?page=guide_cs&guide=19779&source=DiscoverList&medium=et&campaign=en_us&hl=en)

What does the Analytics interface look like?
See the diagram below to explore some of the features available for Google Analytics users.
1. Click this link to navigate back to your Analytics Settings page, so you can get an overview of and edit all your Analytics accounts and profiles. From there, you can navigate to the Profile Settings page, where you can view your tracking code, and create goals and funnels.

2. You can also navigate to any account using this pull-down menu.

3. The 'Settings' page is different from the "Analytics Settings" page. Here, you can set the email address associated to your account, your account language, and your email notifications settings.

4. The 'My Account' link takes you to a page listing all your Google Accounts.
Learn more about Google Accounts settings page.

5. Click here to go to our Google Analytics Help Center. It searches over 30,000 pages of Google Analytics support content from the Help Center, Google Analytics Help Group, and the web.

6. Always remember to sign out of your account when you're done!

<table>
<thead>
<tr>
<th>Google Analytics reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Analytics has over 80 reports to help you gauge your site's performance -- whether by usage metrics, return visit numbers, or time on page. Below is a list of reports that are available as of January 2009. However, please keep in mind that Analytics is continually releasing new features and reports, so this list may occasionally change and grow.</td>
</tr>
</tbody>
</table>

7. Visitors

This section provides information on visitor interaction with your site, the type of visitors, and information about how they are viewing your site.

- Benchmarking, Map Overlay, New vs. Returning, Languages, Visitor Trending, Visitor Loyalty, Browser Capabilities, Network Properties, User defined

8. Traffic Sources

Find out how different offline or online sources sent traffic to your site. View which sources are driving the most traffic to your site and spot trends from the provided graphs and charts.

- Overview, Direct Traffic, Referring Sites, Search Engines, All Traffic Sources, Keywords, AdWords (lists AdWords-specific information like AdWords Campaigns and Keyword Positions), Campaigns, Ad Versions

9. Content

These reports are all about the pages in your site and how visitors interacted with each one. Use the data here to find time on page, landing and exit page information, and a navigation summary for pages. Another
free Google product, Website Optimizer, has been useful for advertisers looking to increase conversions by testing different versions of their content. You can learn more about it here.

- Overview, Top Content, Content by Title, Content Drilldown, Top Landing Pages, Top Exit Pages, Site Overlay, Site Search, Event Tracking (in Beta)

10. Goals
If you've set goals for your Analytics account, then you should see data in these reports.
Learn how to set up goals and funnels.

- Overview, Total Conversions, Conversion Rate, Goal Verification, Reverse Goal Path, Goal Abandoned Funnels, Funnel Visualization

11. Ecommerce
For Ecommerce site owners, these reports give extremely helpful information on the revenue, transaction, and ecommerce activity on a site. There's a whole section on product performance to view your top-selling product, right down to the SKU number.

- Overview, Total Revenue, Conversion Rate, Average Order Value, Product Performance (Product Overview, Product SKUs, Categories), Transactions, Visits to Purchase, Days to Purchase

12. Design a custom report using the metrics and dimensions you want to see. For more information, please read our Quick Start Guide.

13. Settings - Advanced Segments and Email
Advanced Segmentation: Slice and dice your data in the way you want to see them. Click 'Advanced Segments' to create these segments and apply them to your reports. Read through our tutorial and view our video on this powerful feature here.
Email: Manage scheduled email reports. In order to learn how to modify them, please read this article.

14. Click on any of these help resources to get information on the specific report you're viewing, tips on how to interpret and use the information for your campaign, or learn what other people's common questions are.

15. Select from this pull-down menu to jump to another Analytics account.

16. Apply the advanced segment you created to a report and compare it side-by-side to other graphs. See number 13 to learn more about advanced segments.

17. Select a date range through a calendar or timeline slider to graph your report data by clicking on the arrow. You also have the option compare to past data in this section. Instructions on how to use this feature can be found here.

18. Graph your report by day, week, month, or hour (where available). Learn more.

19. The selected date range, graph by view, advanced segment or metric is viewed as a graph here.

20. Get at-a-glance views of your account's key metrics here.

21. Add or delete report snapshot modules to your dashboard. To add a module, go to your desired report and click 'Add to dashboard' at the top of your report. To delete one, click the 'X' on the upper right-hand corner of every module in your Dashboard report.

An additional reference we think may be very useful for you:
The Google Analytics YouTube Channel
http://www.youtube.com/googleanalytics?hl=en

Advanced Features
The above tutorials as well as tutorials for more advanced features are available at the following link:
http://www.google.com/analytics/discover_analytics.html
Appendix F: Working with Google Custom Search™
The following document should act as a reference for use with Google custom search.

Author: Kevin Grant
Revision 1
5/13/2011

Dear Cambrian Center: the Google custom search we have installed on the new website can be modified and controlled to your liking. Below are a handful of links that lead to easy to follow and useful links concerning the custom search.

What is custom search? (A short overview)
http://code.google.com/intl/en/apis/customsearch/docs/start.html#overview

Managing your custom search

A link to the Google custom search control panel
http://www.google.com/cse/manage/all
This will open a page that contains a list of all the custom search engines that have been created on the users Gmail account. Yours might look like the following.

Here you can access the control panel as well as statistics on your custom search engine.
Appendix G: Slideshow Tutorial

REVISION HISTORY

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<thead>
<tr>
<th>Ver.</th>
<th>Date</th>
<th>Author</th>
<th>Description</th>
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<td>2011-05-20</td>
<td>Tue Nguyen</td>
<td>Redo document for clarity</td>
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<td>2.1</td>
<td>2011-05-21</td>
<td>Paul Finnegan</td>
<td>Minor grammar corrections</td>
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1.0 Purpose
The purpose of this slideshow tutorial is for the Cambrian Center Webmaster to be able to maintain the new slide shows on the redesigned web page. The tutorial will: 1) identity components needed for the auto generation script to work for the Cambrian Center Webpage, 2) explain the folder slideshow’s hierarchy, 3) demonstrate how to make a new slideshow and 4) how to incorporate a new slideshow into an existence webpage.

2.0 Scope
This document is for use by the Webmaster at Cambrian Center. It is assumed a basic understanding of basic Microsoft Windows experience and some familiarity with navigating directories to copy and paste files. Also, it assumes the Webmaster knows how to check if the Window OS is 32bit or 64bit version. Finally, it assumes the Webmaster can download and install ActivePerl.

3.0 References
3.1 ActivePerl can be found at http://www.activestate.com/activeperl.
4.0 Quick Start

**Required components:**
1) A folder for the new slideshow and that is in the “slide_show” folder.
2) The slideshow folder includes the following:
   a. Photos that are in .jpg format with thumbnails for those photos in .png format. (recommended size is under 20k bytes and dimension is under 100 x 100 pixels)
   b. a caption file named “Captions.txt”
   c. a Perl script called “call_auto_generate.pl”

**Recommendations:**
- Photos’ size in .jpg format is 150K to 450K bytes. Photos under 150K bytes will be of inadequate quality for zooming. Photos over 450K bytes will be slow to load.
- Thumb nails’ size in .png format is under 20K bytes, and their dimension (resolution) should be under 100 x 100. However, one of the two dimensions should be at least 15 or the thumb nails will be too small to view clearly.

**Note:**
- The Perl script “call_auto_generate.pl” is not the script that generates the slideshow. “call_auto_generate.pl” will only gather information and pass it to the real generating script calls “auto_generate.pl”
- The current Highslide™ JS version 4.1.9 does not support iPhone™ or iPad™. However, there will be support for iPhone™ and iPad™ in the near future.
5.0 Slide Show Folder Hierarchy
A description of the hierarchy of the files helps to clarify how the slide show Perl script interacts with “slide_show.” It also shows where the Highslide JS is located and how to update it. Figure 5.1 below…

The folder “highslide” is the location of Highslide™ JS code. If you want to update Highslide™ JS to a newer version, you can simply overwrite the current code inside “highslide” with a newer version.

The folder “auto_generating_script” is the location of “auto_generate_slideshow.pl”

The rest of the folders are for each slideshow. For example, “_29th_anniversary” or “Nowruz_Celebration.” You can use space or underscore as part of the folder name. Please use only the following characters for folder name: A-Z,a-z,0-9, space and underscore.

**IMPORTANT:** Do not change the name or location of either “highslide” or “auto_generating_script.”

6.0 Creating a New Slideshow Example
This example is to help you understand how to add a new slide show into your existing website.

For example, you have two photos for a new slideshow:
   First, photo “xmas_1.jpg” and it thumbnail “xmas_1.png”
   Caption for the first photo is “blossom tree.”
   Second, photo “xmax 2.jpg” and it thumbnail “xmax 2.png”
   Caption for the second photo is “Musical decorations.”

6.1 First, goes to your “slide_show” folder. Figure 6.1 below…

![Image of file structure]

**Figure 6.1.** Selects INSERT_NAME.zip in top level of “slide_show.”
Source: Nguyen, T.

Next, extract INSERT_NAME.zip (The extraction will give you a folder INSERT_NAME.)
6.2 Then, rename INSERT_NAME (as an example you want a new slideshow called “Christmas_2011.”) See Figure 6.2 below…

![Image of file explorer window showing folders and files]

Figure 6.2. Rename “INSERT_NAME” to “Christmas_2011.”
Source: Nguyen, T.
6.3 After changing the name to “Christmas_2011”, it should look like Figure 6.3 below…

![Figure 6.3 Result of renaming to “Christmas_2011.”](image)

Source: Nguyen, T.
6.4 Now, open the folder “Christmas_2011”. Figure 6.4 below…

![Folder Contents Display](image)

**Figure 6.4.** Displays contents inside the folder “Christmas_2011.”
Source: Nguyen, T.

You should see “call_auto_generate.pl” and “Captions.txt”. 
“call_auto_generate.pl” will trigger the creation of a slideshow for Christmas_2011 folder. (Important: Do not edit “call_auto_generate.pl”)
6.5 Now, open the file called Captions.txt inside “Christmas_2011”. See Figure 6.5 below…

![Figure 6.5. Display of the contents of the file “Captions.txt.” Source: Nguyen, T.](image)

6.6 Next, make the changes similar to those below and save the file. See Figure 6.6 below…

![Figure 6.6. Shows modified contents for “Captions.txt.” Source: Nguyen, T.](image)

6.7 Finally, close Captions.txt.
6.8 Now, return to the “Christmas_2011” folder view.

6.9 Then, copy the files “xmas_1.jpg”, “xmas_1.png”, “xmas 2.jpg”, and “xmas 2.png” into the folder “Christmas_2011.” See Figure 6.9 below...

![Folder View](image)

**Figure 6.9.** “Christmas_2011” with “xmas_1.jpg”, “xmas_1.png”, “xmas 2.jpg”, and “xmas 2.png.”

Source: Nguyen, T.
6.10 Finally, execute the file called “call_auto_generate.pl” (double clicks on the file for your Window machine to execute the file.)

6.11 After the execution, you should see the following new files: Auto_generate.html, detail_log.txt and error_log.txt. See Figure 6.11 below…

![Figure 6.11. “Christmas_2011” with Auto_generate.html, detail_log.txt, and error_log.txt. Source: Nguyen, T.](image)

- Detail_log.txt will record what auto_generate_slideshow.pl did. This will include any errors encountered during the execution.
- Error_log.txt only records errors or warnings from the execution of auto_generate_slideshow.pl.
6.12 If there are no errors or warnings, you should see like the Figure 6.12 below…

Figure 6.12. “Christmas_2011” with Auto_generate.html, detail_log.txt, and error_log.txt.  
Source: Nguyen, T.
6.13 You can check the results by opening auto_generate.html in “Chirstmas 2011”. Figure 6.13 below…

Figure 6.13. Displays contents of auto_generate.html. Source: Nguyen, T.
6.14 Display the new slideshow by clicking a picture. See Figure 6.14 below…

![Image of a slideshow of auto_generate.html](image-url)

**Figure 6.14.** Displays slideshow of auto_generate.html. Source: Nguyen, T.
7.0 How to Add the New Slideshow to an Existence Page

As an example, you want to add the slideshow “Christmas_2011” to the webpage apply.html. (Important: location of apply.html file relative to “slide_show” folder is important. The current structure is set up to work for this example.)

Figure 7.1 below…

![Figure 7.1. Main directory for Cambrian Center web code. Source: Nguyen, T.](image)

7.2 You will need the following for each existence page that needs a slideshow.

```html
<script type="text/javascript" src="./slide_show/highslide/highslide-with-html.js"></script>
<link rel="stylesheet" type="text/css" href="./slide_show/highslide/highslide.css" />

<!--
2) Optionally override the settings defined at the top of the highslide.js file. The parameter hs.graphicsDir is important!
-->

<script type="text/javascript">
    hs.graphicsDir = './slide_show/highslide/graphics/';
    hs.outlineType = 'rounded-white';
</script>
```
hs.wrapperClassName = 'draggable-header';
hs.creditsPosition = 'bottom left';
</script>

7.3 Add the above code right after the line with the token:

```html
<!--_CONTENT_STARTS_HERE--> That line is located in the <body> block of apply.html as shown in the Figure 7.3 below...
```

```html
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96
97
98
99
100
101

```html
6) Optionally override the settings defined at the top of the highslide.js file. The parameter hs.graphicsDir is important!

```html
94
95
96
97
98
99
100
101
`<div class="positioner">
  <div class="menuholder">
    <ul class="ulTop">
      <li class="liTop"><a class="aTop" href="index.html">Home</a></li>
    </ul>
  </div>
</div>

Figure 7.3. Highlights added code lines 77 to 93 in file apply.html. Source: Nguyen, T.

7.4 Then, you can add the slideshow code for Christmas_2011 anywhere below the code above.
7.5 For example, you can add the new slideshow under the message “Please check back for updates.” Figure 7.5 below…

Figure 7.5. Highlights the added code at line 217 in file apply.html. Source: Nguyen, T.
7.6 Now, opening the updated apply.html file will look like Figure 7.6 below...

![apply.html screenshot](image)

**Figure 7.6.** apply.html includes hyperlink “Christmas_2011.”
Source: Nguyen, T.
7.7 When you click on the Christmas 2011 link, you will see the Christmas_2011 slideshow.

Figure 7.7. Popup Christmas_2011 slideshow for apply.html. Source: Nguyen, T.

8.0 A Closer Look at Slideshow Code

8.1 The key point to know is the highlighted part of the code.

```
<a href="/slide_show/Christmas_2011/auto_generate.html" onclick="return hs.htmlExpand(this, { objectType: 'iframe', width: 800, height: 600, headingText: 'Christmas 2011' })"> Christmas 2011 </a>
```
8.2 "./slide_show/Christmas_2011/auto_generate.html" is the location of Christmas_2011’s slideshow html page.
If you want to change to a different slideshow like _29th_anniversary, you can change it to "./slide_show/_29th_anniversary/auto_generate.html"

8.3 headingText: 'Christmas 2011' is the text display in the upper left corner of the pop up slide show.

8.4 Hyperlink text “Christmas 2011” shows in apply.html is )">& Christmas 2011</a>. Instead of linked text to Christmas 2011, you can replace with an image. For example, )"> <img src='images/image03.jpg' alt='The "grand" finale – a chocolate piano.' /> </a>

8.5 Photos.html shows a built-in slideshow instead of a pop up slideshow. Here is the code if we want a built-in slideshow for Christmas 2011.

<iframe src="./slide_show/Christmas_2011/auto_generate.html" width="756" height="650"><p>Your browser does not support iframes.</p></iframe>
8.6 If you use the code above instead of the code in 7.4, apply.html will look like Figure 8.6 below...

Figure 8.6. Built-in slideshow instead of Popup Christmas_2011 slideshow for apply.html.
Source: Nguyen, T.

8.7 For more examples of insertion code in existing pages, please examine the files WhatsNew.html and photos.html.
Appendix H: Google Form™ Tutorial

REVISION HISTORY

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<table>
<thead>
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<td>Redo document for clarity</td>
</tr>
</tbody>
</table>

1.0 Purpose

The purpose of Google Form™ tutorial is to shows all the features in Google Form™. After watching videos, you should have a good understanding on how to make your own Google Form™.

2.0 Scope

This document is for use by the Webmaster at Cambrian Center. It is assumed a basic understanding of Excel, web browser, and html codes.

3.0 References

3.1 Learns html at [http://www.w3schools.com/html/default.asp](http://www.w3schools.com/html/default.asp)

4.0 All you need to know about Google Form™

4.1 A good video that explains all the features for Google Form™: [http://www.youtube.com/watch?v=DZEjmxTvR4k&feature=related](http://www.youtube.com/watch?v=DZEjmxTvR4k&feature=related)

4.2 A short video on publishing Google Form™ and setting notification: [http://www.youtube.com/watch?v=_aqy76QX_qo&feature=related](http://www.youtube.com/watch?v=_aqy76QX_qo&feature=related)
Appendix I: Installation and Use of SSH for Cambrian Center Web Page

REVISION HISTORY

| Ver. 1.0 | 2011-05-15 | Paul Finnegan | Initial document creation |

1.0 PURPOSE
This document is intended to give a description of the methodology to install a SSH client on a Windows PC desktop and then how to use the SSH client to access the Cambrian Center’s web page directories on their web server.

The Cambrian Center Webmaster will be able to perform many web page maintenance activities using the UNIX prompt to manage files, create and remove directories and run various tools on the remote UNIX system.

2.0 SCOPE
This document is for use by the Webmaster at Cambrian Center. It is assumed a basic understanding of basic Microsoft Windows experience and some familiarity with computer command line interfaces.

This document will cover installation of a SSH Client on the Windows desktop and how to log into and log out of the remote UNIX system.

This document does not cover operations for web site maintenance once at the remote UNIX prompt. This information is contained in other documents and training material provided to Cambrian Center as part of the Spring 2011 SJSU CS100W project.

3.0 REFERENCES
3.1 From Wikipedia: Secure Shell or SSH is a network protocol that allows data to be exchanged using a secure channel between two networked devices. Used primarily on Linux and Unix based systems to access shell accounts, SSH was designed as a replacement for Telnet and other insecure remote shells, which send information, notably passwords, in plaintext, rendering them susceptible to packet analysis. The encryption used by SSH is intended to provide confidentiality and integrity of data over an unsecured network, such as the Internet. For more information please see

3.2 The recommended SSH client we have used for this installation is PuTTY. PuTTY is an SSH and telnet client, developed originally by Simon Tatham for the Windows platform. PuTTY is open source software that is available with source code and is developed and supported by a group of volunteers. The website for its tool is www.putty.org.

4.0 NOTES
4.1 The user of this document should already know the userid and the password for the Cambrian Center web page administration.

5.0 SUMMARY
5.1 Install SSH Client on Windows PC.
5.2 Log into remote UNIX system.
5.3 Perform desired tasks at the UNIX prompt.
5.4 Log off remote UNIX system.

6.0 DETAILED PROCEDURE
6.1 Installation of SSH client on Windows PC
   6.1.1 Note – this step only needs to be done once for each PC that should have access to the web page for administrative activities.
   6.1.2 Open a browser on the Windows PC and go to the website http://www.putty.org/
   6.1.3 You should see a link labeled: You can download PuTTY here.
   6.1.4 Click on the link to begin the download process.
   6.1.5 On the page you will find: “A ZIP file containing all the binaries (except PuTTYtel), and also the help files Zip file: putty.zip (or by FTP) (RSA sig) (DSA sig)”
   6.1.6 Click on the putty.zip file and then select “Save File”
   6.1.7 After the file downloads, select “extract all files” into a new directory: C:\Program Files\PuTTY
   6.1.8 Right Click on your desktop and select New->Shortcut
   6.1.9 Navigate to the file or type in: 
   "C:\Program Files\PuTTY\PUTTY.EXE"
   6.1.10 Change the name to SSH
   6.1.11 Double click on the SSH icon on the desktop.
   6.1.12 Select Run.
   6.1.13 In the Hostname text box enter: cambriancenter.org
   6.1.14 Change the port to 2222
   6.1.15 Leave connect type as SSH
6.1.16 For the **Saved Session** box enter: Cambrian Center
6.1.17 Select Save.
6.1.18 Click Open.
6.1.19 You may get a security warning, click yes if you do.
6.1.20 You should have a login prompt displayed in a window.
   You are now at a UNIX prompt on the Web Hosting Login server.
6.1.21 Enter the account name and press return. Reminder, UNIX is case sensitive.
6.1.22 Enter the password and press return.
6.1.23 You are now logged into the remote UNIX server.
6.1.24 When you are done, type exit and press return and the SSH window will close.

6.2 Using SSH to access remote UNIX system after the first time
6.2.1 Double click on the SSH icon on the desktop.
6.2.2 Select the Cambrian Center profile and click load.
6.2.3 Click open to start your SSH session.
6.2.4 You may get a security warning, click yes if you do.
6.2.5 You should have a login prompt displayed in a window.
   You are now at a UNIX prompt on the Web Hosting Login server.
6.2.6 Enter the account name and press return. Reminder, UNIX is case sensitive.
6.2.7 Enter the password and press return.
6.2.8 You are now logged into the remote UNIX server.
6.2.9 When you are done, type exit and press return and the SSH window will close.
Appendix J: Using Google Analytics™ Bounce Rate

REVISION HISTORY

| Ver. 1.0 | 2011-05-21 | Hun Wie(Theo) | Initial document creation |

1.0 Purpose
This document explains what bounce rate is and shows the methodology of navigation in Google Analytics™ for bounce rate.

2.0 Scope
This document is for use by the Cambrian Center Webmaster. It is assumed Google Analytics™ sign up has been completed by the Cambrian Center Webmaster.

3.0 What is Google Analytics™ bounce rate?

3.1 From Google Analytics™: Bounce rate is the percentage of single-page visits or visits in which the person left your site from the entrance (landing) page. Use this metric to measure visit quality - a high bounce rate generally indicates that site entrance pages aren’t relevant to your visitors. The more compelling your landing pages, the more visitors will stay on your site and convert. You can minimize bounce rates by tailoring landing pages to each keyword and ad that you run. Landing pages should provide the information and services that were promised in the ad copy.

3.2 From Google™ blog: Bounce rate has these attributes:
○ It is really easy to understand. It measures the number of people who landed on your site and refused to give you even one single click!
○ It is available in most web analytics tools, including our own Google Analytics.
○ It is quick and easy to use. Bounce rate will help you understand where and how to make changes on your website in under an hour.

3.3 How to find Google Analytics™ bounce rate
http://slymarketing.com/how-to-find-google-analytics-bounce-rate
4.0 How to find Google Analytics™ bounce rate?

4.1 Log in your Gmail.
4.2 You should see your email account on North East side. Click it.
4.3 Under the tab click Account Settings.
4.4 On your left, click Analytics.
4.5 Under Website Profiles, you should see at http://www.cambriancenter.org/.
4.6 Next to it, you should see View report. Click it.
4.7 Look at the menu on the left side.
4.8 In the menu, click on Visitors
4.9 Click on Bounce Rate, and then you should see like Figure 4.9 below…

Figure 4.9. Overview of the overall performance of your website, and the bounce rate for your website.
Source: http://slymarketing.com/images/google-analytics-bounce-rate.jpg
5.0 How to reduce bounce rate?

5.1 From http://slymarketing.com: There are many reasons why your bounce rate is fairly high. One of the most important reasons is your content. If the content is not relevant for the visitor, the visitor will most likely leave. The same happens if your content is not interesting. For more information please visit, http://slymarketing.com/no-more-high-bounce-rate-step-by-step-guide.