

Team I

Center for Handicapped Children Website

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Problem Statement

The Center for Handicapped Children ("CHC") provides educational and therapeutic programming for severely handicapped children (infant to twenty-one) in Western New York. Currently, our website, <http://www.chcrainbow.com>, is in dire need of updating.

History

The site last had changes in 2003 with the initial intent to serve as a centralized location, for prospective clients and their parents, to find information regarding our program and contact information such as our telephone number and address. For several years the site served its purpose well.

Objective/Goals

However, with the increasing popularity of the Internet, we would like to expand our website to include more socially relevant services, both to ease communication between our staff and parents, and potentially generate revenue.

In the new website, we would like to not only make it attractive to visitors, but we also need it to integrate many of our records into one easy to use location.

At the very least, our website needs to have the main page which has information regarding our organization such as our mission and recent updates. These pages should allow people to find to other information about our organization such as our future plans and the recent news. It should have links, which can display the schedule for the therapy and about some major events going on.

Requirements

Functional Requirements

We would like to have an easy to use method to change and update the website ourselves. This way, we can update our website without needing to know all the technical jargon and programming that goes on behind the scenes.

We would like to see the new website allow patrons to donate through their bank account or a credit card. These donations can be used to improve our facilities and ultimately benefit our children. We would also like a method, similar to E-Bay, of auctioning off crafts / art that our children create to benefit our center.

The website should also contain an abundant amount of resources and information regarding child disabilities and a centralized hub to facilitate the discussion between staff members and parents. This hub can act both as a support group and a means answer parents questions while maintaining a level of anonymity.

We would like to have ways of providing progress and status updates, not only as of the current time but also a historical record so that the staff knows where to focus their attention for each student.

We must protect the privacy of the children and ensure that access will be provided only to those authorized to have access to certain records. We would like to have direction to reach to CHC and the maps to get there in shortest way. We would like to have an application which can be useful for parents to get their handicapped children enroll in CHC, a sort of online application.

User Profile / Environment

For our system we will require many different and varying levels of users, and also potentially even the ability to add more over time. A list of different types of users that we have already thought of runs the entire gambit of people associated with the center. Many of which may have a very limited technical skill set, so ease of use for these are a major necessity.

Clients - The parents and guardians of the Children who attend our center. We would like them to be able to do various things including but not necessarily limited to: viewing their children's progress, Communicating with our teachers through a virtual notebook similar to the notebooks that now go home with the children, daily schedules for their children, and additional at home activities.

Teachers - The teachers needs encompass all those needs of the client but on a larger scale because they will be responsible for all of the children under their care. Additionally though our teachers will need access to other areas only accessible by employees.

Specialists - These users specific needs will be very similar to that of the general teachers however they may need specific access to details of the children with regards to their specialty.

Center Administrators - These will be people in administration here at the center. Their tasks will be to oversee the information in the system and to be able to run reports for bookkeeping, information tracking, and for reimbursement via health care systems and other means. In addition these users will need to be able to add and remove users of other groups as new Employees and clients join and leave the center. These users will need to be trained on the System more rigorously than any of the other levels, as they will have more responsibility for day-to-day operations. In addition to the training there should also be documentation for these

users readily available.

Volunteers - These are unpaid people who may volunteer their time and services for the benefit of the center. With their access they may need the ability to view only specific pieces of information. An example of this may be a volunteer whose job it is to escort students from one room to another or who help with feeding students, for these tasks they would need to be able to check a daily schedule of where they are needed.

Other General Community Members - These are members of our local community that may want to be able to find information and discuss general ideas for helping with these handicapped children.

Potentially in the future too we may even want to add the ability for online learning features for the students. So we would like whatever system for the user management to be extensible for later additions.

Constraints

The final system must be able to be hosted on a standard environment that can be found on most commodity host providers. The site should be able to be compatible with any browser so that any device can access the site. The public site should comply with the Web Accessibility Initiative so that all information is accessible to the public.

To maintain the privacy of the clients' and their health records, in accordance with the Health Insurance Portability and Accountability Act ("HIPAA"), the system must enforce strict security and accountability rules that can be audited. The primary method for compliance with HIPAA will be user authentication and user tracking.

The public site needs to have a firm launch date near the end of 2009.

Proposed Solution

The final product should be custom built and designed from the ground up with security & accountability in mind. To facilitate cost effective long-term support, the system should be built on top of open source software (when possible) that has been proven to be a suitable platform for a project of this scope.

Public Site

The Public Site must be an attractive information portal, allowing access to prospective parents, donors, volunteers, future staff or anyone who wants to find more about CHC. The site should include the following:

- Information currently on the web site
- Calendar of upcoming events and links to event details.
- Staff Information and Qualifications
- Services and Programs offered
- Contact Us - CHC contact information and an email contact form.
- Photos - photos of recent events uploaded by the CHC staff.
- Facility
- Online application for employment
 - Teachers and assistants
 - Administrators
 - Volunteers
 - Gather personal info and availability.

- Auction Listing
 - Privacy and security of the prospective buyers personal information are of the utmost importance.
 - An EBay like implementation the uses paypal
- Community Forum that ties Private site users and Public users together.
 - Needs a disclaimer so as not to violate HIPPA when the parents talk about their children
 - The forum will be a place where current parents can share stories and ideas of what has worked for their children
 - Public users can communicate with parents involved with the CHC
 - Should be a place where parents can get support from other parents

Secured Private Site

The Health Insurance Portability and Accountability Act (HIPAA) requires medical information remain secure and available only to those with proper consent. Therefore there must be multiple user levels with different access and accountability. For example, parents should be able to view information regarding their child after proper authentication. Staff members, volunteers, and administrator would also have access, but each group limited based upon their needs. The secured private site should have a section securely accessible by parents and guardians. The staff would provide this information. There should also be an internal administration section to ease the work of our staff.

For parents/guardians provided by staff.

- Schedule
 - Parents should be able to see a list of the past, present and future occupational, speech, language, or physical therapies their child as received.
- Staff Feedback
 - After each class or therapy session, staff is required to fill out paperwork documenting the progress. Currently the children carry around with them a notebook in which staff can document their progress and provides feedback. Since the notebook is often lost, we would like to have our staff enter this information online so it is easily accessible to both staff and parents.
- Comments and Documents
 - In addition to staff feedback, we would like the parents to provide feedback of their own. This can either be through commenting on staff feedback or by sharing documents.

Internal Administration

- Automated therapy/specialist record keeping
 - Our staff spends a good portion of their day doing paperwork and keeping records organized. Since many of this information is redundant across many forms we would like to be able to enter information in one location and that would complete all the necessary paperwork. For example, much

of the feedback provided by the staff for parents can be used for the forms required by our insurance company. The time saved can then be spent with the children.

- Content Management
 - There needs to be a means to edit the content on the public site. That way, we can update the site regularly with accurate information.

- Donation and Auction Management
 - A system to accept donations and transfer them directly to our bank account is necessary. We would like this to be integrated with the public site, so if a patron does not donate anonymously, we can thank him/her. We would also like a way to add items to auction. We would like to include a picture and a price and allow people to bid on the item. This should be similar to E-Bay.

Project Deliverables

The CHC expects that the following list of items will be delivered on a timely basis. We also requests a timeline of when to expect the following items. We expect that all the following items are delivered chronologically to prevent mistakes from carrying onto subsequent items. Some of the following items may be delivered simultaneously due their integrated nature (e.g. Public area combined with private administration area component). It is the responsibility of the engineering team to decide which items may be combined for delivery. We clearly state which components belong to the Public Site and which components belong to the Private Site.

Public Site: Design Draft Review

- We would like to see a proposed design for what the site may look like. This is one of our top priorities because of the hideous design of our current website. We would like to be involved in what the new site may look like and we feel that seeing a mock up of the design prior to creating the website is a wise decision. It is advised that your team work closely with us at first to obtain a very general design and work from there. We expect to see at minimum an image screenshot in JPG or similar format that displays where elements of the webpage will be placed. We do not require that an actual webpage be created at this step. At the very least, the image should contain a header, navigation menu, body, and footer. We will either approve or disapprove of the design (with suggestions). The project should only progress after a design is approved. After a design is approved, we expect the source files for the design (Adobe Photoshop, Printshop Pro, etc). Your source files will belong to our corporation for copyright purposes.

Public site mockup (working prototype of the draft)

- We expect a live mockup of the website at this point in the project with the design in place. We will need a contact page, a home page, a sample calendar (with fictitious events), donation area (preferably working), and possibly a forum/blog. This part of the project is only required to let us know of your progress so that we may guide you in the event that you are not exactly doing what we need.

Private site: Design Draft Review

- The private site design should be similar to the public site so that there is a consistent look and feel. This design will incorporate all the additional abilities that will be available to the end users. Since there are numerous modules and many of them will be used on a daily basis, it is important that it is clear to us how to use it, and clean so that we easily add on to this interface in the future. This design will be subject to approval by CHC, and will become property of the CHC.

Private site mockup

- A website with live navigation should be reviewed by us for usability. The site need not actually function, but provide the design implementation and an accurate representation of how the private area will function later on. We may decide to not implement all the functionality requested or modify our requirements to better reflect our organizations' goals.

Public site release candidate/Administrative Area of Private Site

- At this point, you should have a website ready to replace our current website. We require that the site be prepared for production and release. There must be no errors in the website design (e.g. header pixilated, broken links). At this point, we request that all source files for the website be provided to CHC. In addition to the public site, we also require that a working content management system for this website be provided to us so that we can fully populate the site with information.

Administrative Area training

- To prepare for the launch of the public site, our administrative staff must be trained on using the content management system. This training should be adequate for us to input all of our information into the system by the launch date. A follow up to this training should be provided when the completed system is delivered.

Public site Launch (Administrative Area of Private Site)

- At this point, we expect that the new website (both public and private) will become live, replacing the existing CHC website. Security is of the upmost concern and we also expect that the server that hosts the website is secure for future additions to the website that will occur later in the project. Prior to releasing the new website, you must obtain the final approval from the CHC.

Private site Release Candidate

- The features and functionality should be complete and able to work with our real data. The system will be tested by a select group of staff and parents to ensure it is accessible and navigable. While observing staff and parent interaction with the system, it is important that the Private site is adjusted as needed to make it professional and secure.

Staff Training on Private site

- At the point that we decide that the Private site is ready for us by our customers at large, we will host a training session for all staff and employees of the CHC. This training should be considered final and accompany accurate documentation for future reference.

Private site Launch

- At the time the site is launched, the CHC will take over all source code and the private site will be upgraded. During the time immediately following the launch, the site should be monitored for stability and security and any issues that should be corrected.

Future Plans and Expandability

This project is only a start to the center's future web integration plans. This should be taken into consideration to streamline the integration process of new features to the CHC website as they are needed.

The site needs to be documented fully to enable future development teams to integrate new features effortlessly. The CHC website should have a plug-in like system that allows for additional sections to be integrated on the site without modification of the existing code. The center does intend on hiring future developers to place new features on the website and the center would prefer to not need modifications to the existing website by such developers.

One such project that the CHC has plans to integrating in the future is a badge tracking system. This system will enable staff members and parents to track their children's location within our center at any given time during the day. When the development team for this project is finished, this feature will be added to the website and it needs to be easily implementable.

In addition to documenting how the website works technically, non-technical documentation for the CHC staff should be thorough as possible and cover a wide range of possible questions that the future may hold. In the future, the staff may need to reference this documentation to perform updates to the existing website and this document must be easily understood.