# Designing an Appropriate and Effective Front-End System

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#### **Abstract**

The front-end of a website is arguably as significant as the back-end of a website due to the amount of time a user will interact with the front-end. The front-end of a website is how the user sees and interacts with the application while the back-end focuses on how the website accomplishes the user's interactions with the application (Long, 2012). Examples of a back-end typically consists of three parts: a server, an application such as WordPress, and a database (Long, 2012). The front-end deals with the design and responsive elements such as creating logos and backgrounds in Adobe Photoshop or Illustrator, importing fonts and color pallets through CSS and HTML, and creating appropriate plugins through JQuery or JavaScript (Long, 2012). As a result, it is crucial for a developer to research, plan and implement appropriate design elements into the front-end of a website. This will increase the usability and functionality for the target audience of the application. The target audience covered in this paper will be parents utilizing a day care application such as South End Community Day Care.

### Researching a Target Audience

The first step in implementing an appropriate and effective front-end design is to research the target audience. "When I think of a target audience, it brings me back to English class. My teachers were always reminding me to choose an audience and to write to them. I would just ignore their suggestions and write to whomever unconsciously. You know that saying, "When will I ever need this in the real world?" (Klumb, 2014). This is a prime example of when knowing your target audience is vital to designing a front-end in a real world scenario. "Competitive web designers understand that choosing colors, fonts, and writing appropriate content based on the client's target audience and brand is a critical aspect of web development (Klumb, 2014). A technologically savvy high school student that browses the internet daily will typically view and interact with a website much differently than a parent who rarely interacts with websites. Similarly, designing a daycare will incorporate numerous different design elements than designing a banking service for parents. "If you or your client have no idea who you're designing for, you're really taking a stab in the dark and hoping and praying you come up with something" (Gaines, 2011).

Furthermore, there are several impactful features that knowing the audience will contribute to a website. These include impact on design, content and tone, navigation, and driving traffic (Hartstein, 2014). Identifying the audience will help the developer understand the best way to approach the website's feel and look (Hartstein, 2014). These design implications include: photos, colors, font size and style, and the overall layout of the website. (Hartstein, 2014). The impact on content and tone will decide how it should be catered and written. For example, the tone and content will be vastly different when written for a child than for an adult in academia (Hartstein, 2014). The impact on navigation will decide what information should be prioritized and categorized appropriately (Hartstein, 2014). However, the main goal of the navigation is to be intuitive and easy to use regardless of audience (Hartstein, 2014). It is key

when trying to decide what content to give a more prominent placement, to lean towards the information the audience will be seeking (Hartstein, 2014). Lastly, the impact on traffic will ensure the proper use of keywords are used to direct traffic to the website. It is important to use keywords that the target audience will type into search engines. (Hartstein, 2014). "If you're looking to drive folks with little familiarity with your mission, you'll want to avoid any jargon they may not know. Alternatively, if you're trying to draw visitors with an in-depth knowledge of your area of expertise, some industry-specific terminology will likely be more appropriate" (Hartstein, 2014). In regards to a daycare, utilizing search terms that describe the daycare would be most effective such as the location, hours, age groups, waitlist, and activities. Furthermore, referral traffic which is when a user clicks on a link redirecting to a webpage can greatly increase the traffic and knowing the audience can help decide where to implement referral links (Hartstein, 2014). "This can include industry-specific blogs, forums, social media channels and related websites. You need to know who you're trying to drive to your website before determining the best way to do so." (Hartstein, 2014). In regards to a daycare website, having a referral link on a school webpage or Yelp would more effectively garner attention than on a personal Twitter page. This is because it is more likely for a parent to visit a school's website than personal Twitter link when looking for daycare recommendations.

Lastly, if there is still uncertainty in understanding the target audience there are more strategies that can be implemented to decrease the communication gap and increase understanding. In regards to designing for parents, newsletters such as electronic versions or hard copies to take home, open houses, phone calls, and flyers in the newspaper can gather more data to apply for designing the website (Schleig, 2012). After gathering all the information and feeling confident in understanding the audience it is time to start designing. However, "just because you're designing with greater intentions does not mean you forget any of your fundamentals" (Gaines, 2011).

## **Design Fundamentals**

Incorporating theories of design is just as important as understanding the target audience. The greatest fundamental theory to incorporate is visual hierarchy (Gaines, 2011). This theory states that creating a hierarchy or importance is based on what is the biggest and what is the smallest. (Gaines, 2011). Important features should be larger while supplementary features should be smaller such as using a larger font for headlines and a smaller font for the content. The second important aspect is placement and placing important features at the eye level. For example, whether a headline or picture it should be above or at the eye level because putting it below the eye level or out of the initial view will go unnoticed when a user scans a website (Gaines, 2011). With visual hierarchy, it is important to keep in mind the layout, the balance of the layout, and proximity (Gaines, 2011). Everything should make sense and should be legible (Gaines, 2011). A good practice is to compare website design elements to magazines or newspapers which also use fundamental design theories. The most important rule to take

from this practice is that a user, whether a parent or savvy high school student, will scan a website rather than read it. As such, it is fundamental to utilize these design elements to visualize the important elements. In regards to a day care, enlarging features at the eye level such as the title of the website, the location, the opening times, and the navigation bar would effectively accomplish these design elements for a parent scanning the page quickly. On top of these design elements there are also some important trends and best practices that can be referenced.

#### **Trends and Best Practices**

Understanding fundamental design elements is the initial step in designing an effective front-end. The step must be taken further to look at industry standards, trends or best practices to understand what design elements work for a particular website theme. However, designing a website for kids or families with children in mind is not so different than any other websites in many ways. (Fekete, n.d.). It forces the developer to "think about distilling down the web experience to its basics such as putting the information the audience wants up front, in a child friendly and intuitive manner." (Fekete, n.d.) In regards to a day care, although the target audience is not the child but rather the parent with a child, it will still use similar design approaches. This is because employing the same design approaches as a children's website will make the parent feel confident that the business or institution "get it" (Fekete, n.d.). For example, a corporate website such as one with dull or muted colors, serif-fonts such as Times New Roman, and a structural layout will be less enticing to parents than ones with bright colors, sans-serif bubbly font, and a more fluid layout when applying for their children's day care. "If the parents show it to their children and if it looks too corporate and grown up, the kid's reaction will be "eh, whatever" and the parent will look somewhere else." (Fekete, n.d.) As a result, there are several trends and best practices for implementing a child friendly website for prospective day care parents.

The first is to stimulate the senses using bright and vivid colors (Lazaris, 2009). "Humans are mentally stimulated by a number of factors, and this is especially true with children" (Lazaris, 2009). Successful children's websites utilize several design elements and principles that create an environment suitable for a child's personality and interests (Lazaris, 2009). Bright colors are exceptional at holding a children's attention for long periods of time and big colors make big impressions on children's young minds as seen in Figure 1 (Lazaris, 2009).



Figure 1. PBS Kids (Lazaris, 2009).

Another element to utilize when designing a website for a day care is the use of natural elements that children can easily relate to such as trees, water, snow, and animals (Lazaris, 2009). A prime example is seen in the Disney website in Figure 2 which uses a Grand Canyon like landscape and imagery of toy cars and animals (Lazaris, 2009).



Figure 2. Disney Website (Lazaris, 2009).

Illustrating a happy mood whether through vibrant colors or imagery such as a smiling face is another important element. A cheerful and positive mood will allow kids and parents to remember to return to the website if their experience is a happy one (Lazaris, 2009). As well, using a large-than-life element through typography and the navigation bar are commonplace design elements (Lazaris, 2009). Oversimplifying these areas will allow for simpler navigation for children and parents. Figure 3 illustrates this example strategically by using both a large navigation bar and imagery to aid the headings.



Figure 3. Pegga Pig (Lazaris, 2009).

Lastly, implementing interaction for both the child and the parent are important features for keeping the child entertained and for the parent to visualize the experience. Having a day in the life video featuring children interacting at day care is a great feature for the prospective parent to understand the day care's features.

#### Compare

If a developer is still struggling with creating an effective and appropriate front-end for a day care or any client, looking at other websites of similar nature can prove invaluable in gathering information and inspiration. A quick search on the internet will bring up countless attractively created and successful day care theme websites to draw help from such as in Figure 4 and Figure 5. Both of these examples were listed under "Outstanding Theme for Professional Childcare" by colorlib which specializes in free and premium website themes.



Figure 4. Kiddy Website (Colorlib, 2016).



Figure 4. Child Doris (Colorlib, 2016).

Furthermore, both these websites' themes draw from similar features and design elements. They both have a large header featuring smiling children, a variety of bright and pastel colors, a white background, a large navigation bar and sans-serif or rounded fonts. The websites' themes also feature visual hierarchy to emphasize the header and the important information such as the navigation bar. The navigation bar is straight forward and easy to navigate through and is supplemented with icons as well. Lastly, if the developer is not eager to create a website from scratch there are an abundance of similar templates available to edit and personalize.

#### Conclusion

In conclusion, there are an abundance of resources available to create effective and appropriate front-end systems for a day care or any project. By researching the target audience, utilizing fundamental design elements, looking to current trends and best practices, and comparing and drawing inspiration from well designed websites with similar themes, the opportunity to create effective front-end systems are endless. Front-end is what the user will see and interact with upon visiting a website and as a result it is crucial to deliver a website that encompasses usability and proper design elements.

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