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The Hidden Literacy Behind Website Development

Websites are one of the most effective ways to share information in modern times. We often see them as simple and intuitive. Though, websites are carefully crafted to be simple and intuitive and requires much more than knowing how to code. In fact, there is a whole community of website developers that debate the best practices when it comes to websites. A user has certain expectations of a website which must be considered by a developer in order to ensure the satisfaction of the user and a successful exchange of information. In essence, a website must have characteristics of simplicity, intuitive design, and accessibility.

My research matters to the reader because everybody has encountered a website and the quality of that website can impact the reader in a dramatic way. The user experience of a website can impact the efficiency of data gathering from the user. This means that when you use a website you expect it to easily find the information you are looking for. My argument impacts the way I look to solve the issue. My view is that more web developers should be aware of the literacies involved in creating a website and how to improve them. My research mainly applies to web developers who can increase their fluency in the multiliteracies involved in website development. For non web developers, they can learn what makes a website good and what to look for when judging the quality of a website.

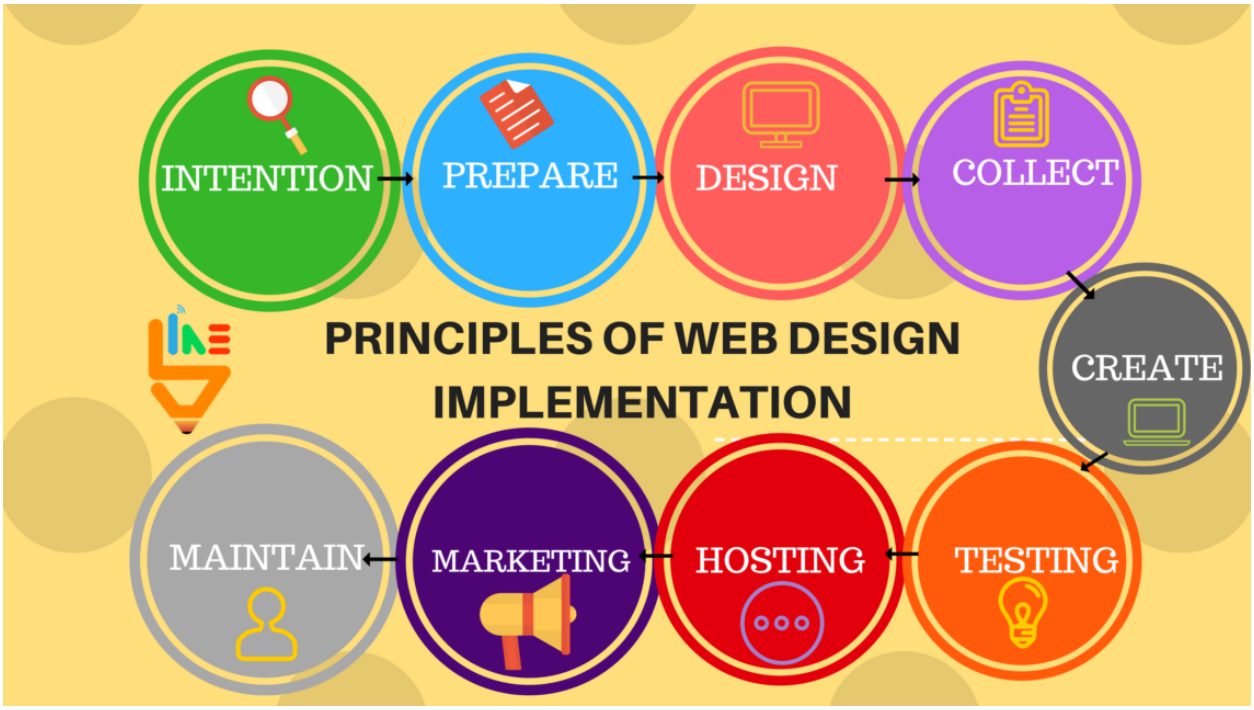

Fig. 1. Principles of Website Design.; 5ines; 5ines.com, 19 Dec. 2008, 5ines.com/blog/the-9-principles-of-website-design-implementation.

Simplicity

The best way to present information is to have clear paths to understanding that message. If you were to have a plethora of information packed into one page, you would quickly overwhelm a user and fail to share the information as intended. The preferred approach is to break down the information into simple pieces that can give the user information based on their needs. In the same way this paper uses headings to define structure, a website has several pages and sections that break down the information. The more information that can be simplified, the more enjoyable and productive the experience is for the end user.

Intuitive Design

When you visit a website like google.com, you come with a set of expectations of how the website should work. For example when you want to search for something, you expect to be able to click on the magnifying glass to search your input. This may seem obvious but there has to be a distinction between elements you can press and elements that you cannot. The way a website communicates this to you may be subtle but dramatically increases the usability of the website. An example of the google.com communicates the purpose of the search bar is by focusing it with a shadow whenever the user positions their mouse over the search field. This communicates that the search bar is important and can be clicked. When creating a website, all the intuitions of the user should be correct or else it fails at giving the user an enjoyable experience.

Accessibility

A well designed website can be perfect in simplicity and intuitive design, but will still be incomplete if nobody can use it. What I mean is if a user is colorblind and a website decides to put text that is hardly visible to that user, the website exclude that user from using the website properly. This is why accommodating for your audience as much as possible is so important for a website. If you ignore an entire group of users because of disabilities, then you lose the power that a website can have to share information.

Multiliteracies

The traditional definition of literacy as it pertains to written text is not sufficient to explain the multiple literacies required for making a website. Tony Mirabelli offers a more useful definition for literacy, where “Literacy extends beyond individual experiences of reading and writing to include the various modes of communication and situations of any socially meaningful

group" (Mirabelli 302). The idea that literacy is not only being able to read and write text, but rather extends to a more figurative idea of literacy, is useful in appreciating the literary significance of website development. Multiliteracies pertains to the array of literacies needed to perform an activity. The main literacies used in website development are computational literacy, social literacy, and design literacy.

Burbules makes an interesting case that the defining feature of websites is their link to the interconnected web (102). He claims that it allows for a more critical type of literacy than one might expect. Smith also brings up an important idea that all digital media requires literacy (15). Together they agree that the electronic literacy offers a critical literacy in the modern age which cannot be overlooked. The way we interact with technology today shows exactly how important this type of literacy is becoming which makes it more important to research this field.

Apparently during Smith's research, he discovered that through the digital projects being worked on, the participant began to transcend linguistic barriers and became literate in social literacy(19). Social literacy is also used in website development when designing the website as well as when working on a team to complete a website. Barbules discusses a different form of social literacy where the interconnectivity of the world wide web brings us together and is inherently a social activity(16).

Though previous research has done a great job at either focusing on the literacy involved in the digital era or explaining the design philosophy of making a website, there has not been extensive research into the way multiple literacies are used in making a good website. Website development has complex literacy requirements that need to be further studied and fleshed out. How are multiple literacies used in making a website that is engaging for the user and

communicates information in a neat and efficient manner? As apart of this community myself, I feel as though it is important to use the knowledge of multiple literacies to improve the overall quality of websites and user experience.

I intend to find the answer to this question by observation and interviews with users of a website. In this paper, I study the ways in which computational literacy, social literacy, and design literacy is used in creating a website. The layout of this paper includes the method in which I conducted my research followed by my findings including computational literacy, social literacy, and design literacy headings. After my findings I conclude with a discussion on my findings and how it is important in the bigger discussion on multiliteracies in the technological field.

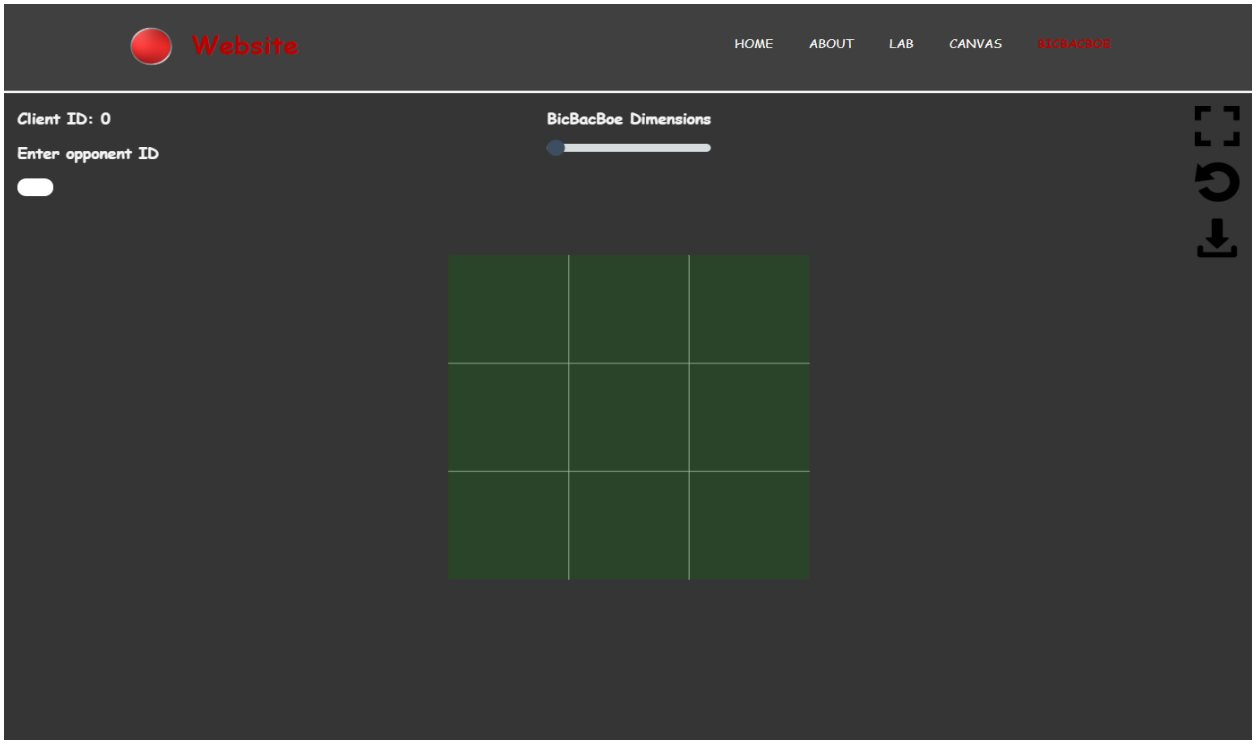

Fig. 2. Custom Website.; pstoebenau-website; pstoebenau-website.herokuapp.com, 19 Dec. 2008, http://pstoebenau-website.herokuapp.com/BicBacBoe.html

Method

Most people overlook the literacy involved in making a website because it looks so foreign. I look to explore how I can expose these literacies involved in website development through interviews with users as well as website developers in order to get both sides of the interaction involved with websites. My main goal was to extract the literacies involved in making the website. I did this by asking questions that were easy to understand and answer but at the same time would give me descriptive insight into the multiliteracies of website development.

The reason I chose to do an interview was because it was convenient to conduct. I was able to interview people that I knew which gave me more of a range as to what type of questions I could ask. An interview gives lets me go deeper than a survey which is critical in interpreting the multiliteracies used in website development.

My first interview was targeted towards a user of the website. The purpose of this interview was to gain insight on the social literacy involved in website development. The hope was that through questioning the user's feelings towards the website and their experience with using it, I could gain insight on how different elements of the website can affect the user's experience.

My second interview was targeted towards a computer science major who shares the same computational literacy with me. In interviewing this participant, I would gather information on how computational literacy is essential in making a website. Computational literacy is how any website is created and the use of this literacy is a big part of website development. Because of this I wanted to go in depth in this interview to find out what it takes to become literate with computers.

My final interview involved questioning another computer science major who could give insight into the world of designing for the end user. The purpose of this interview was to explain the use of design literacy in website development. I made sure to ask questions that reflect the design choices that make a program or website pleasant to use. These questions focus on design literacy but use language that is familiar to a computer science major in order to keep the conversation going fluidly. This in turn allowed me to extract more information from the answers as there was more data to extract from.

Results

I gathered a multitude of perspectives and opinions on website development from my interviews. My first question focused on what the interviewer thought was the most important aspect of a website. I got different answers from the interviewers because of their background in website development. The participant that was affluent in website development shared that responsiveness and usability was the most important aspect of a website. Another perspective from an avid programmer not in website development insisted that performance and information was the most important aspect. Interestingly the participant with little to no experience with development, also valued responsibility and usability.

My second question focused on the computer literacy involved in website development. This includes the various skills needed to complete a website such as programming languages. I chose not to ask this to the interviewee with no experience in development because there would be little value to their answer. The participant with coding skills in areas other than website development answered with list of programming languages associated with website development such as html, css, and javascript. On the other hand, the experienced website developer answered

not with a list of programming languages, but rather explained how website development has so many different modules, frameworks, and libraries. He said that because of the seemingly infinite configurations for a development platform, the hardest part of creating a complex website is choosing the right development platform.

For the final part of my interview I asked about the look and feel of a website. This corresponds to the design literacy involved in website development. When asking the participant with no development experience, he gave a liking towards big websites with a clear layout, big images, lots of space, and focused text. This preference seems to be universal at least amongst my interviewees. Both the experienced website developer and the programmer agreed with the design preferences stated earlier with only minor deviations such as color scheme. This shows that the design of a website can be made to visually appeal to many people with differing tastes.

Discussion

These interviews show the amount of work and consideration that goes into making a website. There is clearly multiple literacies involved such as social literacy, computer literacy, and design literacy. What is interesting to see is the differing views of people with different levels of familiarity with website development. With my first question about the most important aspect of a website, the website developer knew what the user wanted while the avid programmer did not understand the essential needs of the user as well as the website developer. My second question brought up an interesting point on computational literacy. Most people might think of computational literacy as just knowing how to write in a certain programming language, but there has to be considerable research into what types of technologies to use for a complex website that often is not considered by someone with no experience in website

development. Even the experienced website developer said that choosing the right development platform was one of the hardest tasks to do for a complex website. The final part of my interviews shed light on the design literacy involved in website development. What was useful was seeing how all the preferences of the three interviewees converged into a single design that offers universal appeal. I feel that this is an important take away since it shows that with enough consideration to the audience of your website, you can create a design that will appeal to the majority of that audience.

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