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Independent study with HTML5
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HTML5:

The Next Step in Digital Coding Language

One of the ways in which technology evolves is that it becomes simpler in form, takes up less space, becomes easier to understand, and is more productive and complicated in structure. While the use of digital web technology ranges between platforms and browsers, one of the hopes, like all language, is that the creation of a universal code will gives everyone the ability to communicate in a better and more efficient way. But, what is critical to the advancements of all technology, especially with communication devices like web browsers, is that the latest versions find and fix the problems of the past and in doing so makes the language more minimal. This simplification of coding recalls an important process in communication: language and technology evolve through the recognition that it mirrors life and becomes an extension of the individual's relationship with the world. One of the issues at the heart of any language progression is the abandonment of peripheral data not being used by a community. This abandonment can be seen as both beneficial and detrimental to an understanding of language as a whole. But, in most cases, the rejection of nonessential information makes room for language to evolve. The recent development and launch of HTML5 is another advance toward a simpler, smaller, easier, and more succinct way of communicating. This paper will isolate a couple of the changes taking place in the HTML code in order to exemplify how even computer code mimics the evolution of language.

HTML5 emerged out of HTML-- HyperText Markup Language-- and XML--Extensible Markup Language. HTML was created by the software communities *World Wide Web Consortium* (w3) and the *Web Hypertext Application Technology Working Group* (WHATWG). HTML has been used as the standard markup language, the written code, for the majority of contemporary web applications. "HTML is the basic building-blocks of webpages….HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts in languages such as JavaScript which affect the behavior of HTML webpages."[1]   While HTML was designed as a way to display digital data files, XML was designed as a way to transport and store data. Thus, XML is more internally structured to work between platforms, while HTML uses these internal structures and presents them as external solutions. One of the main problems with both HTML and XML is that these systems relied on a variety of source codes and platforms for their creation, making both HTML and XML very confusing and sometimes profuse. HTML aims to correct these unneeded crossovers and extravagant code. Defined by HTML5.org this new coding language is presented as "a single language that can be written in HTML and XML. It attempts to solve issues found in previous iterations of HTML and addresses the needs of Web Applications, an area previously not adequately covered by HTML"

The creation of HTML5 was a group effort. A group of software engineers and coders, called the WHATWG, came together in 2006 and 2007 and decided that the XML

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[1] Wikipedia contributors, " HTML"

language was not being used to its fullest potential, partly because of the complexities added into the code. When the group met they decided that a new coding language needed to be developed and so started working on the new version of HTML. This group had some of the best software and webpage engineers in the business including Ian Hickson, who would become the leader of the WHATWG group. During the process, Hickson moved from Opera to Google and continued to work with HTML 5. Although the project was spearheaded by a small community, Hickson and the others wanted to hear from users and coders who also could use and mold the code language for better use in general. In order to create a more widely used language they opened this project up to suggestions from the larger online community. "The process has been highly unusual in several respects. The first is the extraordinary openness; anyone could join the WHATWG mailing list and contribute to the spec. Every email was read by Hickson or the core WHATWG team (which included such luminaries as the inventor of JavaScript and Mozilla CTO Brendan Eich, Safari and WebKit Architect David Hyatt, and inventor of CSS and Opera CTO Hakon Wium Lie)."[2]

One of the best ways to tell what coding language a webpage uses is to look at the "Page Source" in the "View" menu of the website browser. For our own purposes in the paper, this is the place where we can breakdown how HTML works differently than earlier coding languages and how this language relies on a minimal amount of assumed knowledge a browser has already built into its translation. In many ways HTML5 code calls attention to what the browser understands and what the writer of the code needs to know in order to get a page working correctly. The complexity of browser knowledge

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[2] Lawson and Sharp. p. xii

has increased to a point that code can now be much simpler and much more direct than what the older systems allowed. This seems to be the key reason for HTML5's implementation. Take for example the initial starting lines of any general HTML webpage in relation to an HTML5 webpage. The first set of code below is a normal start to an HTML page and can be viewed in the page source of the page I created last year for the MATX eportfolio review.[3] Here, this elaborate code notifies the browsers of its presence as a website. The doctype seen at the top of the code tells that it is in fact HTML and the originating code parameters derive from the w3 organization. This code has been used in almost every website up into the creation of HTML5:

```
  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
 <html xmlns="http://www.w3.org/1999/xhtml">
 <head> <meta http-equiv="Content-Type" content="text/html;
charset=UTF-8" />
```

The second set of code comes from the HTML5 website titled "Tattoos by Neal."[4] < http://www.tattoosbyneal.com/>. This new HTML5 code does the exact same job as my own eportfolio HTML code. The reason the two are different is that the second is presented in its simplest form, that the second assumes the browser's knowledge is advanced enough that it understands it is looking at a website page structure. In HTML5, the unneeded information is removed from the code.

```
 <!DOCTYPE html>
 <html dir="ltr" lang="en-US">
 <head>
 <meta charset="UTF-8" />
```

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[3] EATRVA.org

[4] Neal Koch

While changes in the coding languages seen in the examples above are all through the new HTML5, another major modification in HTML5 code is the removal of generic div tags, or boxes of information know as <div>. In the past divs were sections of the webpage that could be treated as independent containers within the page itself. Within a div container the coder could create and manipulate that information, may it be text, images, video, sounds, etc, and not have to worry about the written interfering with the outside of the container. What HTML5 does is that it gives the writer of the code the ability to specify what the container is used for. Where <div> in the past could be a container for a menu bar, a segment of text, the name or logo of the website, etc, what the coder has now is to call these containers by specific names, "Header" for the logo/name, "Nav" for the navigation or menu container, "article" for the general body text, "footer" for the general acknowledgments and site/author information, etc. Here, the <div> becomes special instructions for the reader of the code where before one could spend time trying to sift through the code in order to understand what section they are looking at. This change in the treatment and specific renaming of the container will allow for faster reading and working with the page code. It will also allow for further advancements as to the ability and composition of what a container does. Take for example the recent music video by the music group *Arcade Fire* <http://www.thewildernessdowntown.com/>, [5] In this video the creator of the experience has engineered a complex environment of web structures all in HTML5. In the "interactive film," Chris Milk, compiles multiple web pages that pop up independently and without direction from the viewer. Here, in order to view the source code one would

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[5] Chris Milk

have had to break down all the ins and outs concerning div tags. Now, it would be possible to view the container code easier and more flexible than ever before. What this small change in div tags does is it opens up the way we can look at code. In fact, the new HTML format would be likened to the decoder ring found in a box of cereal. In this case, even you and I could see in an easier way what the writer of the code did in order to achieve an effect.

While, I have only listed two seemingly small changes in this elaborate language I can assure you these changes make way for easier reading and working, more flexibility in structure, and refined use of the precise language needed to get something accomplished. Like any language, HTML and HTML5 have nuances that take years to attain. With the advancements in HTML code the language is becoming more democratic, more universal. While, I have only touched the surface of HTML and HTML5 with my own website I hope to come to some sort of foundational knowledge of coding over the next several months. My previous website was done mostly in Flash which has proved to be problematic when viewed on mobile devises. The Flash programs seem to be falling out of preference because of their difficulties on Macintosh computers and mobile devises because the program "bogs down" the devices readability and causes sites to crash. Apple chooses not to support Flash, a product of Adobe. Therefore, a stand was made for a better, more appropriate web code. HTML5, for this reason, seems to be the future of website design. For me, I have jumped into the code first trying to learn HTML and then being told by the writers of HTML5 that I did not need to know what I just learned. While it is a frustrating task I already find that I understand a little bit of why the old coding system needed to be reconstructed.
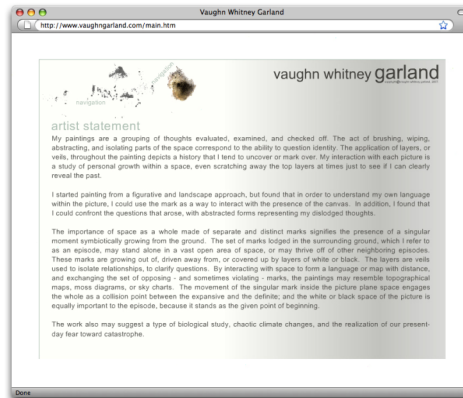
Unfortunately, like my own slow work to get through the HTML code over the semester our own browsers have yet to come to terms with the possibilities of HTML5. I am sure that will change quickly.
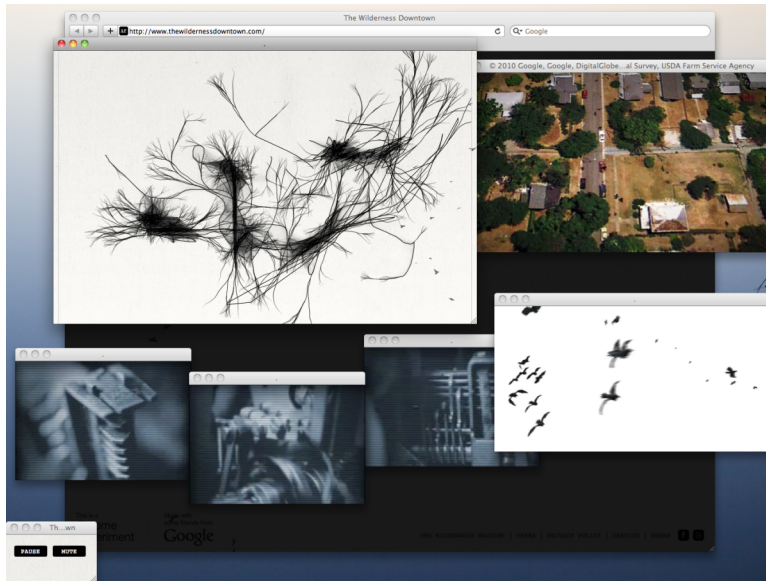
Milk, Chris and Arcade Fire
The Wilderness Downtown
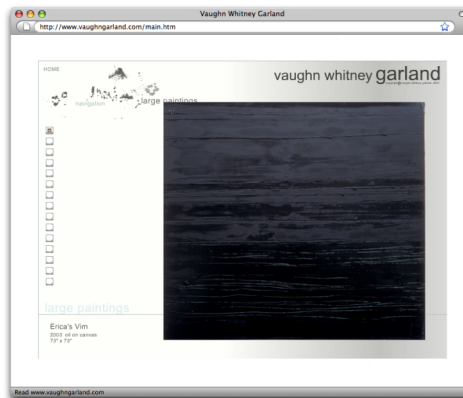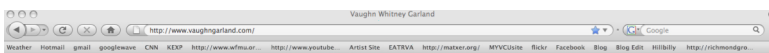An Interactive Film in HTML5
http://www.thewildernessdowntown.com/
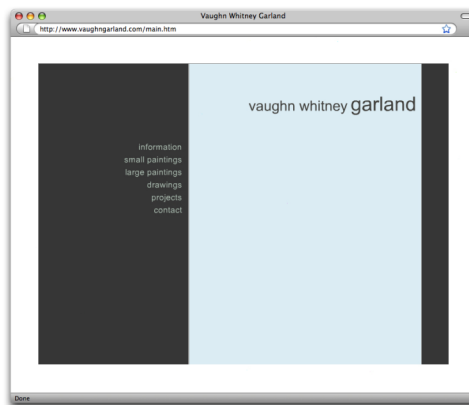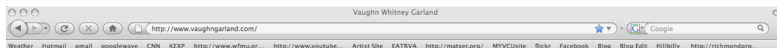
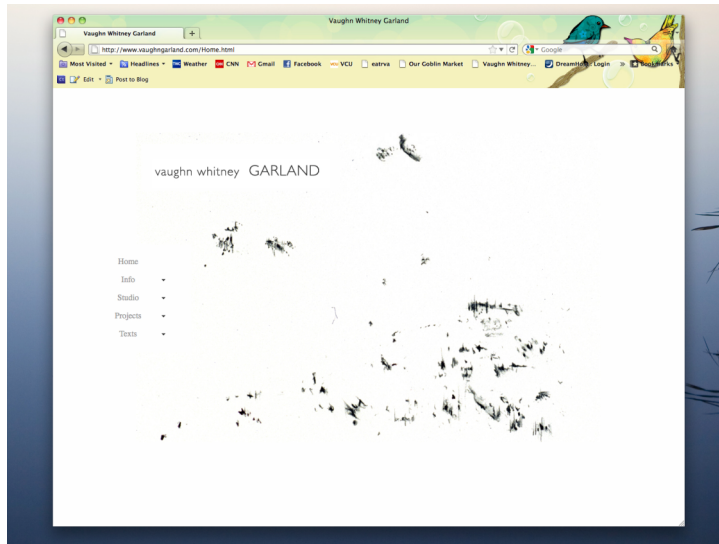Vaughn Garland
www.VaughnGarland.com
Main Artist Page in Flash
2008

Vaughn Garland
www.VaughnGarland.com
Main Artist Page in Flash
2008

Vaughn Garland
www.VaughnGarland.com
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2008

Vaughn Garland
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2011

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