New Media Theory and Practice: Final Project Reflection
Cheri Lemieux Spiegel

The proposal and outline of this project are ambitious. They discuss the way in which I will build a portfolio for myself that presents myself and my research agenda. While I allowed myself to propose the greater project as a means of establishing the rhetorical situation for the site, the product I have for my New Media Theory and Practice class is a prototype of just one piece of that portfolio. What I decided to do, in the interest of time and scope of the class, was to select the most challenging part of what I planned to do and push through trying to accomplish that piece.

Background
The project at large will consist of me creating a website splash page that uses CSS to animate components of the page upon mouseover. It will showcase a wall of a building and have items on the wall that resemble guerrilla texts--graffiti, band flyer, wheat paste, etc. The site will serve as a launch pad into sub pages that explore my teaching, my research, my CV, my twitter feed, and my blog. I plan to design theme templates for these latter two elements so that their appearance will be consistent with the design of the other elements. The bottom of the wall, however, will have what appear to be discarded spray cans. I want to create an environment wherein, when the user clicks upon the cans, the wall transforms to be devoid of the aforementioned guerrilla texts and is blank instead. This blank wall would be one that users, in the spirit of the Do-it-yourself ethic could engage with and inscribe.

Project Focus
I opted to focus on developing this final element, the interactive wall space during the space of my course project because it asked me to use programming elements that were furthest from my comfort zone. I originally planned to do this piece using Adobe Flash, but elected not to since it is likely a dying cause. So I opted instead for HTML5 and Javascript, with a touch of CSS for page formatting. This portion of the project required the most learning, while the other elements of this project employ skill sets that I am already mostly comfortable with (Photoshop, basic HTML and CSS). I feel that those portions of the project will be time consuming, but do not reflect new skill development necessarily, which is what I wanted to showcase for this New Media project.

Theoretical Underpinnings
What's most fun about this project is that it really is an opportunity for me to bring to life some of the theory from this class and put it into practice. While the product thus far doesn't necessarily capture the theories that were motivating me with project, the overall rhetorical situation that I'm consider does. Throughout this term I had three terms that captured my interest most, which I kept coming back to as I thought through material for class: interactivity, archive and persistence.

Interactivity. I often feel that portfolio spaces seem like echo chambers in the way that they

shout information into the digital ether without inviting response. In other words, they do not encourage specific forms of interactivity. I want to explore ways in which I can create a portfolio space that encourages and directs feedback and invites discussion. If individuals are brought to my site as a result of searching for my name on Google, for example, I want to know them. I don't want them to merely lurk on my site, I want them to be able to have opportunities to engage with me, to start a conversation. I want to explore what it would look like if a portfolio designer created a space that was less Narcissus narcosis, and more invitation to discussion. I am still not certain what this will look like and certainly will have to account for spammers, trolls and the like, but I think this is a worthy concept to explore. It's a concept I would like to use as a guiding light for my greater portfolio.

Archive. In a similar vein, in the long term, I like the idea of people being able to engage with my site in some way and to archive that engagement. Thus, I hoped that the end result of my interactive wall would have a "Share" button that would allow the user to capture the image they create and share it via Twitter. My hope was that this sharing could be set up to automatically carbon copy my Twitter name and use a hashtag. Then, after seeing their posts with a hashtag, the user could then search by way of the hashtag and view other response to my site. In this way, I hoped actualize what Gane and Beer describe as the great potential in Internet-based archives, to "forge a new connection between the archive and popular memory (81). In some ways I see this as the 21st century version of the site visitor counter. However, in this case, each user gets to elect whether they wish to be counted as present and they are given the agency to determine the means through which their visit is remembered.

Persistence. The portfolio over all will serve as a means to create a digital presence reflects Brooke's concept of persistence. He defines persistence as "the practice of retaining particular ideas, keywords, or concepts across multiple texts, be they websites, journal articles, or chapters of the same book" (157). In this case the content that I would like to be persistent is the notion of my identity. I want to create an idea of who I am and develop a means to have it carry across digital spaces to create a cohesive narrative. The goal here is that folks will, after spending time on my professional site come to associate the features of it with me. Then, if they stumble upon my Twitter page later, they might recognize the identity package characteristics and associate that page with a memory of my other site components. This means of presenting myself is an effort to create a cohesive identity in an otherwise increasingly fragmented interface of the Internet.

Project Link
This prototype of this interactive wall space can be reached here.

Languages Used
This project required the use of three programming languages, working together to form the product: HTML5, Javascript and CSS. HTML5 was used for its canvas element. The canvas tag in HTML5 creates a drawing space that is rendered in real time when a user visits a site. The programmer can have it display graphics described by way of coding, have it display

images files, or allow the drawing to be dependant upon the user. Typically this real-time drawing is made possible by way of Javascript. Thus, working with the canvas tag, Javascript makes the actual interactivity possible. This language allowed me to dictate how the display would be altered as a result of clicking/unclicking and moving the mouse and it allowed me to let the user select the type of output (drawing tool) he or she would use. The colored background and position of the image are made possible through CSS.

HTML Proficiency

I feel as though this project demonstrates my core competencies in HTML because the HTML file was hand coded by me with only having to look up the code specifications for a couple of items. Most basically, this file shows my knowledge of the basic format to the HTML document's necessary nested tags (html, head, title, and body). I started this project by creating those because I knew they would be the foundation for the overall document. I then added a placeholder name in the title tag.

```html
1  <!DOCTYPE html>
2
3  <html>
4  <head>
5      <title>Practice Document.</title>
6
7      <link rel="stylesheet" href="test1.css" type="text/css" />
8
9  </head>
10
11 <body bgcolor="D2B48C">
12 <h2>Mark up <br />the wall!</h2>
13 <div id="container">
14     <canvas id="imageView" width="1250" height="500"><p>Your browser does not suppor the canvas element.  Please try again with Firefox or
   Chrome.
15 </p></canvas>
16 </div>
17 <script type="text/javascript"
18         src="test1.js"></script>
19
20 <label>Tool:
21     <select id="dtool">
22     <option value="mark">Marker</option>
23     <option value="brush">Brush</option>
24 </select></label>
25
26     <!--
27     <label>Color:
28     <select id="color">
29         <option value="#FFFFFF">White</option>
30         <option value="#000000">Black</option>
31         <option value="#FF0000">Red</option>
32         <option value="#FFFF00">Yellow</option>
33         <option value="#0000FF">Blue</option>
34     </select></label>
35  -->
36
37
38 </body>
39 </html>
```

Also in the head of the document I created the link to the CSS file. I'll admit that I had to look up the exact formatting of this tag because I couldn't quite remember the details, but knew it would contain href. I linked the page up with an empty CSS file that I knew I would populate later.

Next, I selected a background color. Originally I used red, simply because my very basic understanding of the Hex color wheel pretty much limits me to knowing, off the top of my head the codes for Black, White, Red, Blue, Green and Yellow (#000000, #FFFFFF, #FF0000, #00FF00, #000FF, and #FFFF00). Later I used a page denoting RGB-to-Hex Color Conversion to select a color more flattering to the image I used in the background.

The limited text on the site I've used as a demonstration of my understanding of the Header feature as well as the line break tag. The break tag also demonstrates an understanding of the

means in which tags without closing tags should have the / symbol within to originating tag.

I've placed the canvas tag in a div tag so that I could adapt its appearance from the CSS file, rather than having to do it all in the html. I also formatted the text that will display in Internet Explorer (i.e. the only browser that currently cannot interpret the canvas tag) inside the paragraph tag so that I can, once again, control its appearance from the CSS file, rather than having to alter each paragraph appearance within the document.

I had to investigate the canvas tag as part of my exploration into HTML5 specifically because this tag is unique to the HTML5. I first only entered the canvas id and dimensions, but later came back and put the text for Internet Explorer in once I realized that while there was a work around using the Google created ExplorerCanvas, I knew my working knowledge of Javascript, which is what that tool runs in, was only enough to be dangerous, so I didn't want to yet take to figuring out how to set up the if/then functions needed to tell the individual browser how to read the document. That is, however, something I plan to master in the future.

Lastly, I learned about how to create selection menus in HTML from OrbiterMicro's example page of a multi user drawing space using Javascript/HTML5/Canvas. For the time being the selection tool connected to "Color" is turned into an HTML comment so that it will not display until I figure out how to set up that selection process through the Javascript (more on that soon).

Working through this process helped me come to appreciate both how much I knew about HTML and how resourceful I was in being able to find the snippets of code I needed to execute elements of the document design that I wanted. Since I hadn't played with HTML much in recent years, except to make Blackboard text bend to my will, I was shaking about what my skill level really was in practice in terms of what I could really implement off the top of my head. I found, however, that a lot of it was like riding a bike, the feeling for it came back to me as soon as started playing with it, but I'm a lot slower than I used to be!

CSS Proficiency
As for CSS, my knowledge isn't as expansive, but I do have the know-how to look things up that I need. I only have two bits of code in the CSS file at the moment because I really only needed two things to get where I am.

```
body
{
background-image:url('wall.jpg');
background-repeat: repeat-y;
background-position: center;
}

#container { position: relative; }
        #imageView { border: 0px solid #FFFF00; }
        #imageTemp { position: absolute; top: 1px; left: 1px; }
```

I set the background image of the page to be an image taken by Les Chatfield of a brick wall. I don't plan to continue the use of Les's picture in the final product because I prefer to make use of my in-house photographer husband, but Les's image helped me get a feel for what the wall might look like. Once I linked to the file I directed it to repeat only on the y-axis while also being centered on the screen.

The other directions given in this CSS file are directions I got directly from the page on which I based my Javascript file. The lines specify that a yellow invisible line borders the canvas--no really, that's what I told it to do--and the position of the canvas. Unfortunately, the position portion really failed to do what I wanted it to and I couldn't really figure out why.   I think I need deeper understanding of what the variables imageView and imageTemp are really doing in the Javascript file to help make me work that out better.

Javascript ~~Proficiency~~ N00B

My Javascript file, is, for the most part....not mine. I admit that at the beginning. It is straight up "modified" from ROBO Design.   What I realized is that my understanding of Javascript isn't up there with my understanding of HTML5/CSS. I can't just think about what I want done and look up the snippets of code I need to make it work because Javascript is much more complex than I originally thought. That was a painful realization. Honestly, I started this project with this mentality of "I'm resourceful; I can make any coding language bend to my will." I really didn't learn my lesson with Ruby did I? Nope. Of course not; I love hard lessons.

Well, it was fun starting with my triumphs, but here comes the suffering. The good news is, however, that this part isn't just a tale of defeat. I had what I view as a limited success and I have now the basic understanding of Javascript to be able to understand what knowledge is lacking and what I need to develop further. So here goes:

I started off with OrbiterMicro's Multiuser Drawing Space. I figured I could learn what they did enough and then modify it so it looked not like a box on a page that could be drawn on, but a wall to draw on. The page allows you to download the source, so I did and started playing around. The source code came with three, not one, Javascript file. That was when I first realized that, as usual, Internet Explorer does not play well with the contemporary world. So one of those files was the ExplorerCanvas.

One file was a UnionServer file. What it did was allow the multiuser drawing space to connect up to a server so that multiple people could draw at once. Fancy. The final one was the actual javascript to make the lines drawn reveal themselves on the page before the user in connection to his or her mouse movement and clicking. Simple enough right?

HA! It took me a tremendous amount of time to figure out how to read enough of these files to figure out how these three files were working with the HTML file that was given. I quickly figured out how to link my HTML file to these files to have a space that was an interactive drawing space, but I couldn't understand why it worked. I needed to understand the file better. I figured there must be a more simple example out there, so I looked for one. Then, I found William Malone's "Create a Drawing App with HTML5 Canvas and JavaScript." I should have realized that the snazzy image at the top was the product that this built toward; in other words, the source code for this one, in some ways, is even more complex because it has the pictures in the interface change based upon the tool being selected. Even the background changes to match. Complex. I tried to follow the snippets of code that the author gives with my own files but I just kept getting stuck. I was stuck because I really didn't understand how Javascript was working or what it needed to function. No really--I didn't understand functions at all, which are kind of central to Javascript. So I gave up on Malone's watermelon duck drawing space and decided to take some time off and brush up on my Javascript skills.

I actually went back to our class wiki pages to look for what resources the Javascript team recommended and found myself enrolling in Code Academy. I quickly racked up 103 points by completing an assortment of trainings. I went back and forth between HTML and CSS ones and Javascript to keep my spirits up because the Javascript ones weren't as easy. In fact, I only completed 37% of the "Functions in Javascript" one before I was restless to get back to playing with real code. Part of the problem is that I'm a stubborn, impatient learner. I call it kinesthetic because that's socially acceptable, but really I hate having to read stuff; I just want to know it and do it. Magically.

I went looking for another example. I found one of the Opera Development site. What I liked about this example was that it went step-by-step from the HTML to the final source code and it provided comments by each element that explained what they did. The only trouble, of course, is that the objectives for the project in that demo did not fit my objectives neatly. This drawing spaces was designed to have options like Microsoft Paint where the user could select to draw freehand, straight lines or rectangles. That didn't sit well with what I wanted my final result to do. Drawing rectangles doesn't really fit with the Graffiti spray painting motif. Maybe stencils would, but not just boxes. That's too...square.

Therefore, I needed to figure out how to alter the tools that were available to my user. To do this, I went into the code to figure out what part was defining the specific tools and I deleted the ones I didn't need. Then, I examined the free hand drawing one (which was called "pencil") and figured out how to modify it to specify the width of the line being drawn. I gave it a specified

width and then made a copy of the pencil variable and called it brush instead and gave it a thicker width. To keep with the graffiti tone, I changed the pencil's name to marker. I realized that these tools were connected to the selection tool on the HTML file.

So, I went back to the HTML file where I had selections listed from earlier in the project where I learned how to create drop down selections and identified them with the variable of mark (for marker) and brush so they would correspond with the way that I named them in the Javascript file. Alas! I might not have written the entire Javascript file, but I did make it do my bidding! I was able to consider what would make sense in my rhetorical situation and alter the code accordingly. I felt like this was a real win! What pleased me about this achievement was that I was starting to get that feeling that I have with HTML where I can identify what I want to accomplish and articulate what I need to do that task.

I still have a long way to go. I need to understand the rest of that Javascript file so that I can accomplish the other tasks I have in mind. I want to be able to turn on my color selection tool so that the user can modify the color they use as they spray the canvas. I also want to further modify the display of the "brush" tool so that I can change it "Spray Can" instead of brush, but to do that I need to determine how to make the the output to use a spray effect. To do that, I need to spend some time with this article to learn what exactly they are doing to create this effect.

In addition, I want to create buttons that will allow the user to refresh the page, or clear the canvas easily and one that will allow the user to save their image easily and share them via Twitter (with a cc: writersbloc and a specific hashtag so I will be notified). Of course, I'm still thinking through the repercussions/risks in making this user-generated share feature, so I haven't rushed myself into working out that button yet. Lastly, though I find it slightly 1990s, I really want to tie the tool choice to a mouse cursor that will resemble the tool: marker or spray can.

Most importantly, I want to get to where I can write that Javascript file from scratch like I can an HTML file, but I know that will come in due time. I'm looking forwarding to spending the summer playing with more Javascript. Through this project I've been able to discern the real power that Javascript has to enhance web development. It has helped me to see just a bit of what I can really do and that makes me more excited. I am happy to have a specific project to work toward because that will motivate me to learn. I can't see myself sitting through Javascript workshops or watching videos, because I never went that route for HTML, but I can see myself Googling and trying things out. I know I'll keep failing with this program and banging my head on the wall trying to figure out how to get something done. BUT! I now have a virtual wall to bang on and that rocks!

Works Cited

Brooke, Collin Gifford. *Lingua Fracta: Toward a Rhetoric of New Media.* Cresskill: Hampton
      Press, 2009. Print.
Gane, Nicholas and David Beer. *New Media: The Key Concepts.* Oxford: Berg, 2008. Print.