

Creating An Online Course Teaching Social Media Applications

A Master's Thesis

Presented to

School of Communications and Humanities

In Partial Fulfillment

of the Requirements for the

Master of Science Degree

State University of New York

Institute of Technology

By

Vanessa Sweeney

May 2013

SUNYIT
DEPARTMENT OF COMMUNICATION AND HUMANITIES
CERTIFICATE OF APPROVAL

Approved and recommended for acceptance as a thesis in partial fulfillment of the requirements for the degree of Master of Science in Information Design and Technology

DATE

Kathryn Stam, Ph.D.

Ibrahim Yucel, Ph.D.

ABSTRACT

Due to the shift from Instructor centered learning to student centered learning, careful consideration has to be given to the needs of adult learners in all facets of education. Time restrictions and the learner's current skill level are two areas that need to be addressed in adult learning. To address these issues in a non-credit course on social media applications that I am teaching this summer face to face, I have developed an online learning environment to supplement in classroom instruction.

The online learning environment is able to be accessed by students when it's convenient for them, which helps expand upon the instruction that they receive in the classroom. In addition, learning theories and information design principles are applied to the online learning environment to increase the student's ability to learn, as well focus on web accessibility. The online learning environment has been developed using WordPress; a free and open source web content management system.

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Introduction

Question to be Addressed

How to develop an interactive non-credit or continuing education course on social media applications for adult learners?

I am teaching 3 non-credit courses and a one day workshop for my local community college this summer. Intro/Advanced Social Media is one of those courses. It's up to me to develop the curriculum, the course content, supplemental materials and how the course is going to be taught.

Since this will be my first formal experience teaching adults, I need to address how to develop the curriculum, course content, supplemental materials and how I will teach the course. I've also been contacted by another college with a possible opportunity for them to use the courses that I develop for this summer as part of their continuing/adult education programs. Due to this, I also want to address and take into consideration that other educators may want to use my materials and therefore, I need to create an artifact that will allow them to easily do so.

Areas of Literature to be Used

I plan on using a few different learning theories to help me develop the course and the course content. The first learning theory is Elaboration Theory; next is Cognitive Theory of Multimedia Learning, followed by Spatial Contiguity Principle and Temporal Contiguity Principle. These theories will be part of the basis for why I am developing my courses in the way in which I plan to.

I also want to draw from different theories and principles that have been part of the IDT program. This literature will be less about the learning and more related to my design and information choices and include:

- Information Design
- Web Design & Development
- Using digital narratives in the course content or as supplemental materials
- Social Information Theory
- Ethical & Legal Issues of Information Technology (this will be part of what I am teaching as there are several ethical and legal considerations for social media users to take into account)

Method to Address the Question (The Project)

The Intro/Advanced Social Media non-credit course I will be teaching this summer is a face to face class in a computer lab. I want to develop an artifact project to use in conjunction with my face to face time with my class. The artifact is a website that is set up as a course (with modules, supplemental materials and content I will be covering in class with my students).

The reason I want to create an artifact based project is due to the learning theories that I mentioned for my literature review and also so that other educators can use my material or course structure and apply it to their own non-credit or continuing education offerings.

Elaboration Theory: The idea that content should be structured so that it goes from simple to complex in nature and builds from each step. Reigeluth focuses on the learner-centered paradigm, which coincides with my plans for teaching the course. By providing an online artifact of a website with learning modules, students can access the information outside of the classroom

and choose to learn on their own if they wish. It gives them the opportunity to find their own meaning in the course content. While it won't be a requirement for students to access the course outside of the classroom, providing the artifact allows them to take away what's important to them in the classroom and it will provide a structured environment for them to learn from.

Cognitive Theory of Multimedia Learning: Based on auditory and visual channels of processing information. This theory is based on the thought that a person learns more from the combination of words and visuals than they do from just learning from words alone. However, the theory is specific to spoken words and visuals (multi-media); not written text. I plan on using a lot of images for step-by-step instructions on the course website, but there is also going to be text. The reason why I feel this learning theory still works though is that in the classroom environment, I will be speaking (the audio) as students are using the visuals to help them along, so I feel the cognitive theory of multimedia learning still applies to my course website/artifact.

Spatial Contiguity Principle: Text and images being used in close proximity to each other to help students learn. This could also be done in printouts or other material but I think an artifact website is better because people lose papers and with the artifact, it's something they can return to time and time again to refresh what they learned.

Temporal Contiguity Principle: Images and text being presented at the same time – similar to spatial contiguity principle in the sense that students learn better if the text and images being shown to them are being shown at the same time.

I don't want this course (or the other courses I will be teaching) to be instructor centered – I want it to be student centered and by using the learning theories above and combining them with the artifact/course website, my students will get hands on and interactive experiences in

ways that will be meaningful to them. These are adult learners – most of which are taking these courses to help add to their professional skills or business owners who want to learn social media.

By using a website for the course, other educators will also be able to use it in the event someone else wants to teach it or use it. My plan as of right now is to develop a website using WordPress and use course plugins in order to make my modules and integrate my content for the course.

My final step once the project is complete is to receive feedback from a few educators on the course layout, content and if they feel they would use the course to teach non-credit or continuing education courses. I plan on doing this by using anonymous surveys.

The course is split into two sections; intro and advanced and each section will be four weeks long for a total of eight weeks. Students who sign up to take the course have the option to take one or both sections.

Tentatively, the class is scheduled to meet every Wednesday starting in May for two hours each class. Based on this schedule, students who opt to only take one section (intro or advanced) will receive eight hours of instruction, while students who take both sections will receive 16 hours of instruction.

Literature Review

While the course will be taught face to face in a classroom, there has been a shift over recent years to distance education on a global level (Chang and Smith, 2008, p. 407). Chang and Smith (2008) also note that the wide use and benefits of distance education include reducing time constraints and addressing space issues in the classroom (p. 407).

Special considerations need to be given when designing and developing the curriculum for this course as:

- A. The students are adult learners.
- B. The total time allotted for the students to learn the material in the classroom is short.
- C. Books are not required for the course; however as the instructor, I need to provide any learning materials that will be used or needed.
- D. As a non-credit course instructor, I will not have traditional office hours for students to ask questions or seek out additional information.
- E. Materials such as handouts can get lost and in classroom presentations can be quickly forgotten about.
- F. As a non-credit course which is short in length, it would be difficult to justify requiring that students purchase books or other materials since the overall cost of the course itself is lower than most learning materials would cost.

Rather than provide handouts that can get lost or give presentations where students can easily forget the information, my goal is to structure the course and provide the materials through an interactive course website to use in conjunction with in classroom instruction. By creating an online interactive website for the course, the students will be able to:

- A. Access the course anytime they want to (which addresses the time restrictions on in-classroom instruction).
- B. Be able to access information to refresh what they learned in the classroom (which addresses the problem of possibly losing handouts or forgetting what was said during in-classroom lectures).
- C. Be able to access course materials without an additional charge (aside from what they paid for the course).
- D. Learn at their own pace outside of the classroom (addresses the inefficiencies in teacher centered learning).

Research Objectives & Additional Questions

As the instructor, I will be using the online course as the curriculum and structure for the class in a hybrid format. During classroom instruction, teaching will be done in a computer lab where students can access the website and follow along in an organized manner. The website will be used as a teaching tool and also as a learning tool.

To create an interactive course website for my non-credit social media course, first I need to address a few questions. Questions that I will be addressing include:

- A. What are the current thoughts on how people learn?
- B. What learning theories can be utilized and integrated into the course website that I am creating so that the students are able to adequately gain knowledge from the materials?
- C. Is student centered learning a better way to teach than teacher centered learning? If so, what are the benefits of student centered learning as opposed to teacher centered learning?

D. What is the current thinking on what should be included in a social media course or what aspects of social media should be taught?

E. How should the website be designed? (Information design, accessibility, layout)

To address these questions, my literary research focuses on four sections: Learning theories, teaching methods, hybrid courses social media theories and information design considerations.

Elaboration Theory

According to Ljubojevic, et al, (2005), “In order to design computer-based agents that adaptively support a learning session, the following key question must be addressed: How to describe the resource use inside the tutorial so that the description drives the adaptive use of the resource at run time (when learners engage in problem-solving activity)?” (p. 105). To provide an answer to this question, the authors expand on using Elaboration Theory in Information Design to assist learners with problem solving activities.

Ljubojevic et al (2005) convey that Elaboration Theory provides assistance with the process of breaking down the overall task into sub-tasks (p. 106). Based on the Simplifying Conditions Method, learners start with the task that is the most simple and then make their way through a sequence of other tasks starting with what’s simple and then moving up in complexity.

As an instructor going into this class, I will not know or be able to assume what skill level each adult learner will be at regarding social media. Ljubojevic, et al focus on how to design a computer based agent to provide learning support, which is a goal that I share and wish to provide to my non-credit social media class. My online learning environment that students can use in conjunction with face to face class time will have separate modules that start with the easiest tasks first and ending with the most complex task.

In my quest to build my online course, I also need to explore the advantages and disadvantages of elaboration theory. While it's not the only learning theory I will be incorporating into my project, it's the basis of my application's structure (learning modules). According to Leung & Li (2007), elaboration theory is easy to implement in learning systems that are hyper-text based and in addition, elaboration theory is good for analyzing instructional content (p. 331).

No system is perfect however and elaboration theory does not come without disadvantages which should be taken into consideration. A few disadvantages include limited design flexibility and that it does not take any prior learning knowledge into account (Leung & Li, 2007, p. 331). Concerning prior learning knowledge, the disadvantage is not limited to elaboration theory or any one learning environment. It can naturally be assumed that some students will be more advanced in knowledge of social media than the information that is contained in the lower level learning modules of my course. However, since my course is a hybrid between classroom instruction and online learning support, I will have the opportunity of starting in more complex modules of the online environment if it's found that the majority of the students are at a higher skill level.

Cognitive Theory of Multi-Media Learning, Spatial Contiguity & Temporal Contiguity

To design an online learning support application for my social media class, another consideration to take into account is how my students will retain the information that is presented to them in the online learning modules. In order for learning to take place, students will need to be able to remember the information which is presented to them. An online learning support application provides the instructor the ability to integrate text and images in the same web space.

Mayer developed his multimedia theory to specifically address learning that takes place in multimedia environments (Reed, 2006, p. 91). Reed (2006) notes that Mayer's theory is based on research he performed with his own students and this research resulted in 7 principles that apply to multimedia learning:

1. Students learn better from a combination of words and pictures rather than just using words by themselves.
2. Students are better able to learn when words and images are close together instead of being far apart (spatial contiguity theory).
3. Students are better able to learn from words and images that are used at the same time (temporal contiguity).
4. Students are better able to learn when no extraneous words are used.
5. Students are better able to learn from narration and animation on the screen than they are from text used with animation.
6. Students are better able to learn from animation and narration on the screen than they are able to learn from animation and narration when also combined with text on the screen.
7. Low level learners benefit more from design effects than high level learners.

The main points of Mayer's theory that will apply to my online learning environment are spatial contiguity theory and how students learn better when words are used in conjunction with images. A few different areas where I can consider using spatial contiguity theory and using words and images together is by using screenshots of social media applications and placing instructional text within close proximity to the images.

Teaching Methods (Student Centered vs. Teacher Centered)

Technology is available to use as a learning tool in environments where students only attend class online; but also for situations where students receive traditional classroom instruction, combined with online learning support. One of the questions that must be addressed is when it's appropriate to use online learning applications to support classroom instruction. To expand on this issue further, it's also necessary to address when technology should be used to assist students in learning. Technology should not just be used by an instructor to show off or to provide a "wow factor" (Murphy, 2013, p. 6).

My goal is to focus on the students and create an online learning environment which will assist them with their learning needs and to give them access to materials whenever they have time to access them outside of the classroom. With that said, my eagerness to show off technology could easily overshadow the needs of the students. According to Murphy (2013), "Technocentric Instruction is teaching with the focus on technology rather than the learners who are using it" (p. 6). It's for this reason that I will not fully integrate all 7 of Mayer's cognitive multimedia theory; it doesn't need to look pretty for technology and the information to do its job.

Murphy (2013) reminds that it's important to start with the learning goals and then go back – it's not advised to start with cool technology and base learning objectives around them (p. 7). According to Murphy (2013), Harris & Hofer suggest choosing learning goals first, followed by deciding on the narrative and then finally to select the right activities to use in sequence (p. 7). The argument of providing a good sequence is valid to my project as sequencing is the central focus of elaboration theory.

There are cautions with student centered learning, such as letting technology steal the show, but student centered learning also has its benefits. Hains and Smith (2012) relate 5

objectives set forth by Cantor (1997) which takes into account academic and societal needs when it comes to higher learning. These 5 objectives include: “(a) increase understanding of learning theories and cognitive development; (b) meet the needs of nontraditional learners with diverse learning modalities; (c) meet industry demands by creating team players; (d) interface more closely with business and community; and (e) critique current methods of cognitive evaluation.”

In reference to learning theories and cognitive development, I’ve increased my understanding with elaboration theory, spatial contiguity theory and cognitive multimedia theory. These theories and principles are essential to understand when designing an online learning application which focuses on student centered learning. By providing an online learning environment that students can access anytime and anywhere they have an Internet connection, I’m also helping to meet diversity in learning modalities.

In a study using physical theory students, Bayliss and Warden (2011) found that student performance was better in a student centered hybrid model than it was when compared to traditional lecturing instruction (p. 16). While a physical therapy course is outside of the subject matter of social media, Bayliss and Warden tested student centered and teacher centered (lectures) methods and found improved performance based on the student centered approach.

The Hybrid Format

In 2009, the U.S. Department of Education reported that “hybrid instruction is among the fastest growing enrollment in higher education” (Poirier, 2010, p. 28). The research conducted also showed that learners who enrolled in courses where part or all of their instruction was done online performed better than the same students who took the same courses in traditional classroom settings (Poirier, 2010, p. 28).

In a hybrid course, students are normally required to do more work on their own than in a traditional classroom setting (it is student centered, opposed to teacher centered). While this research backs up my plan of developing an online learning application to go with my traditional classroom instruction, the research was based on students who were required to participate in the hybrid aspect of the course. To address this finding and make the hybrid course set up work for my students, consideration needs to be given to requiring my students to participate in the online version of the course. There is a requirement of participation while students are in the classroom setting; however, there is no requirement for the students to participate in the online course outside of the time they spend in the classroom given that it's a non-credit course without formal grading.

According to McCown (2010), there is a disagreement on what exactly constitutes a blended course, but that Duhaney describes blended learning as “any combined use of electronic learning that supplement but do not replace face-to-face learning” (p. 205). Duhaney’s description of blending learning (hybrid learning) affirms my plan of using the online version of my social media class as a learning tool or supplement. The online course will not replace my student’s face to face learning; but it will supplement their learning by providing information that will not be able to be presented in the classroom due to time restrictions. It will also supplement or address students who learn and retain information better on their own than by receiving instruction in a traditional classroom.

In the hybrid environment, I have to be careful to make sure that I am educating as opposed to training students. According to Jacobson (2000), some universities are so structured, that the instruction results in arid training (p. 73). This consideration also applies to classroom

instruction, but the hybrid set up gives students the opportunity to explore on their own and not only be subjected to the teachings which are confined to the classroom.

Social Media as a Subject Matter

Learning social media goes above and beyond simply learning how to use the applications. With billions of people using social media around the world, the use of these networks result in social implications that stretch further than the personal lives of those who enjoy participating in social networking. Businesses large and small have been using social media to connect with customers, which results in a need for businesses to learn not only effective marketing strategies, but also how to behave online. Even when social media is not used for business marketing purposes, users still have to be careful of what they say and do on social networks as it can impact their work and college lives. Another important aspect to include in social media as a subject matter is online privacy and user security.

To stress why it's important for learners to understand the issues that surround using social media applications, Collier (2012) notes that online disinhibition is the occurrence of acting differently online than a person would act when they are having a conversation with another person in a face to face environment (p. 627). This different online persona can have negative effects on a person as employers or educational institutions have no way of knowing whether how a person acts online is predictive of how the person will behave in their place of employment or in their higher education learning.

To address privacy concerns among social media users and specifically Facebook, the user's perceptions of understanding Facebook privacy is a vital tool for teaching privacy issues on Facebook. According to O'Brien and Torres (2012), users have displayed concern regarding their privacy on Facebook (p. 64). In December of 2009, the social network publicized all of its

user's information, which caused a large backlash from its user base (O'Brien & Torres, 2012, p. 64).

The way in which Facebook presents their privacy policies to users is flawed, but not due to the fault of Facebook. The social networking site provides details on if and how they share user information and they also inform users of how they can protect their information and security. The reason this method of presenting privacy and security policies is flawed because very few users actually read the information – 89% of users to be exact (O'Brien and Torres, 2012, p. 69).

With user privacy and security being two issues that the public is concerned about when using social media, it's important to teach these issues and bring a heightened understanding to them. However, they are two very extensive and time consuming topic matters, which would be difficult to thoroughly address in their entirety during class meeting times. Due to this, understanding social media privacy and security will be supplemented in the online learning modules.

Information Design Considerations

My online course that will supplement my in class instruction needs to be designed in a way that /students can easily navigate and obtain information from. I can use sequencing, elaboration theory and cognitive multimedia theories to address how students will learn and retain information; but the information that they will learn from needs to be accessible and formatted so that the design does not restrict the learning.

One way to address information design considerations in the online course I am developing is to use the ADDIE model. ADDIE stands for: Analysis, design, develop, implement and evaluate (Allen, 2006, p. 430). The model was developed to address workplace training and

instruction according to Allen (2006, p. 431). Using ADDIE is about the process of information design; where to start and where to end.

One of the main components of the ADDIE model according to Allen (2006) is the continuing assessment and improvement of the instruction (p. 432). To adequately adjust to user needs of my online learning application, feedback is going to be obtained. More so, since there are potential opportunities for my design to be used for future non-credit and community based courses, feedback will be beneficial so that my online learning environment can continue to meet user needs.

Information design is essential to effective learning. According to Jacobson (2000), “Learning is not something we can observe directly. It must be inferred from what people do under given conditions. Thus, the impact of information design on learning can only be evaluated in terms of what persons are supposed to do when they receive a given message” (p. 153). This is why information design is not enough to motivate students to learn, but positive reinforcers can be used to assist in the learning environment. Jacobson (2000) adds that intrinsic reinforcers can include letting a person explore open environments, having the learners meet challenges and including conversations (p. 160).

One of the downfalls of creating an online learning environment is that there is only so much space. While it would be possible to create endless web pages and learning modules for my students, I fear too much information would be overwhelming and contradict the goal of using an online environment for learning support. According to Katz (2012), one way to address this issue is by layering or using transparencies (p. 29). Data can be placed in confined spaces by overlapping the information. While this method would not work for text, it would work for graphs, charts or other visual data.

Another issue that I will be faced with is letting students know what sections are important to pay attention to and once again, I can use visuals to accomplish this goal. By using images that contain emotional power (Katz, 2012, p. 35).

Literature Conclusion

Designing an online learning support environment includes a variety of considerations that need to be taken into account as the curriculum developer, course designer, web designer, web developer and instructor. The literature that I've included covers each one of these aspects by researching different learning theories, teaching methods, course structures, the subject matter being taught and principles of information design.

A notable gap that I encountered while performing my research was a lack of academic research regarding hybrid courses for non-credit classes. Even so, there was enough information regarding higher education hybrid courses to assist me in designing and developing my social media online course.

Project Design, Implementation & Evaluation

Design

One of my main goals for designing my interactive website on social media applications is to make the website accessible to students. Due to this, all information on the website is going to be public facing – the students will not have to log into the system in order to gain access to the course material. Assignments (if any), will be done in classroom, which eliminates the need for students to submit their work online or outside of classroom time. However, students will be

able to interact with each other and with me through an online commenting system and they will need to register as a user in order to comment or interact on the website.

The design is going to be simple, with the home page linking to course content through a drop down navigation menu, via image slides and through a sidebar on the right side of the screen. The navigation menu will include the following items:

1. Home
2. Course Modules (from the course modules navigation item, the user will select the module they want to access via a drop down menu).
3. Additional Resources (drop down menu with links to internal pages and external pages that can help the student understand additional social media topics that there will not be time to cover in the face to face class).
4. Info/Instructions (showing students how to use the website; where to find what they need, etc.).
5. About (a short blurb regarding what the website is about).
6. Contact (A contact form that students can use to contact me during out of class hours or for others viewing the website to contact me).

Since the website is to help students learn about social media, the website will also include a Twitter feed in the sidebar which will scroll Tweets from myself and from other students in the class using the hashtag “#learnsocialmedia”. Once in class instruction begins, each student will be required to set up a Twitter account and use the hashtag at least once as an in class assignment so that they can learn how Twitter can integrate with websites.

Implementation

Implementation of the website to help teach social media to non-credit students begins with installing WordPress on the domain: <http://www.courseconductor.com>. The domain was previously purchased with my thesis project in mind, but also to be used as a main hub in the event that I choose to develop more online courses in the future. I am using self-hosted WordPress, which I have installed on my domain via my hosting plan through www.dreamhost.com. My host also automatically creates a MySQL database for my WordPress installation.

For the design implementation, I've chosen to use StudioPress's Genesis Framework for WordPress and a child theme by StudioPress called "Metro". Genesis handles the functionality of the theme, while Metro handles the design. I have previously used Genesis on other projects that were combined with other child themes and I purchased Metro for my social media learning website for the following reasons:

- It's responsive: Metro uses media queries that have already been built into the theme to automatically resize and reconfigure the website's layout based on the user's screen size. This means that no matter what device a person is using or what screen resolution is native to their device, the content will automatically format to their screen making it easier to view and more accessible.
- The basic design has been completed through the Metro child theme, which allows me the opportunity to place more emphasis on the learning material and less emphasis making the website functional or pretty. I will be editing the CSS of the child theme to make the design better fit my needs but edits will need to be minimal.

- Drop down menu functionality is already included, which assists me creating the navigation for the website.
- By using Genesis and Metro, I get full support from StudioPress, therefore if I run into any design or functionality issues with the framework or child theme, I can receive assistance from the developers.
- Per StudioPress's terms and conditions, I have the ability to modify their themes and sell what I've created, making it possible for others to purchase my course to use for their non-credit courses (<http://www.studiopress.com/faqs#clients>).

At the current time, I have already set up WordPress on my host, installed Genesis, installed Metro as the child theme and have started formatting the navigation.

Evaluation

The course will be evaluated two ways: by Jamestown Community College and through survey questions that I will provide to the class once the course has been completed.

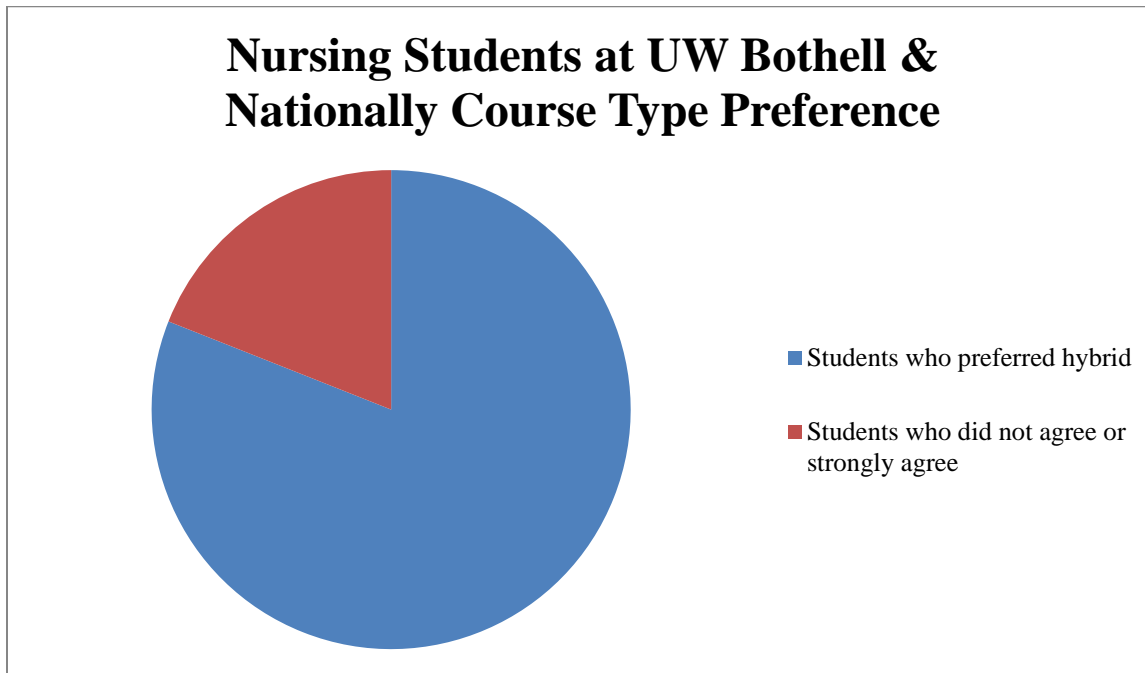
1. Was the website accessible on your device? (Computer, tablet, smartphone, etc.)
2. What device did you use to access the website?
3. As a student of the social media non-credit course, did the online learning environment make the subject matter easier to learn, harder to learn or did it not make a difference?
4. Were the learning modules presented in a way that were easy to follow?
5. Did you choose to use the commenting system or interact with the instructor or other students on the website?
6. Did the website comprehensively cover social media applications, including how to create accounts and how to use the applications?
7. Did you take this course for personal or business use?

8. Have you ever taken a hybrid course before (part classroom instruction, part online instruction)?
9. Would you recommend this course to friends who are interested in learning about social media?

Anticipated Findings

Based on integrating learning theories, the ADDIE model and good information design principles into my project, I anticipate that my online learning environment that's being built to help students learn about social media applications will be easy to access, easy to use and it will provide the necessary information that students are interested in learning. The following charts and tables help convey my choice of creating a hybrid course, using my chosen learning theories/instructional design models and using WordPress as the platform to build my website:

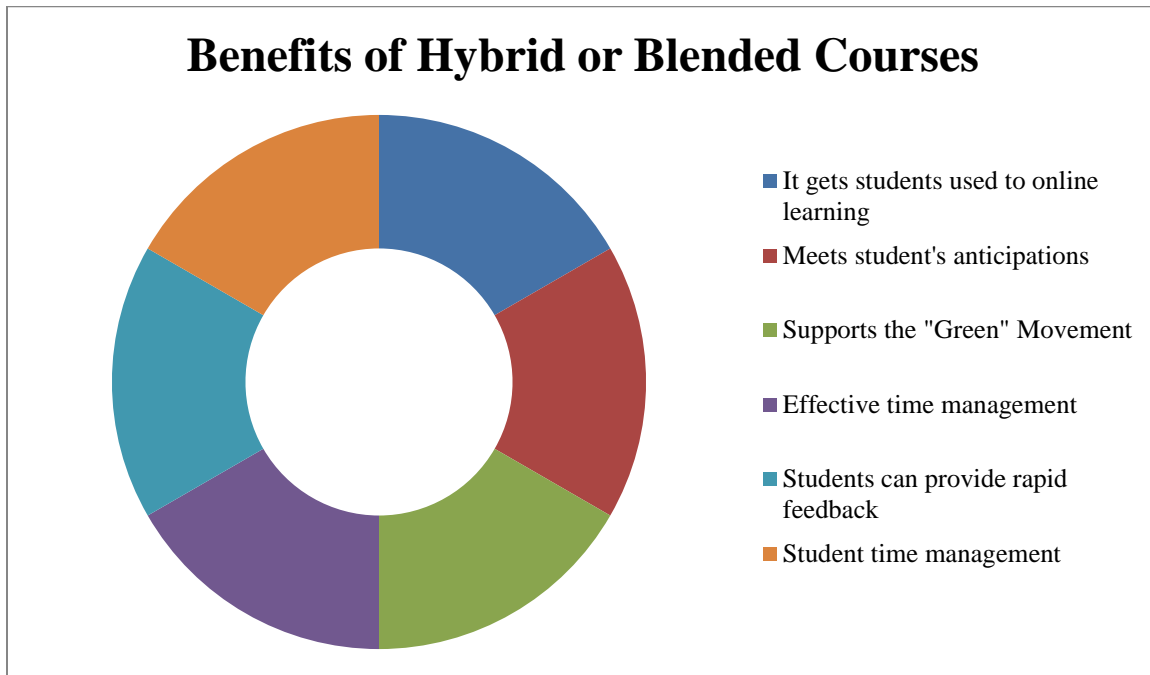
Figure 1: Hybrid Courses



(Fig. 1: Nursing students at UW Bothell and nationally agreed or strong agreed that they would be interested in taking another online hybrid course. <http://www.bothell.washington.edu/learningtech/elearning/hybrid-learning/about-hybrid/benefits-hybrid>)

According to the U.S. Department of Education (2010), based on a study conducted from 1996 through 2008, blended instruction provided greater benefits over face to face only instruction. Benefits of hybrid or blended course formats include:

Figure 2: Benefits of Hybrid Courses



(Fig. 2: Benefits of hybrid/blended courses based on information Nancy Webb, 2011.

<http://blog.blackboard.com/developers/community/six-benefits-of-hybrid-courses/>)

Table 1: Addie

ADDIE Model

ADDIE Model				
Analysis	Who is the audience?	What is the purpose?	What is being taught?	What are the coverage restraints?
Design & Development	What are the learning objectives?	What resources will be used?	How will content be structured?	How will learning be assessed?
Implementation	Creating the learning environment	Delivery of designed & developed materials		
Evaluation	Continued through entire process of analysis	Evaluation findings are used to improve learning	Help learners decide their future goals	

(Table 3 Source: Whitmyer, C. (1999) Instructional Design for Online Learning. Accessed from:

http://www.futureu.com/shared_resources/instructional_design_for_online_learning.pdf)

The ADDIE Model is a solid framework for my anticipated findings.

Analysis

- Adult learners who have signed up to take a non-credit social media course
- To provide a supplemental online learning environment that students can access in the classroom and at their own convenience.

- In classroom instruction provides time constraints and therefore the hybrid model using an online learning environment will help free up those time constraints.

Design & Development

- The learning objective is to show people how to use social media applications.
- The learning objective focuses on using technology and the website will integrate social media technology.
- The structure will follow the learning theory of starting with the most simple task and working up to the most difficult tasks.
- Assessment will be done through student to student feedback and instructor to student feedback on both the classroom and the online learning environment.

Implementation

- Creating the online learning environment using WordPress, Genesis and Metro.
- Writing learning materials based on current research and information pertaining to social media use.

Evaluation

- Evaluation of the learning environment will be ongoing based on the feedback from Jamestown Community College and from the students who are taking the course. I anticipate that the evaluation stage will not end for as long as people are still using the website or learning about social media from the website.

Table 2: WordPress Statistics

Table 2: WordPress statistics – why it's a valuable system to use for my course

Percentage of websites using WordPress	14.7%
that are in Alexa's top 100 sites	
Number of times version 3.0 downloaded	65 million
Twitter Integration	June 13, 2012
Cost	Free (with the exception of premium themes)
Share of content management systems	53.8% (as of 2012)
Languages	Translated to 73 (as of 2012)
Plugins	Over 19,000 (as of 2012)
Number of people making a living with WordPress	Over 20,000 (as of 2012)
Ability to integrate private/student only access	Present with membership or course plugins

(Table 4 Data obtained from: <http://en.wikipedia.org/wiki/WordPress> & <http://wpmu.org/amazing-wordpress-statistics/>)

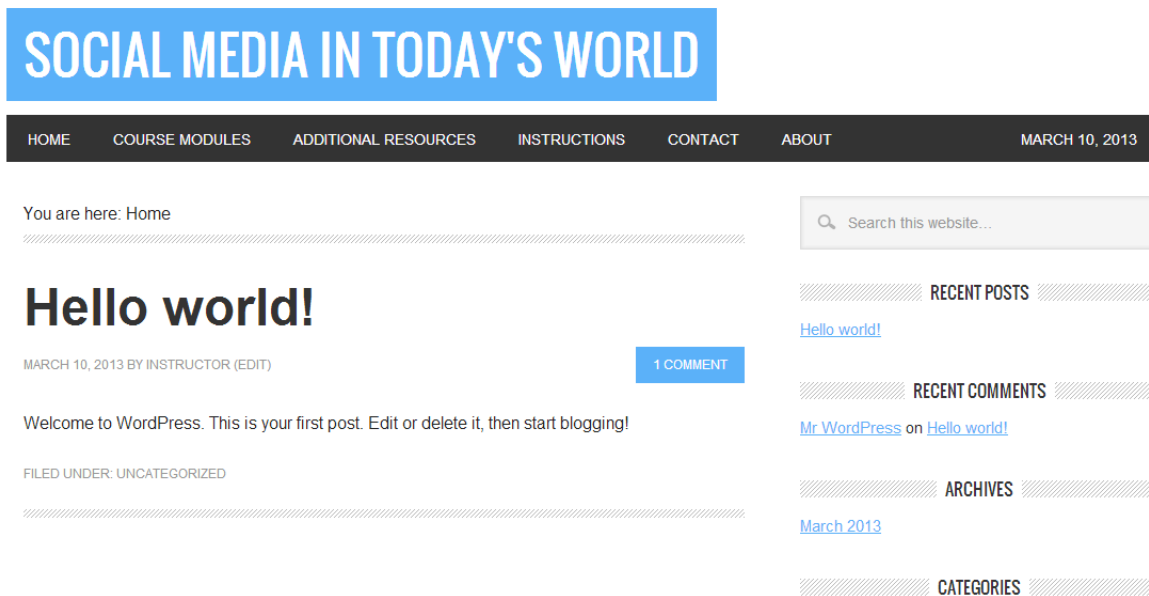
Anticipated Findings Summary

- The hybrid course structure will be effective in helping students learn and relieve time constraints on in classroom instruction.
- The benefits of hybrid courses will justify the extra effort in creating the online learning environment when compared to only using in classroom instruction.
- Structuring tasks from easiest first to hardest last will help students effectively learn the material.

- Using technology to teach technology will help students acquire new skills beyond the course material itself.
- The most valuable feedback that I will receive from the project will come directly from the students who will be taking the course.
- Evaluation of the design, structure and learning materials will be ongoing.

Prototype & Presentation Materials

Figure 3: Prototype



(<http://www.courseconductor.com>)

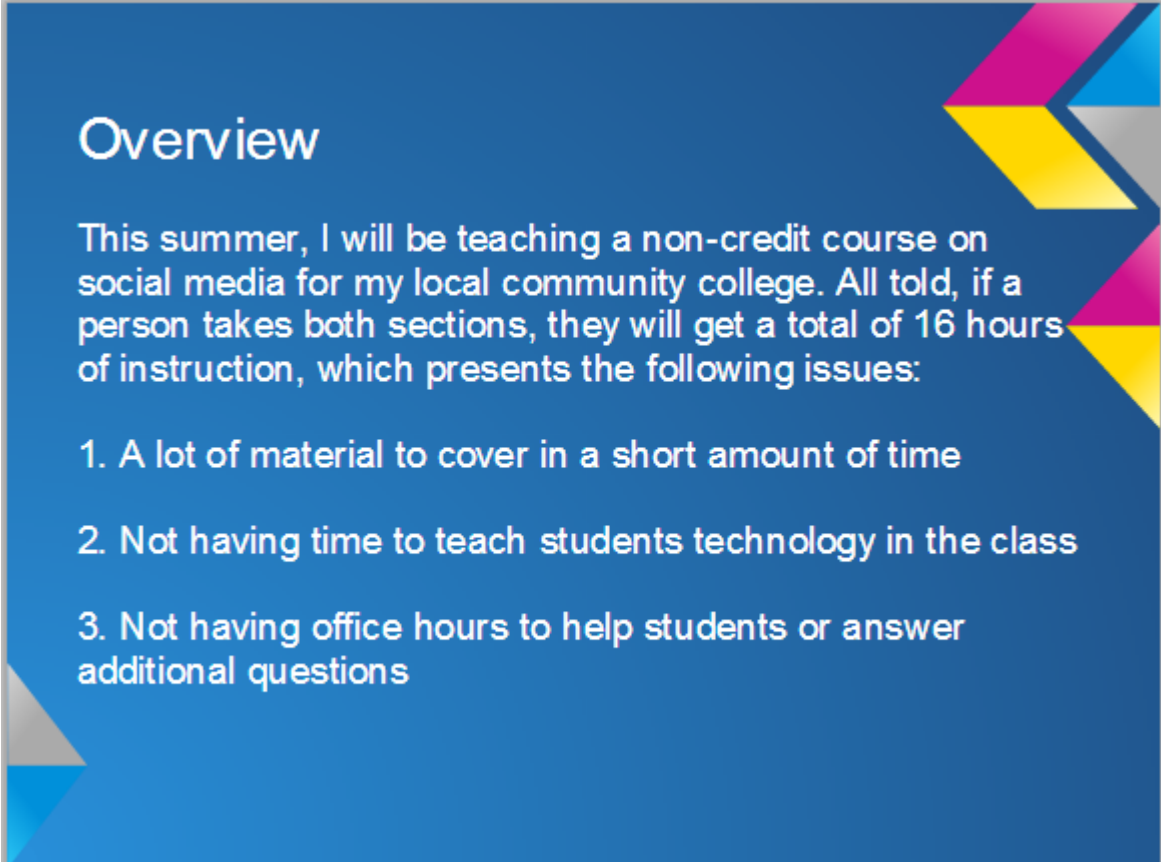
Figure 3 represents the beginning stages of the website as a basic shell. At this stage, the content and course material is not yet added but the basic website structure is in place so that I can begin to add the course material, install additional plugins, integrate Twitter and make minor design adjustments.

Proposal Defense Slides

The full presentation for my proposal defense can be found at:

https://docs.google.com/a/sunyit.edu/presentation/d/1F3S1M0mGvRz9gY2T_CavWgvGnfHQ4cJvFg5ezTu8M-c/edit?usp=sharing

Figure 4: Overview



Overview

This summer, I will be teaching a non-credit course on social media for my local community college. All told, if a person takes both sections, they will get a total of 16 hours of instruction, which presents the following issues:

1. A lot of material to cover in a short amount of time
2. Not having time to teach students technology in the class
3. Not having office hours to help students or answer additional questions

Figure 5: The Solution

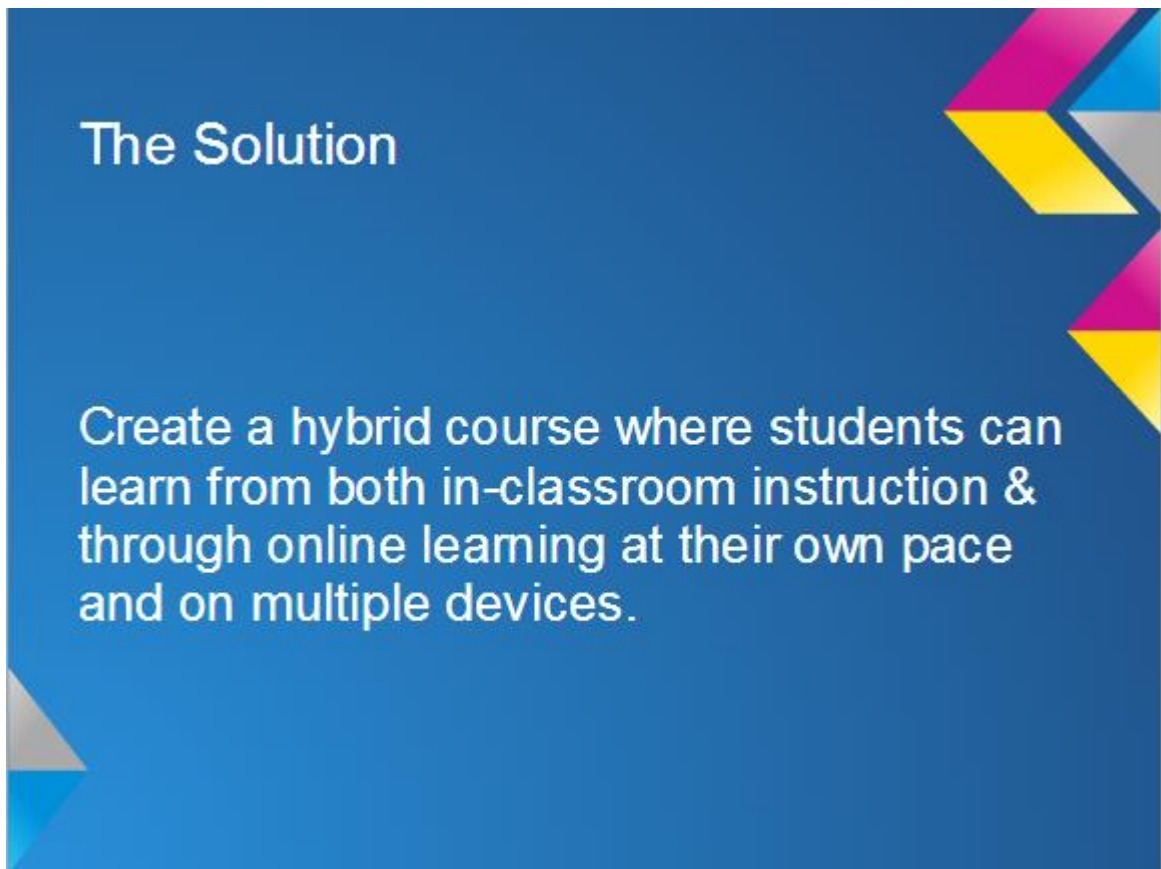


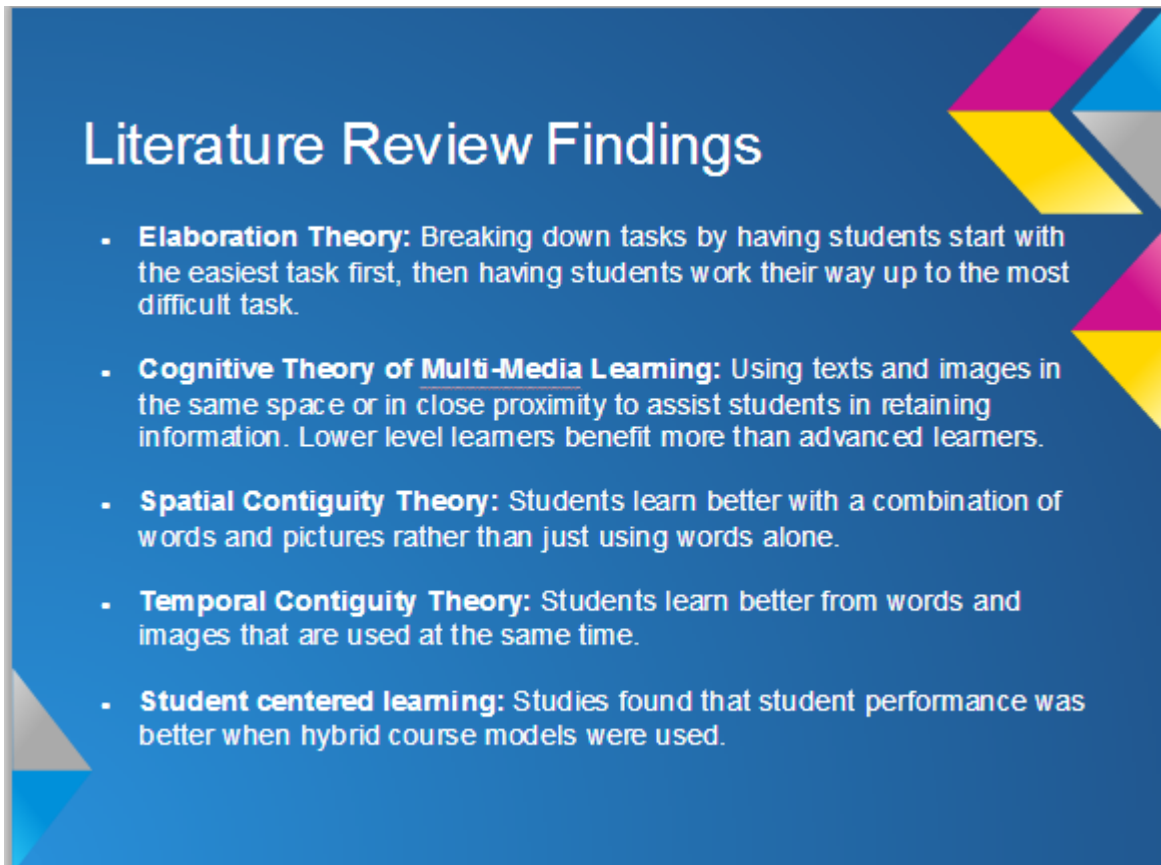
Figure 6: Research Questions



Research Questions

1. How does the website (artifact) meet the needs of student centered learning?
2. How does the website (artifact) incorporate multimedia learning theory, elaboration theory, spatial contiguity theory and temporal contiguity theory?
3. How does the website (artifact) adhere to good information design, accessibility and user experience principles?

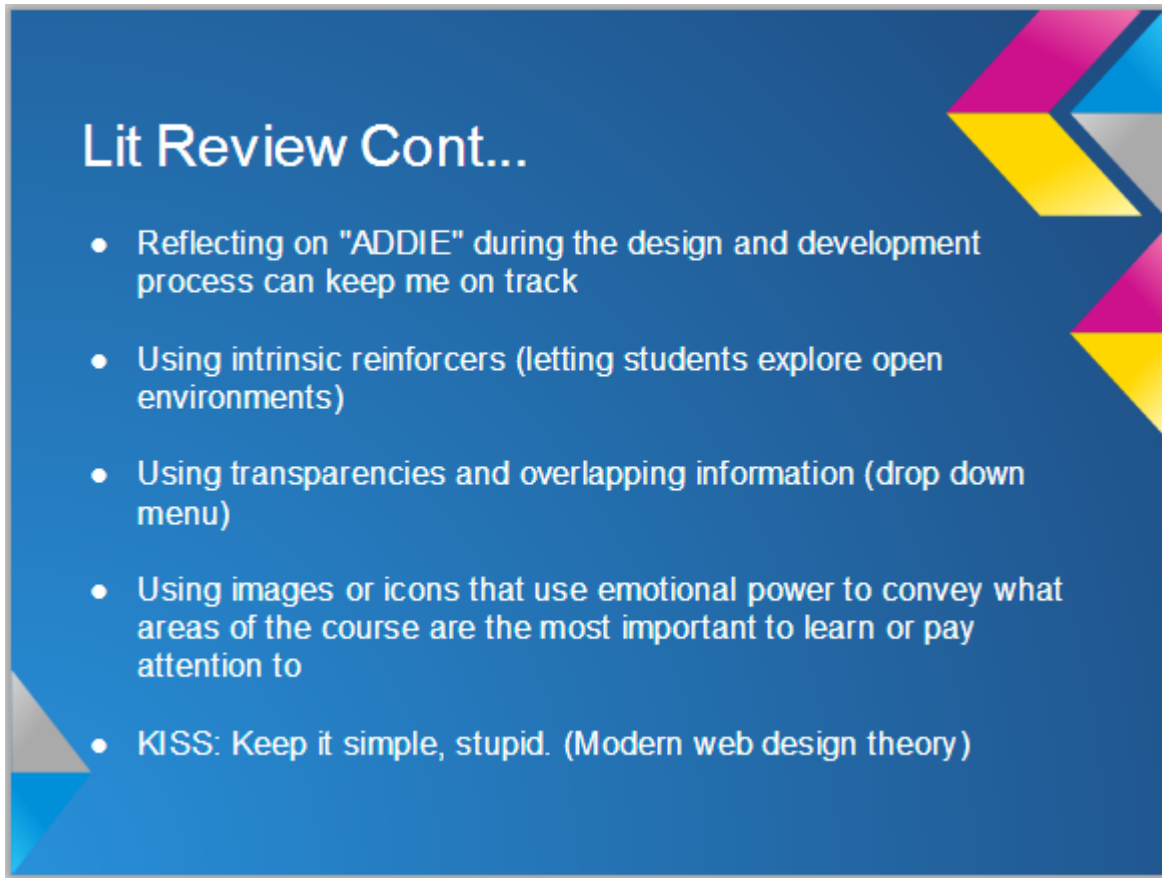
Figure 7: Lit Review Findings



Literature Review Findings

- **Elaboration Theory:** Breaking down tasks by having students start with the easiest task first, then having students work their way up to the most difficult task.
- **Cognitive Theory of Multi-Media Learning:** Using texts and images in the same space or in close proximity to assist students in retaining information. Lower level learners benefit more than advanced learners.
- **Spatial Contiguity Theory:** Students learn better with a combination of words and pictures rather than just using words alone.
- **Temporal Contiguity Theory:** Students learn better from words and images that are used at the same time.
- **Student centered learning:** Studies found that student performance was better when hybrid course models were used.

Figure 8: Lit Review Cont.



Lit Review Cont...

- Reflecting on "ADDIE" during the design and development process can keep me on track
- Using intrinsic reinforcers (letting students explore open environments)
- Using transparencies and overlapping information (drop down menu)
- Using images or icons that use emotional power to convey what areas of the course are the most important to learn or pay attention to
- KISS: Keep it simple, stupid. (Modern web design theory)

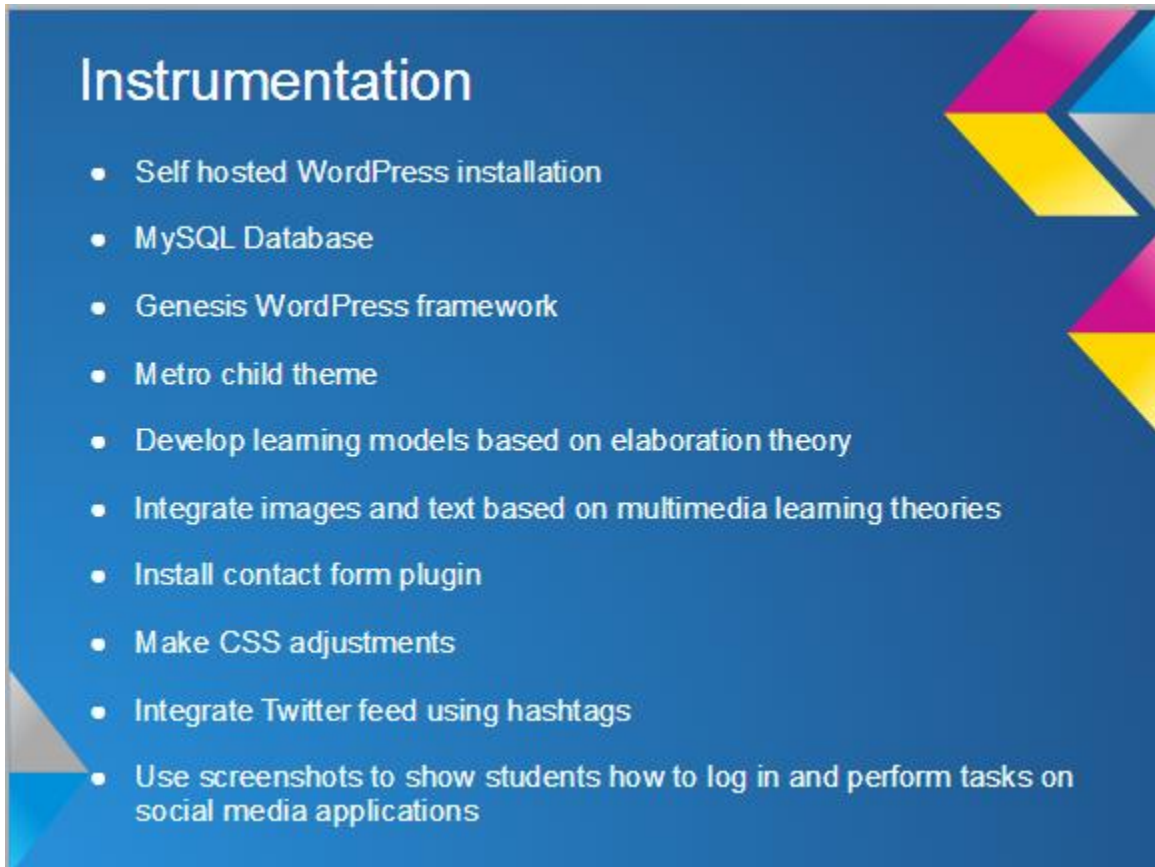
Figure 9: Methodology

Methodology

ADDIE Model				
Analysis	Who is the audience?	What is the purpose?	What is being taught?	What are the coverage restraints?
Design & Development	What are the learning objectives?	What resources will be used?	How will content be structured?	How will learning be assessed?
Implementation	Creating the learning environment	Delivery of designed & developed materials		
Evaluation	Continued through entire process of analysis	Evaluation findings are used to improve learning	Help learners decide their future goals	

(Fig. 3 Source: Whitmyer, C. (1999) Instructional Design for Online Learning. Accessed from: http://www.futureu.com/shared_resources/instructional_design_for_online_learning.pdf)

Figure 10: Instrumentation



Instrumentation

- Self hosted WordPress installation
- MySQL Database
- Genesis WordPress framework
- Metro child theme
- Develop learning models based on elaboration theory
- Integrate images and text based on multimedia learning theories
- Install contact form plugin
- Make CSS adjustments
- Integrate Twitter feed using hashtags
- Use screenshots to show students how to log in and perform tasks on social media applications

Figure 11: Prototype 1

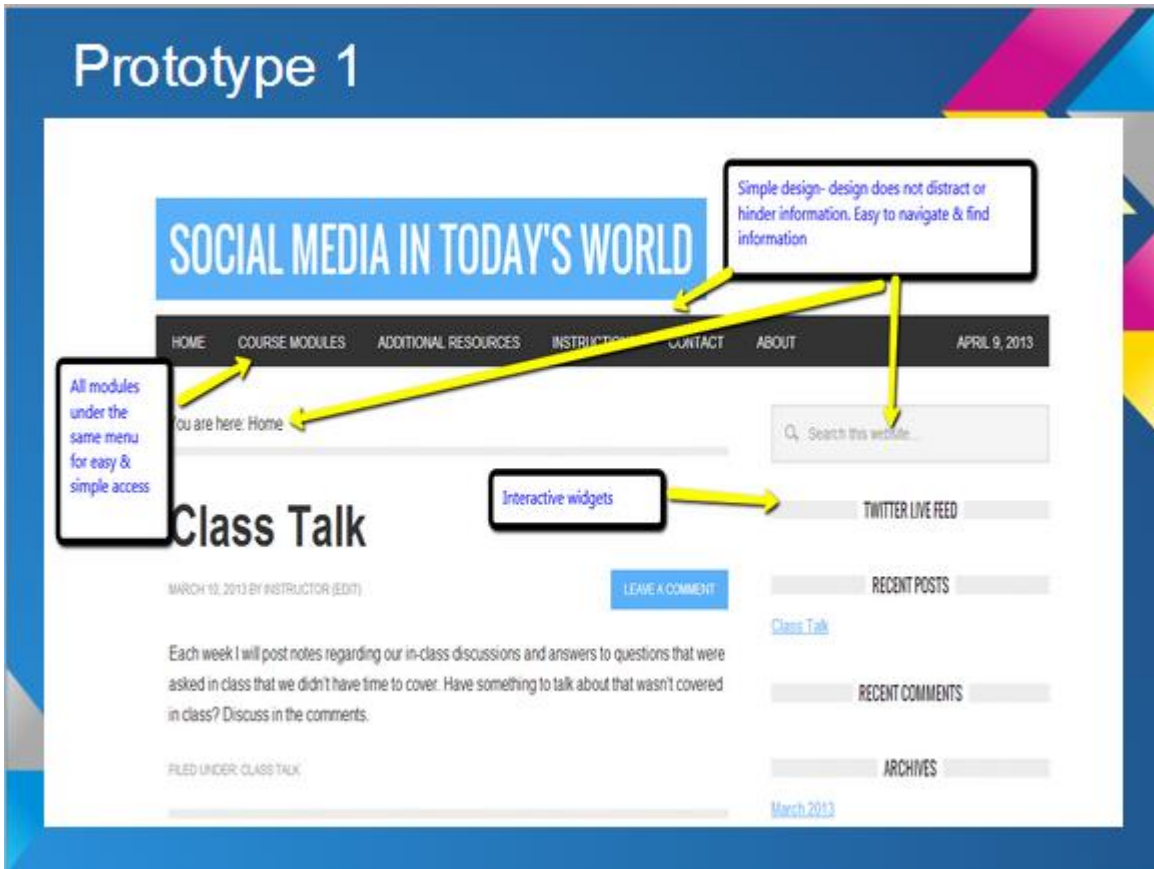


Figure 12: Prototype 2

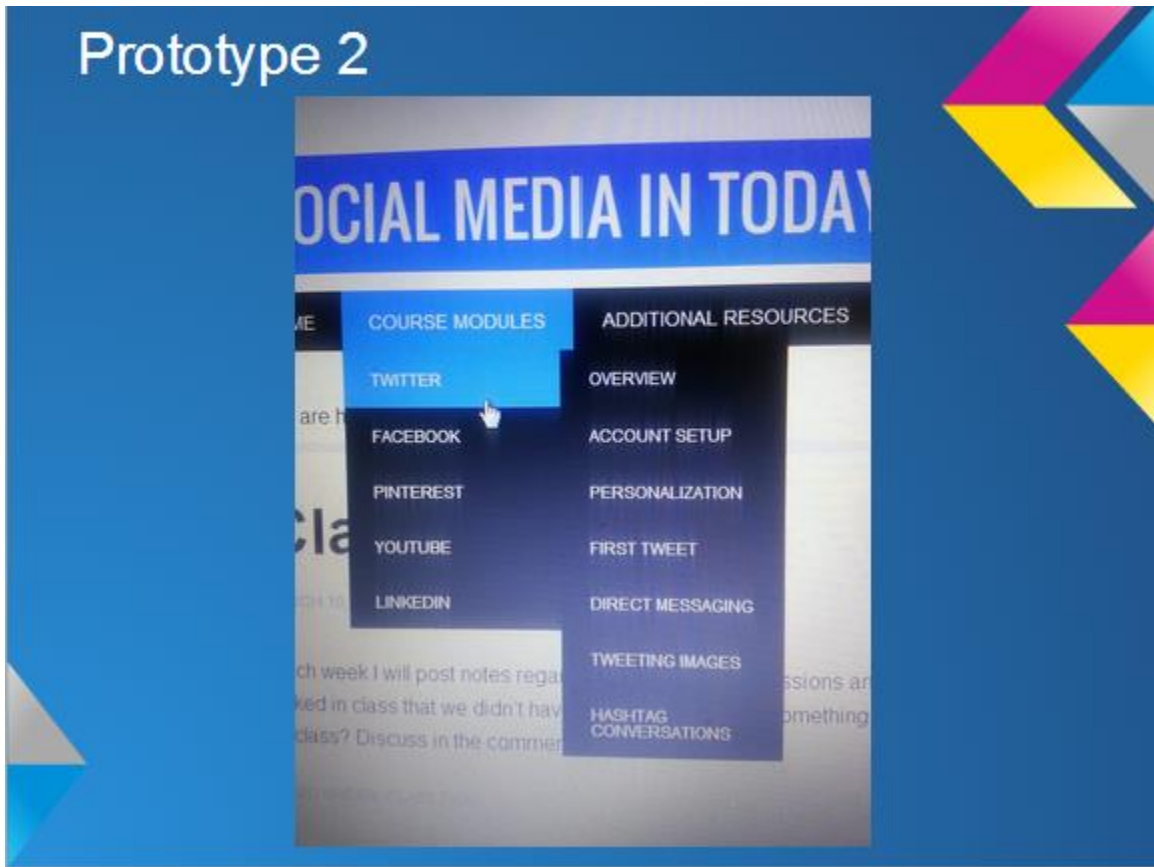


Figure 13: Prototype 3

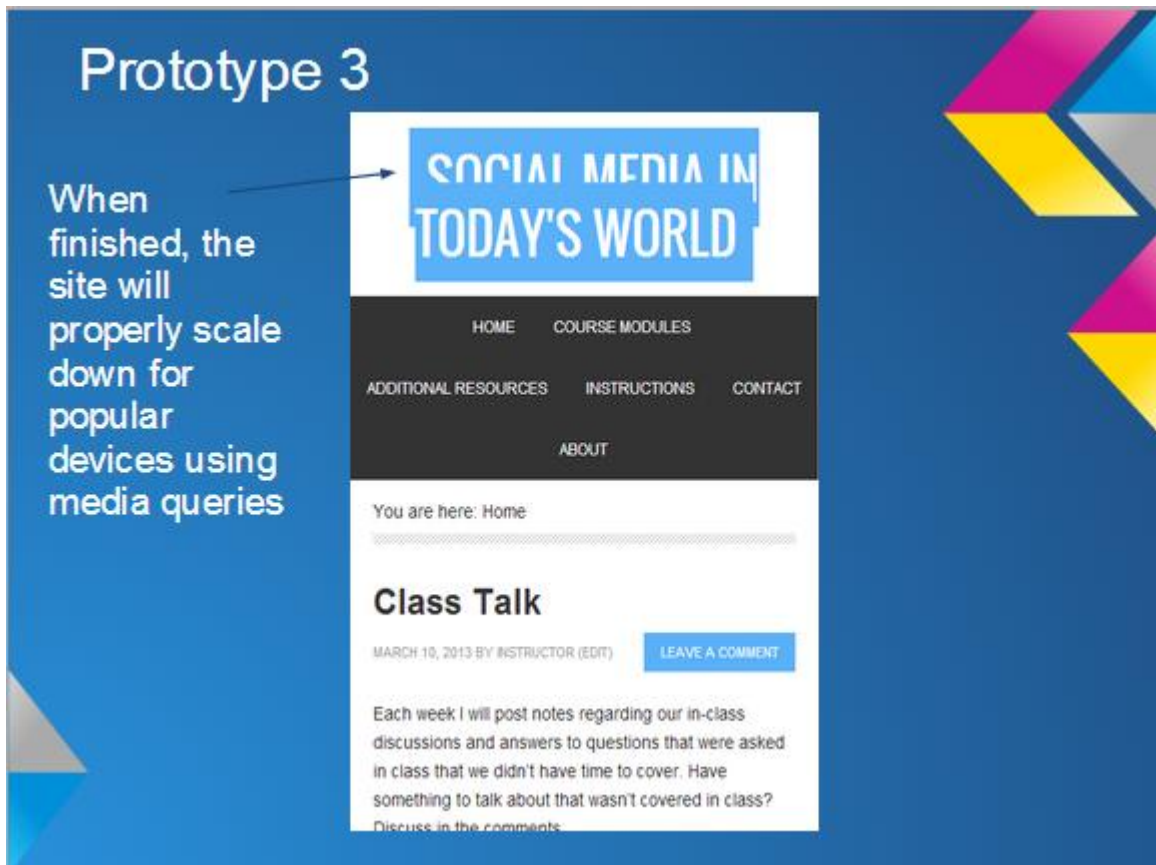
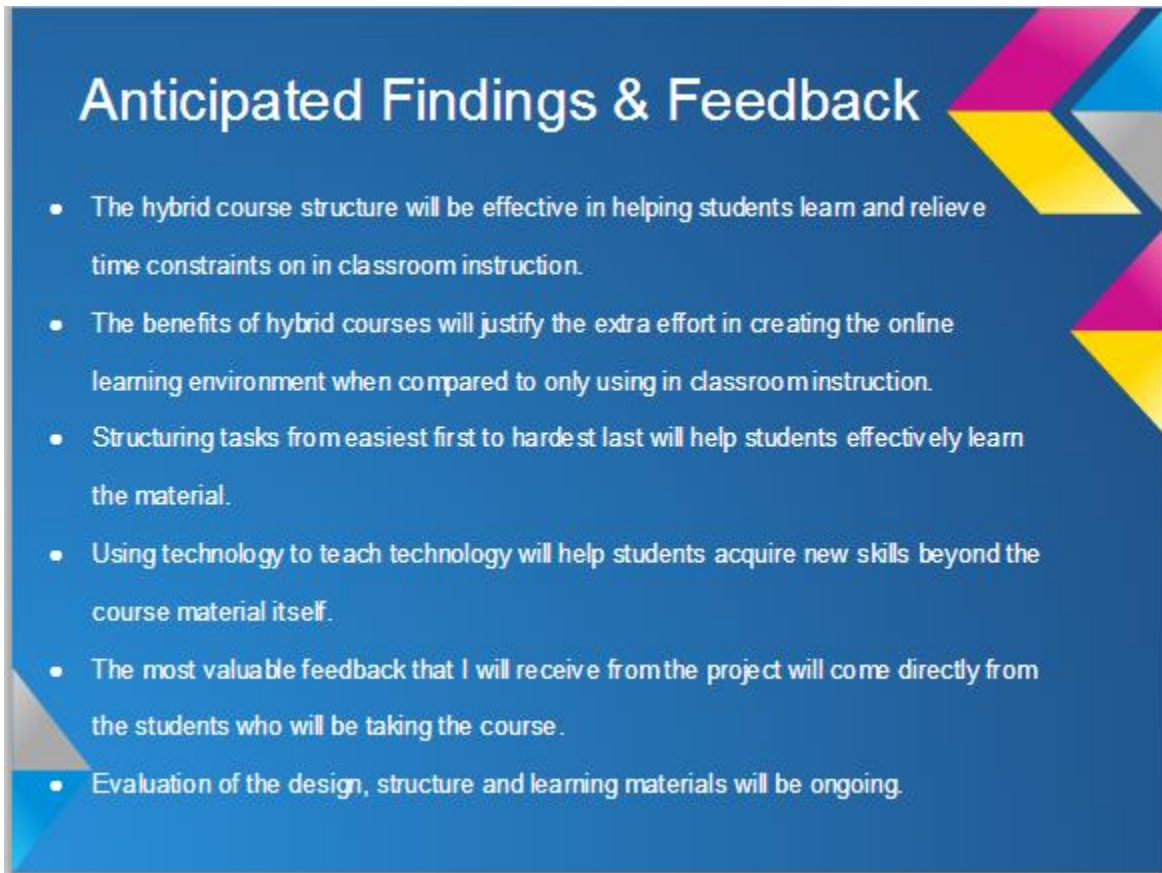


Figure 14: Anticipated Findings & Feedback

A presentation slide with a dark blue background and white text. The title 'Anticipated Findings & Feedback' is at the top left. A decorative graphic of overlapping colorful triangles (pink, blue, yellow, grey) is on the right side. A list of six bullet points is in the center.

Anticipated Findings & Feedback

- The hybrid course structure will be effective in helping students learn and relieve time constraints on in classroom instruction.
- The benefits of hybrid courses will justify the extra effort in creating the online learning environment when compared to only using in classroom instruction.
- Structuring tasks from easiest first to hardest last will help students effectively learn the material.
- Using technology to teach technology will help students acquire new skills beyond the course material itself.
- The most valuable feedback that I will receive from the project will come directly from the students who will be taking the course.
- Evaluation of the design, structure and learning materials will be ongoing.

Implementation of Final Project

While the entire website at www.courseconductor.com is going to be used as a hybrid course for my non-credit social media class this summer, implementing my project focused on one social media section of the course: Twitter. My full Twitter course module can be found at: www.courseconductor.com/twitter.

When implementing my project, I realized that elaboration theory is subjective in the sense that what's considered easiest to hardest in subject matter to me, may be different for my students. Due to this, this is an area that I will have to explore again once the course has been completed by students and I can request feedback.

I broke my Twitter course module down into 9 separate sections as follows:

1. Overview
2. Account Setup
3. Personalization
4. First Tweet
5. Adding Followers
6. Direct Messaging
7. Tweeting Images
8. Hashtag Conversations
9. Twitter Wrap Up

Implementation of Learning Theories

The “Overview” module is mostly text based with a video of one of the founders of Twitter and an Infographic I created to display Twitter usage statistics. The “Account Setup” and “Personalization” modules are both video based. I recorded screencasts with audio instructing students step by step on how to set up their Twitter accounts and personalize them. The rest of the modules, with the exception of the Twitter Wrap Up (which is text based) is set up as a series of screenshots with words and arrows on the screenshots pointing to specific actions that a student should take to complete the steps.

The majority of the Twitter modules are set up with annotated images based on spatial and temporal contiguity theories; relating to text and images being used at the same time and in close proximity to each other. The two modules that are set up using screencasts showing users how to complete actions step by step with audio are based on the cognitive theory of multimedia learning; students learn better when audio and visuals are combined.

Implementation of Interactive Features

One of my goals when setting up and implementing my project was to use an interactive method of helping students learn. At the same time, my goal was to also use digital storytelling to help make students aware of the possibilities of Twitter. For this purpose, I set up a live Twitter feed on the right sidebar of the website. The live Twitter feed is based on hashtags and I chose the hashtag #summersocialmedia for the class to use. Once the in-person instruction of the class begins and we reach the section of “Hashtag Conversations”, the class will be prompted to use the hashtag in class, as well as on their own to form a class story.

Implementation of Good Design Principles

Each module in the Twitter course is kept simple. The text is short in length to not bore or overwhelm the students. Each video inserted was embedded so that it can be made full screen for larger viewing. In addition, the screenshots embedded in each section can also be clicked on and made larger for easier viewing.

The navigation for the Twitter module could have confused students as if they wanted to go to the next section, there was no easy way for them to accomplish that task unless they went back to the main navigation menu, then used the dropped down menu to select the next section. I solved this problem by inserting a link at the bottom of each module's page that prompts the student to click on it to go to the next section. This also solves navigation issues if the student is viewing the material using their mobile device. The main background for the website is black and the text is black; with the links being in blue, providing good contrast.

Implementation of Accessibility

Since students may be accessing the course materials on their mobile devices, such as tablets or smartphones, I used a mobile friendly WordPress theme, which scales down to the size of the device that the student is using. There was an initial issue with the header text not breaking apart correctly in the media queries, resulting in the text overlapping. I solved this issue by shortening the header text and also adjusting the line height for the text in the CSS.

Finished Project Images

The following images include my annotated screenshots used within the Twitter course modules, the interactive Twitter live feed and my Twitter statistic Infographic. The last image depicts how the site now looks scaled down on a mobile device; showing the improvement of the header text issues.

Figure 15: Artifact 1

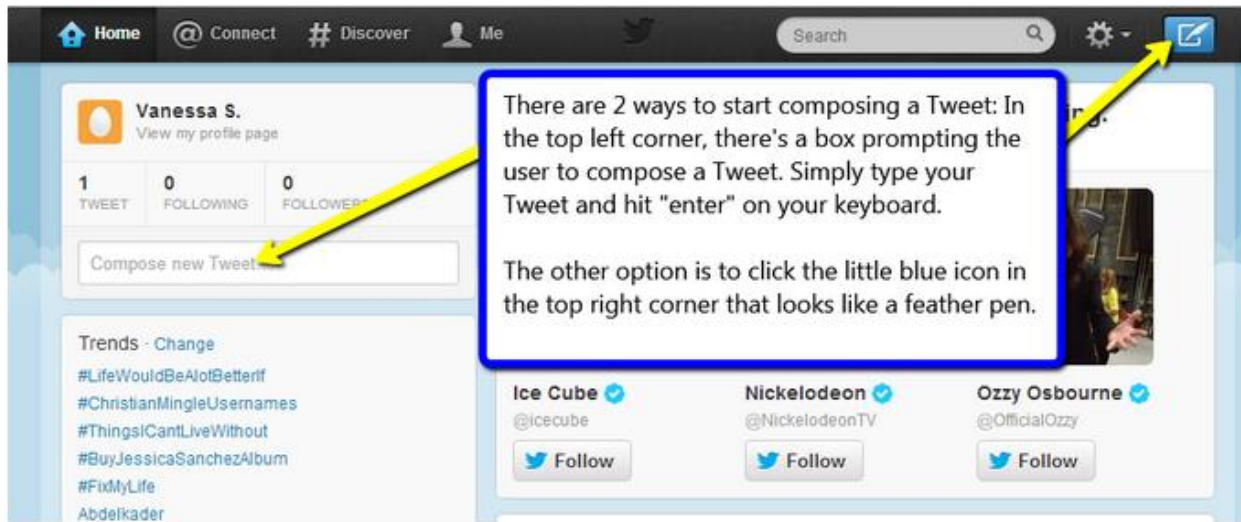


Figure 16: Artifact 2

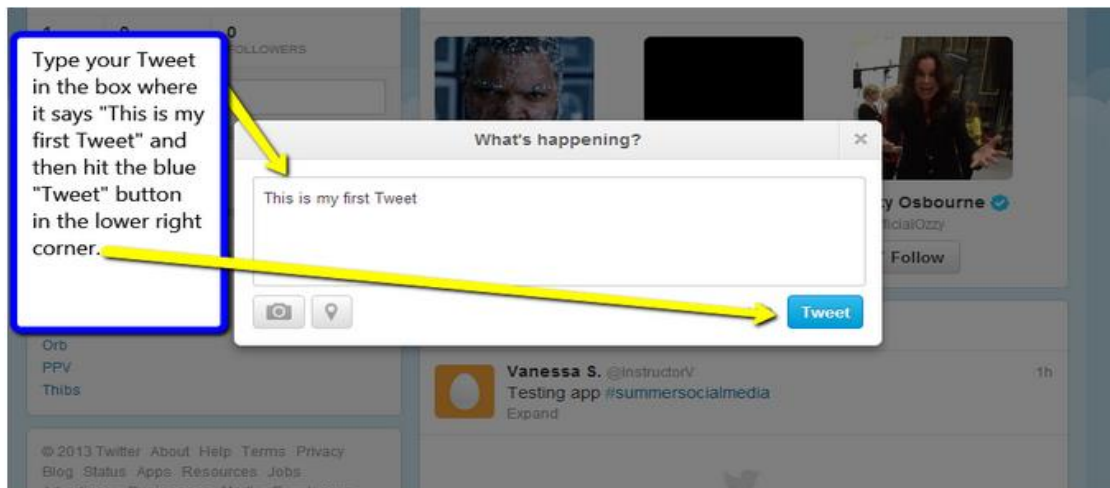


Figure 17: Artifact 3

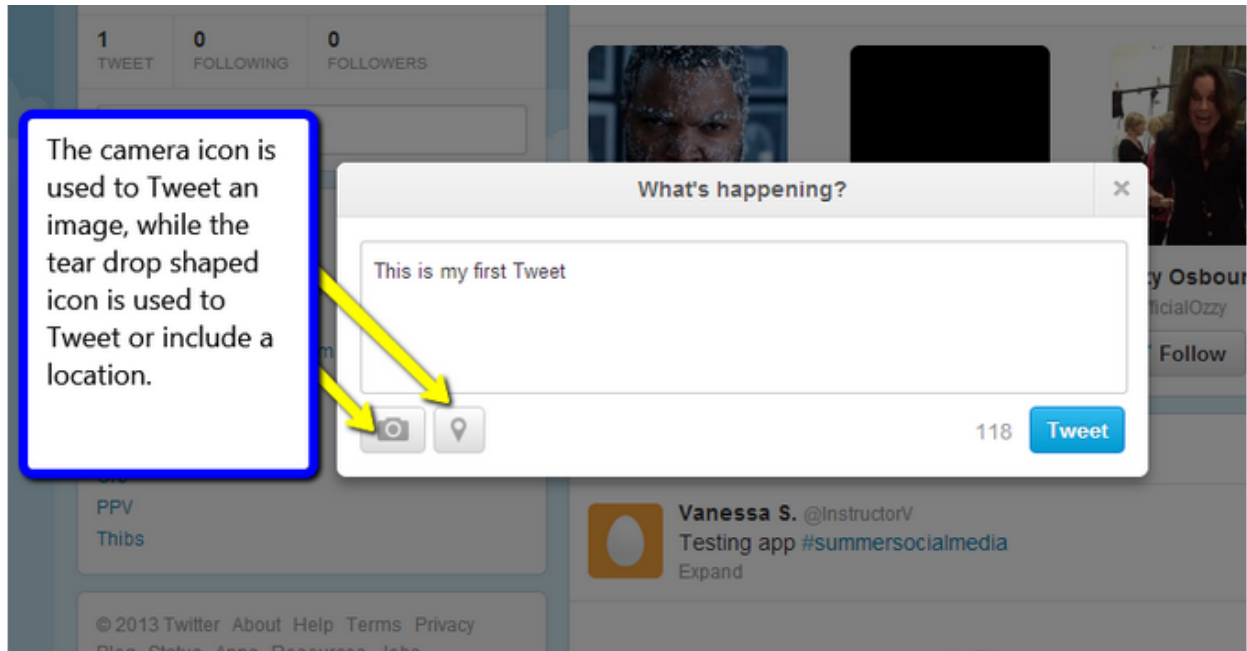


Figure 18: Artifact 4

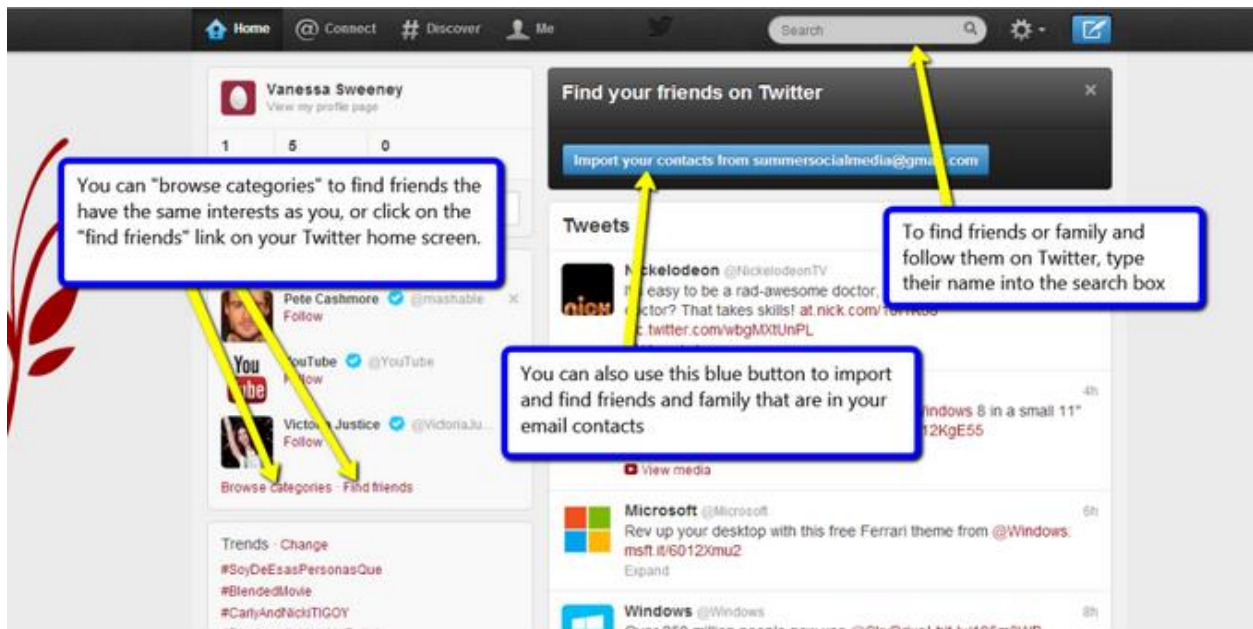


Figure 19: Artifact 5

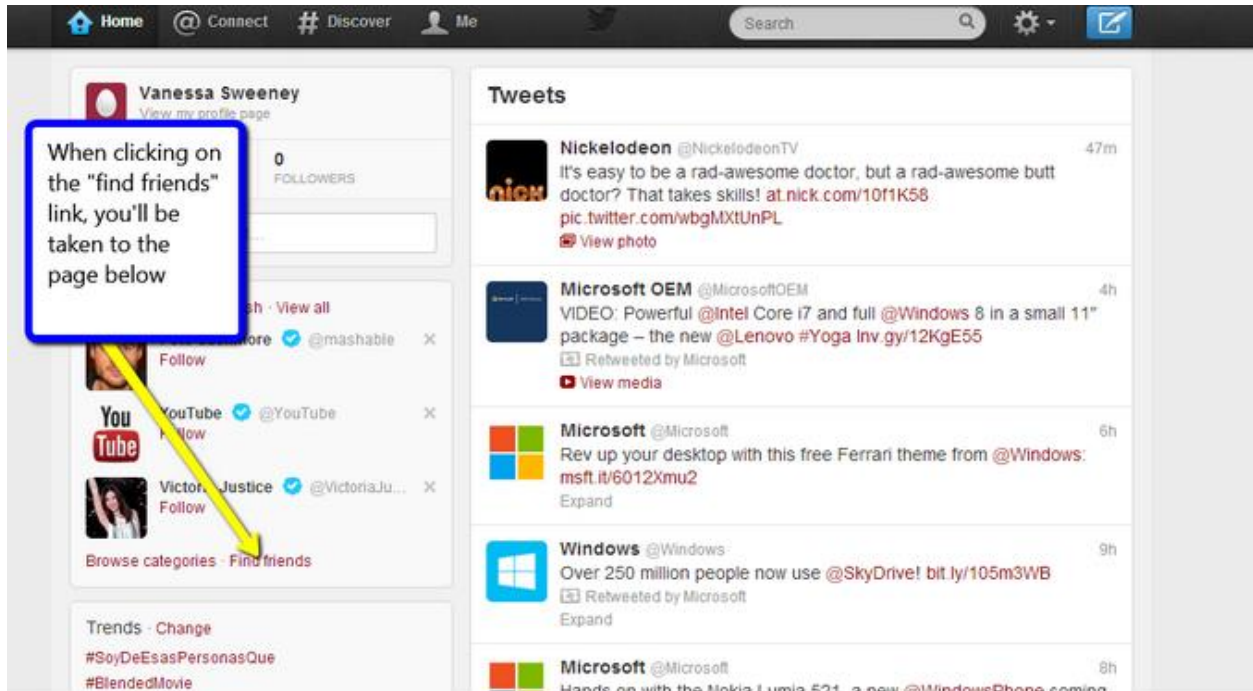


Figure 20: Artifact 6

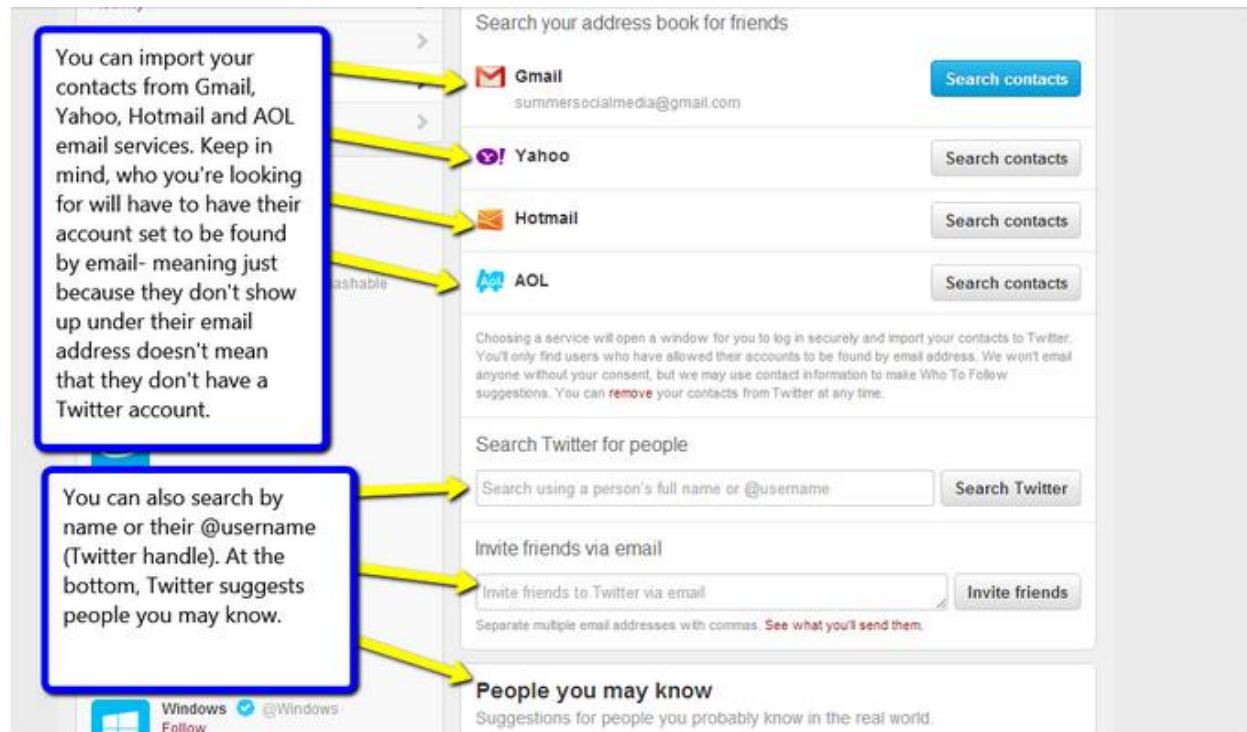


Figure 21: Artifact 7

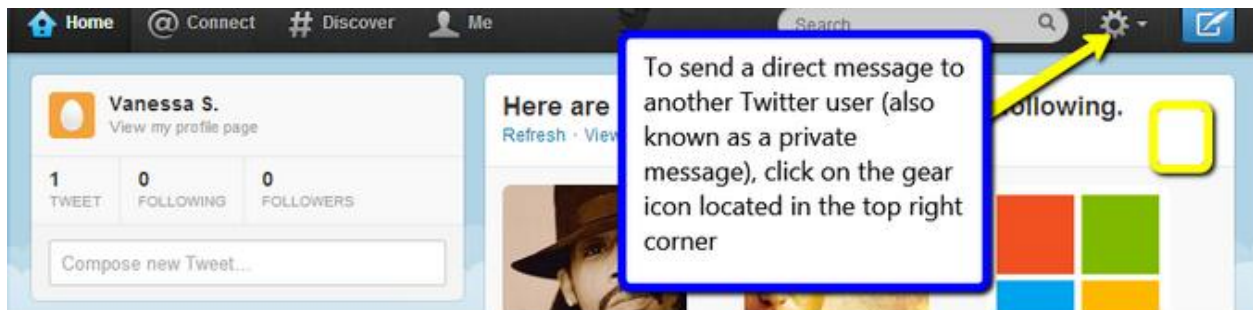


Figure 22: Artifact 8

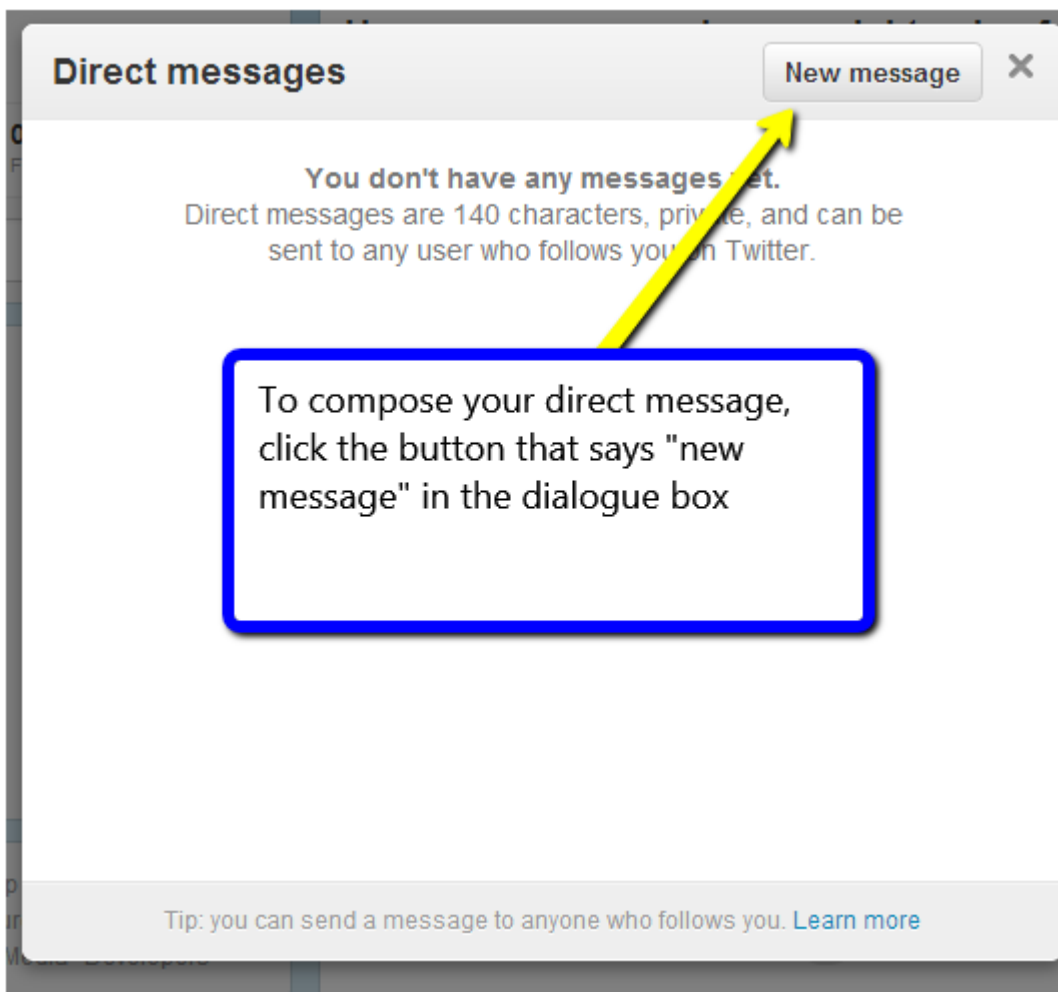


Figure 23: Artifact 9

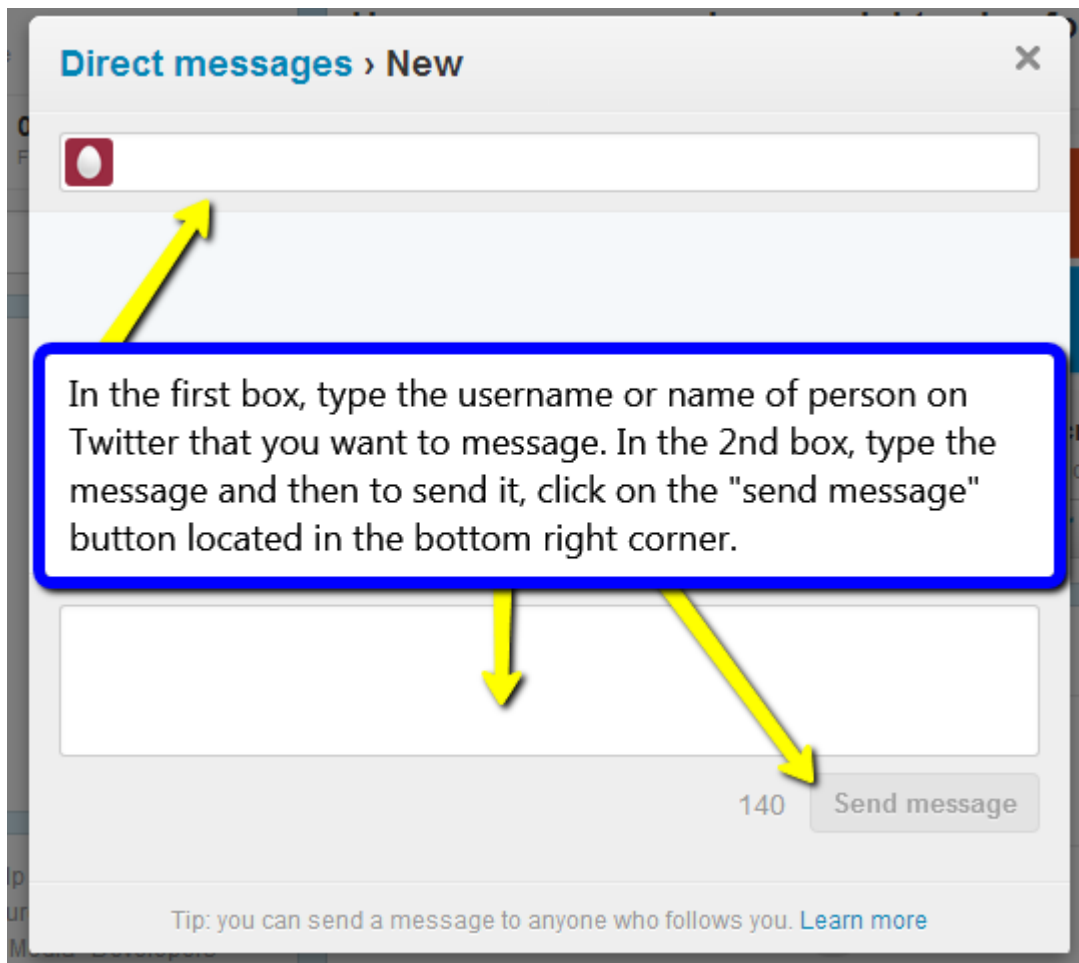


Figure 24: Artifact 10

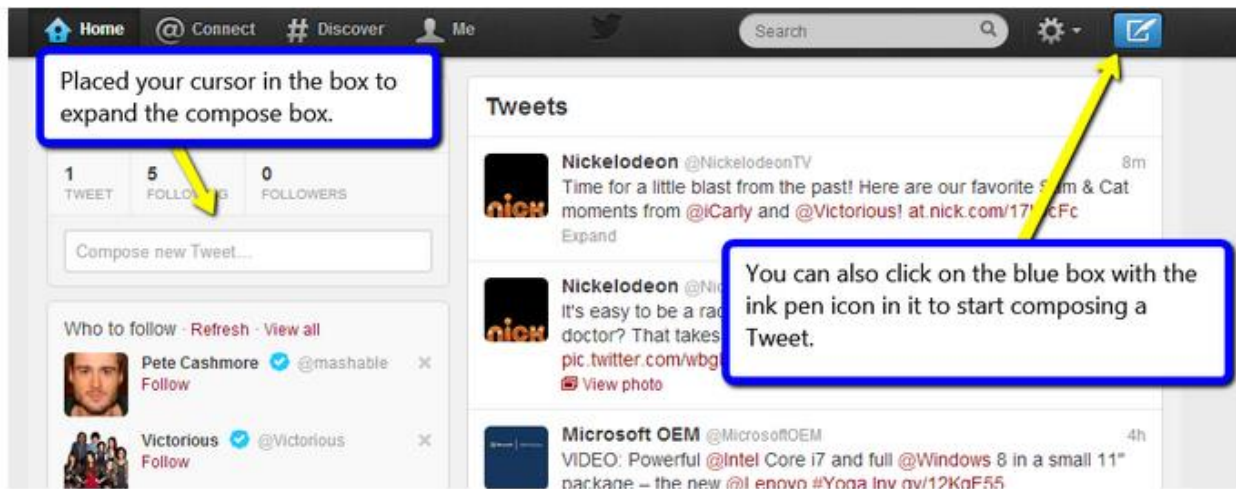


Figure 25: Artifact 11

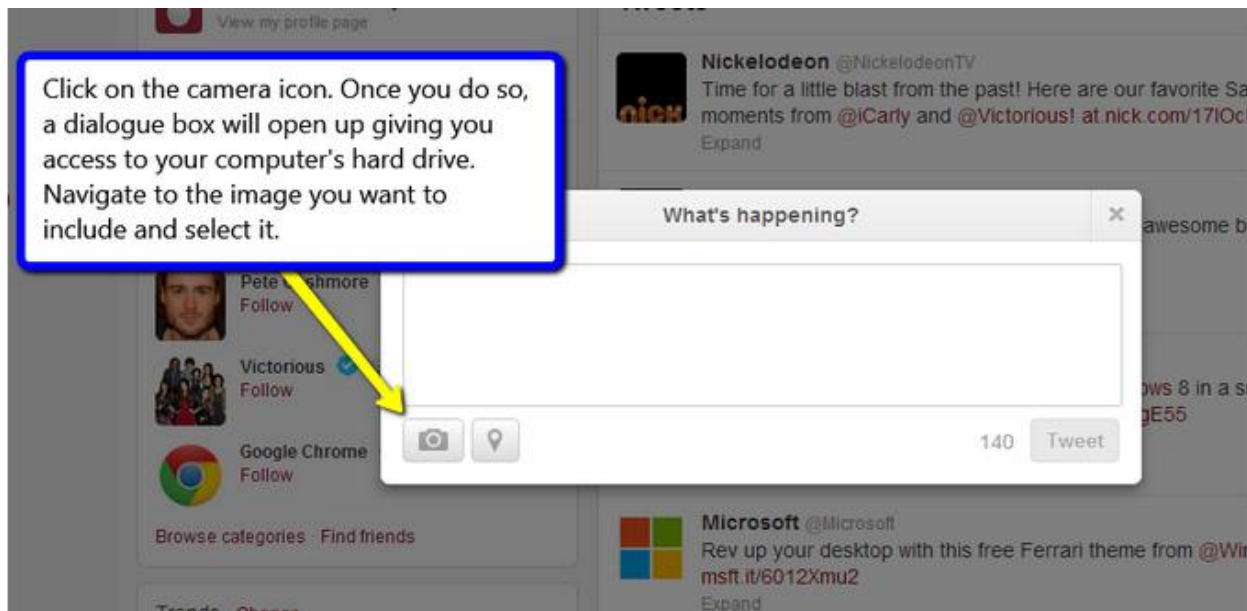


Figure 26: Artifact 12

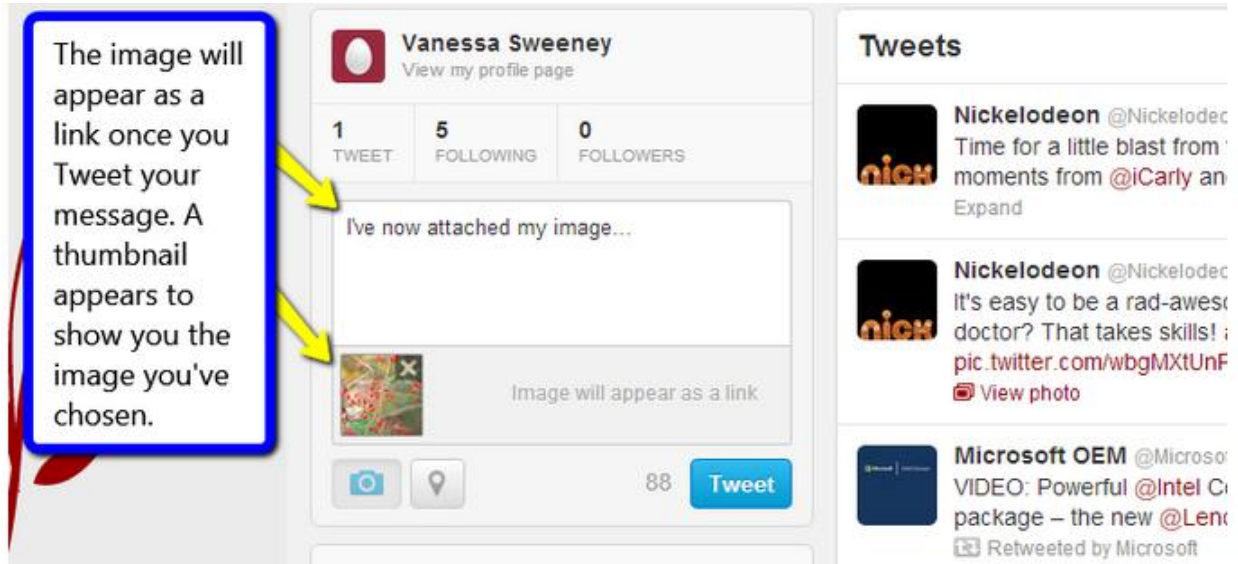


Figure 27: Artifact 13

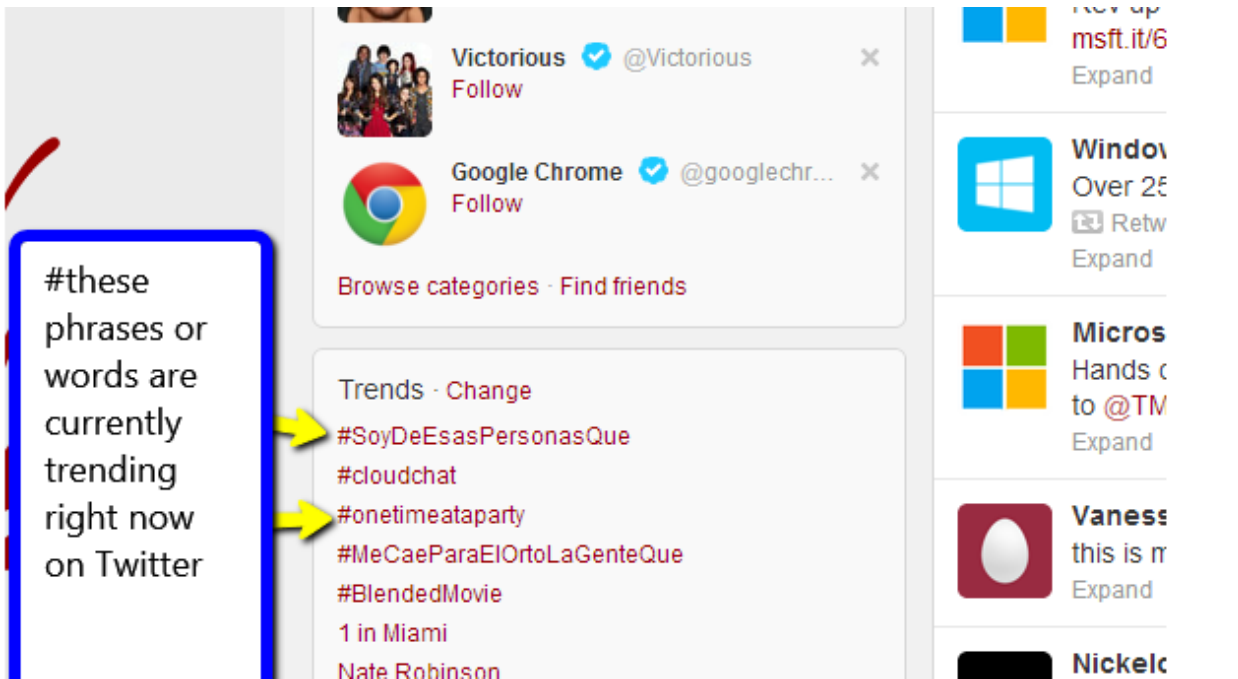


Figure 28: Artifact 14

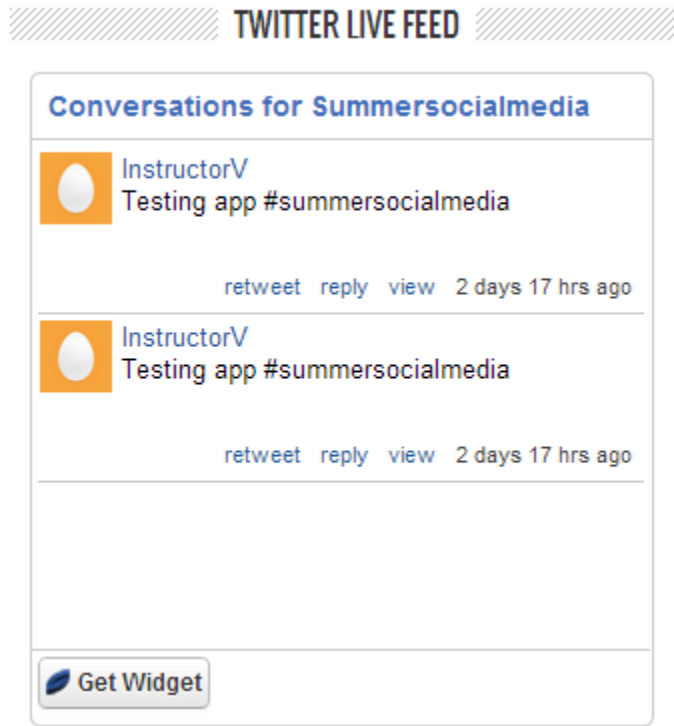


Figure 29: Artifact 15

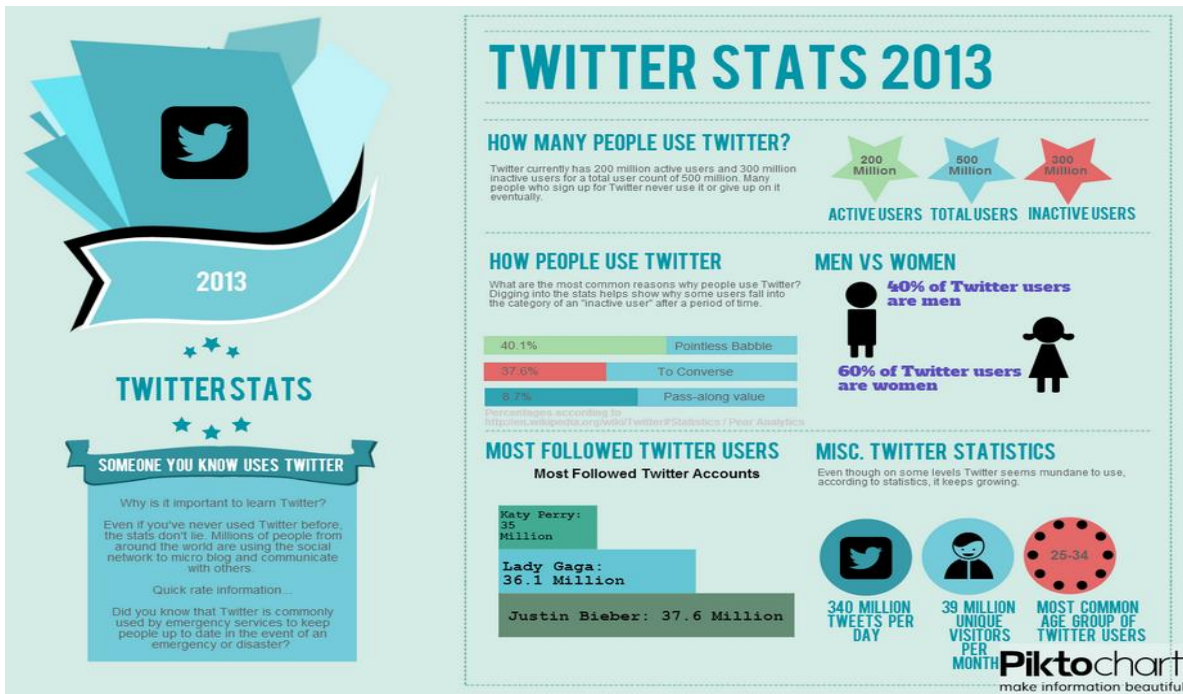
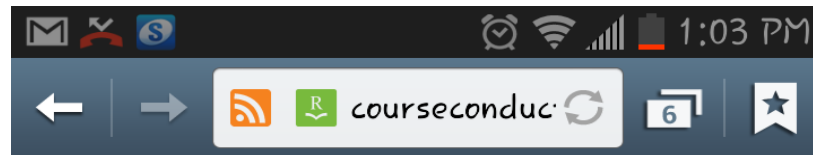
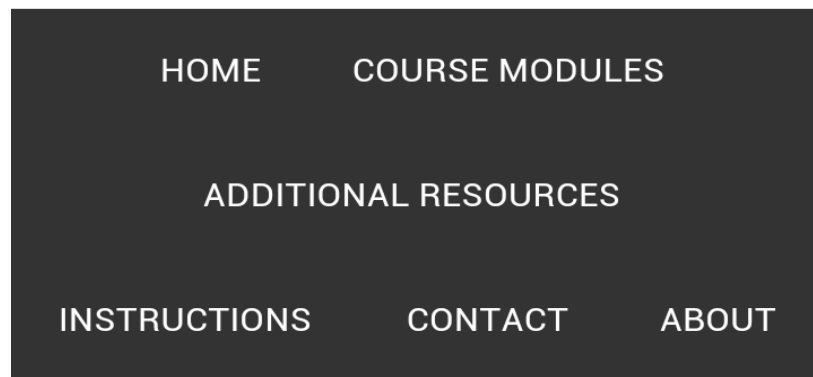


Figure 30: Artifact 16



LEARN SOCIAL MEDIA



You are here: [Home](#) / Overview



Evaluations and Conclusions

Evaluation will not take place until the end of June as that's when the course will conclude. Jamestown Community College will be responsible for acquiring feedback on the course from students and I have been given permission by Jamestown Community College to obtain my own feedback on the course modules and website.

By using multimedia learning theory, spatial contiguity theory and temporal contiguity theories, I have developed a hybrid learning module that students who will be receiving in-person instruction can reference at their leisure. The data that I have presented concludes that students using the hybrid learning format have better learning experiences than those who take only in-person instruction.

To draw a full conclusion, it's best to revisit my research questions and answer them directly:

How does the artifact meet the needs of student centered learning?

The website meets the needs of student centered learning by placing the focus on the students. The focus is placed on the students by giving them the opportunity to access the information based on their own schedules; letting them access the information based on their preferred method and giving them a few different methods of learning (video, annotated images, text and graphics).

How does the website incorporate multimedia learning theory, elaboration theory, spatial contiguity theory and temporal contiguity theory?

The website meets the needs of multimedia learning theory by providing learning materials in video format, which reach both learning channels; the visual channel and the audio

channel. In regards to elaboration theory, how the website meets this theory will not be evident until later on during the evaluation process as the theory is subjective based on individual preferences. Lastly, the annotated screenshots using both text and images meet the principles of spatial and temporal contiguity theories as words are used in close proximity to images and words are used at the same time of images (in both the videos and annotated screenshots).

How does the website adhere to good information design, accessibility and user experience principles?

As the student navigates from Twitter module to Twitter module, navigation to the next section is included at the end of each section. By setting up the navigation this way, students can jump from module to module with ease. In addition, I've implemented good contrast, legible text; along with images and videos that can be expanded for larger viewing.

By using a mobile responsive theme, my students are able to view the content on their mobile devices. If I had chosen a theme that was not responsive on mobile devices, the content would appear too small and students would have to zoom in on the information, which would not give them a positive user experience.

My evaluation of the website and modules on learning social media will continue using the ADDIE model once I can acquire feedback from students. One of the main points of the ADDIE model is constant evaluation and therefore I expect the evaluation aspect of my project will continue for some time.

Implications on Future Research

It can be assumed that as technology progresses and education shifts further towards student centered learning that there will be a greater need for hybrid learning formats that are

accessible to students online; in both credit and non-credit class formats. Due to this, it can also be expected that further research will be needed to determine what types of online learning formats work the best and what platforms courses should be built on.

In addition, it can be expected that colleges, universities, non-credit and continuing education providers will need to assess their current learning programs to see if they meet the current and future demands of students. For example, students who are restricted on time or students who do not live within close proximity of a college or educational center may demand that more courses are taught or accessible in online environments.

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Vanessa L. Sweeney

Home

20 North State Street
Warren, PA 16365
814-313-1093

Email: vlsweeney@gmail.com

Work

SUNY Institute of Technology
100 Seymour Road
Utica, NY 13502

Email: vanessa.sweeney@sunyit.edu

Date of birth: August 2, 1981

Place of birth: Erie, Pennsylvania

Education

SUNY Institute of Technology

Attendance Dates: January 2012 – May 2013

Degree: Master of Science in Information Design & Technology

Degree Award Date: Expected May 2013

Empire State College

Attendance Dates: November 2007 – April 2011

Degree: Bachelor of Science in Human Development with Select Studies in Psychology

Degree Award Date: June 2011

Tompkins Cortland Community College

Attendance Dates: May 2004 – May 2006

Degree: Associate of Applied Science in Paralegal Studies

Degree Award Date: June 2006

Awards

Information Design & Technology Program Award (SUNY Institute of Technology)

Received: May, 2013

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