

Developing a Mobile Website for iPod touch & iPhone

Web Design 2 - New Hartford High School

Background

Over the last few years, mobile Web usage has seen a dramatic rise due to the powerful mobile web browsers found on today's smartphones and Internet surfing devices such as the iPod touch and iPhone. In fact, Apple's iPhone was named the most popular phone during the third quarter of 2008, surpassing sales of Motorola's Razr, the longtime favorite in the last few years. Additionally, evidence indicates the trends are only increasing in the years ahead. For example, recent reports predict that the number of smartphones with highly capable mobile browsers will grow from 130 million today to more than 530 million by 2013!

With so many more consumers using the mobile Web now more than ever, they are looking for more freedom. They don't want the stripped down mobile Web experience available on early mobile phones. Instead, these users are looking to replicate the Web experience they have on their computers on their phones. They want to access websites designed for their device so it will make surfing the web as easy and enjoyable as possible. Interestingly, in a recent survey that half of the 20 most trafficked web sites did not work well on leading mobile phones. This could be why sites, such as Google, are being optimized for mobile users. By being formatted specifically for them, it make it much easier to access and use the websites when someone is on the go.

Objective

To support and expose you to this growing trend, your final project in this class will involve creating a full functional iPod touch based website. This will not only give you some real experience working with the web technologies that you have been learning to use over the last two courses you have taken on web design but it will also give you some experience developing for this increasing aspect of web design: mobile web design!

Design Specifications

1. The website you develop should be a real world example - something that can actually be used by students and teachers within New Hartford Central Schools OR by members of our community.
2. Complete a development plan and written site map in a word processing format before beginning development of the actual site. **This will serve as your roadmap for development and will be submitted along with the final site.**
3. Use the iWebkit resources as the framework upon which your website is based. This will ensure they work well on the device and are optimized with the device's screen correctly.
4. Use at least two examples of app integration of the iPod touch beyond the use of mobile Safari. For example, your site might include integration with PDFs, Google Maps link, or email via the iPod touch's Mail app. These extend the usefulness and functionality of your device as well as your website.
5. Development of the following design elements:
 - a. *at least* 10 custom icons as part of your interface.
 - **Interface icons** (icons appearing next to lists) should be size as 32 X 32 pixels with a rounded rectangle background and on a transparent canvas in PNG format.
 - **The webclip icon** (icon that will be saved on the iPod touch's home screen when the website is bookmarked) should 57 X 57 pixels and square in PNG format.
 - b. At least 1 resized photos (extra credit will given for original photos you have captured yourself!)
 - **Photos** that are included in your website should not exceed 320 pixels wide (the width of the iPod's viewing screen when in vertical orientation; see <http://spartandesign.org/sdm/rushmore.html> for an example web page.)

Design Resources

Below are some website that can help you in completely this project successfully.

<http://iwebkit.net>

This site offers the free and open source framework upon which our website will be based. It offers all the examples one need to create websites that look and match the look of the native applications on the iPod touch and iPhone.

<http://groupaware.mobi/iphone>

This site offers some nice examples for building website beyond what you see in the iWebkit demo. You can have many samples of code for building windows, buttons, canvas, dynamic lists, debug console and etc... There are also some nice example for iphone app integration as well.

<http://code.google.com/p/iphone-universal/>

This site offers some free excellent open source files for building pages like you see in the iWebkit demo. The image gallery is most interesting of all.

<http://alistapart.com/articles/putyourcontentinmypocket>

<http://alistapart.com/articles/putyourcontentinmypocketpart2>

Two great articles about how web pages are rendered in MobileSafari on the iPod touch and iPhone.

<http://www.iphonewebdev.com>

<http://www.jaiph.com/>

Website that give you resource pages to build a Javascript photo gallery website that looks and acts like the iPod touch & iPhone's native Photos app.

http://developer.apple.com/safari/library/documentation/AppleApplications/Reference/SafariWebContent/Introduction/chapter_1_section_1.html#//apple_ref/doc/uid/TP40002079-SW1

Apple's definitive guide about developing content for the Mobile Safari. The most helpful section here is perhaps the Layout and Metrics of Safari on the iPhone that include visual diagrams of how webpages are sized on the iPod touch's screen.

Time Frame

This project MUST be completed within **six class blocks**. If you are unable to complete the project within this time frame, you will be graded on what you have completed since the course is ending and this project serves as your final exam. Working on the project outside of class is permissible as long as it is done prior to the due date.

Evaluation/Grading

This project will be grading using the following rubric. Numbers in parentheses represent total points that can be earned for each criterion item met. *Remember this project counts as the **final exam grade** that appears on your report card!*

A (90-100+)	<ul style="list-style-type: none">○ Project completed on time (+14)○ Meets all design specifications (+36)○ Design shows high level of creativity and independent technical proficiency in both graphic development and HTML coding (+60)
B (80-90)	<ul style="list-style-type: none">○ Project completed on time○ Meets most design specifications○ Design shows some creativity and correct use of graphic tools and HTML coding with minimal teacher assistance
C (70-80)	<ul style="list-style-type: none">○ Project not completed on time○ Meets some design specifications○ Design shows little creativity and correct use of graphic tools and HTML coding (buttons not working correctly, etc.) with some teacher assistance.
D (60-70)	<ul style="list-style-type: none">○ Project not completed on time○ Meets very few design specifications○ Design shows no creativity and/or incorrect/unable use of graphic tool and HTML coding with lots of teacher assistance.
F (0-60)	<ul style="list-style-type: none">○ Project not completed or attempted