

Building a Simple Mobile-optimized Web App/Site Using the jQuery Mobile Framework (part 2)

pinboard.in tag

<http://pinboard.in/u:jasonclark/t:amigos-jquery-mobile/>

Agenda

- Open questions on jQuery Mobile template and Assignment 1
- Acquire Best Practices for Mobile Design & Development.
- Learn about Tips and Tools for Mobile Design & Development.
- Discussion of Next Steps and Assignment 2.

Mobile Development - Demos

Demos:

Responsive Design Template (custom)

www.lib.montana.edu/~jason/files/responsive-design/

Mobile Template (jQuery Mobile)

www.lib.montana.edu/~jason/files/touch-jquery/

Code Samples and Downloads:

www.lib.montana.edu/~jason/files.php

Your Live Site

To test your work use this URL, but change it to your user number.

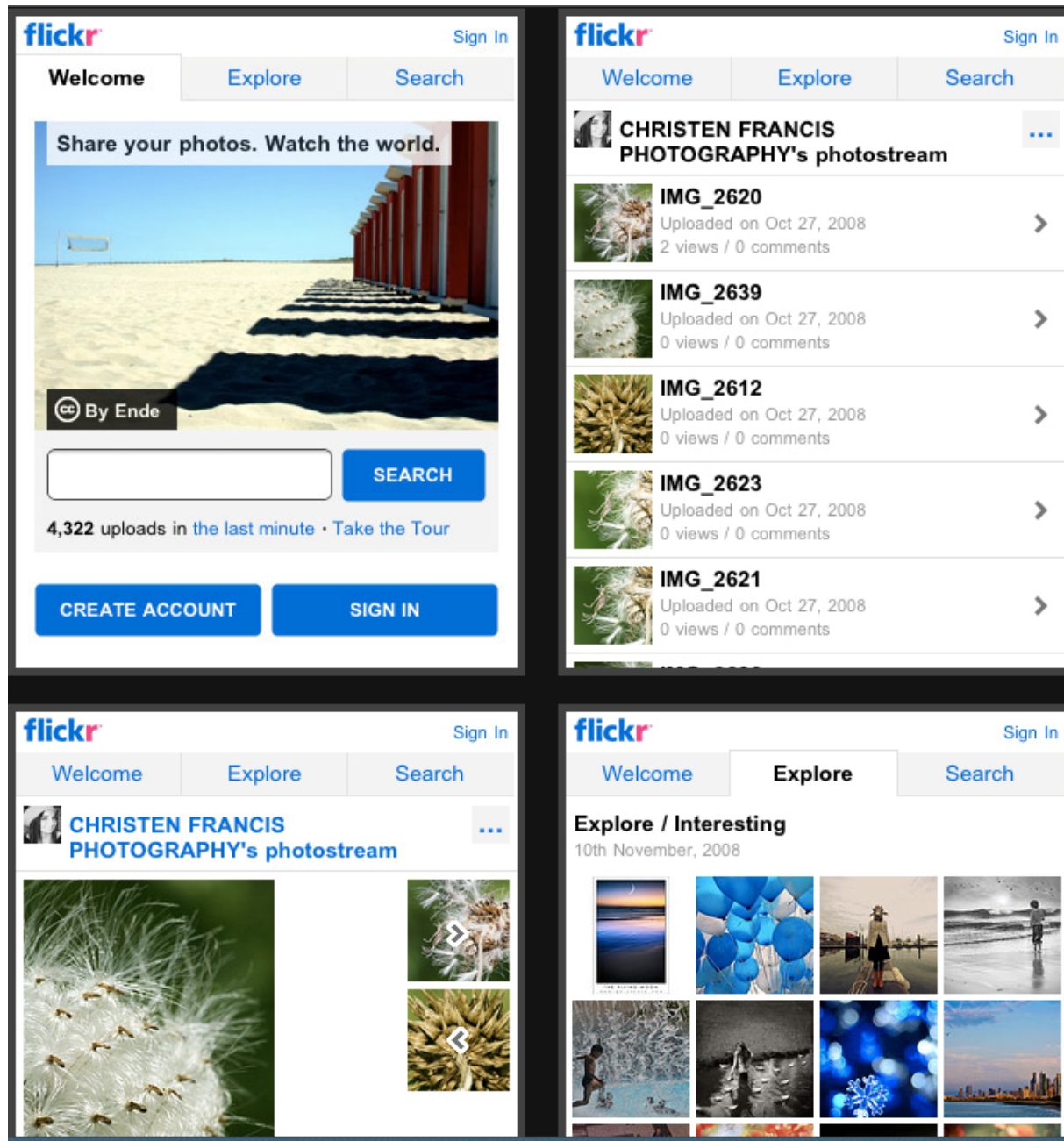
Example: [http://marcomponline.com/chadtest/
Class/lastname/touch-jquery/index.html](http://marcomponline.com/chadtest/Class/lastname/touch-jquery/index.html)

Making the Move to Mobile...

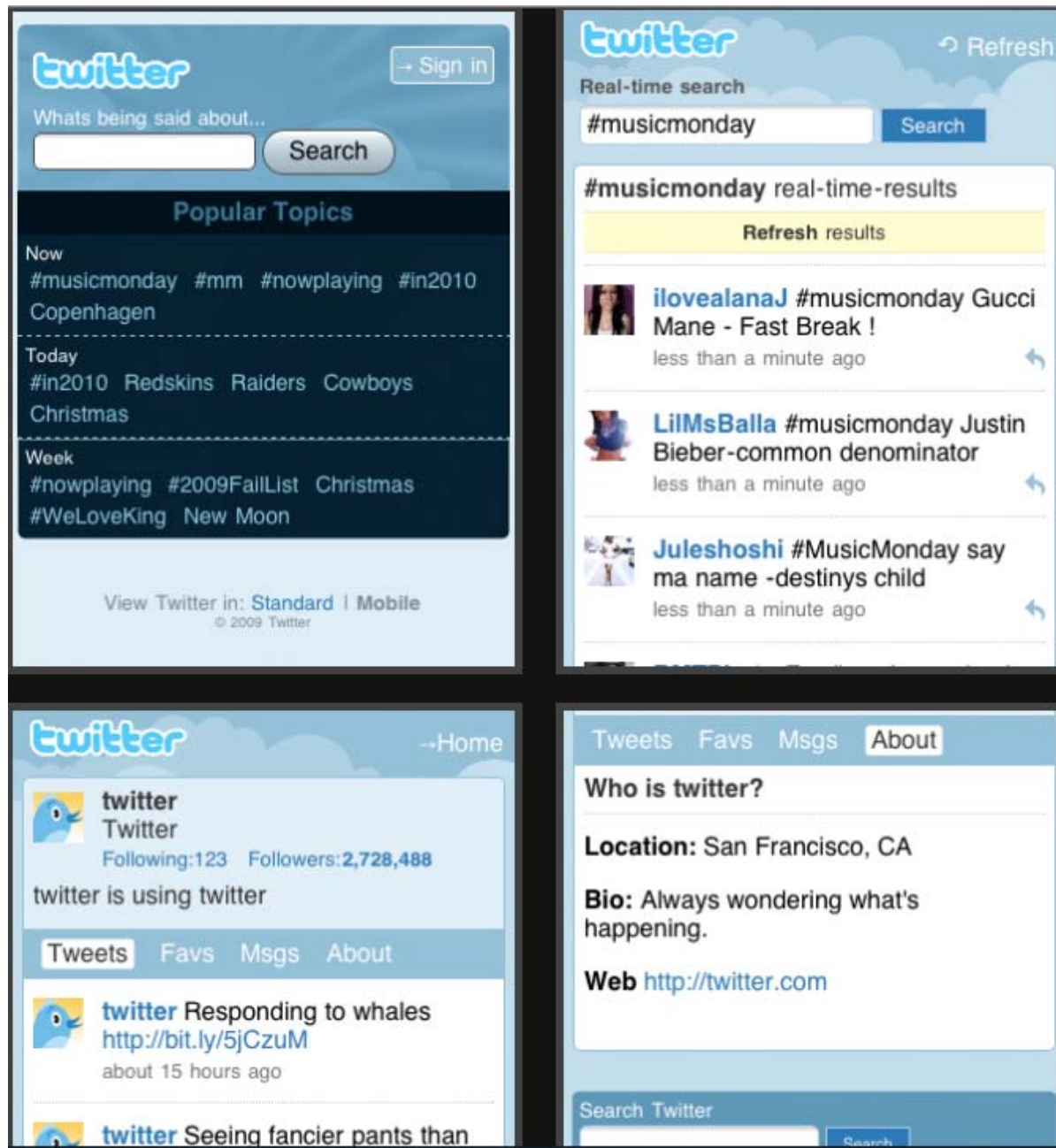
“My goal was initially just to make a mobile companion for the facebook.com mothership, but once I got comfortable with the platform I became convinced it was possible to create a version of Facebook that was actually better than the website.”

Joe Hewitt, lead developer for touch.facebook.com

Source: <http://joehe Witt.com/post/ipad/>



<http://m.flickr.com>



<http://mobile.twitter.com>

amazon.com.

Kindle Store

Shop More Than 280,000 Books

Browse Books by Category >

New York Times Best Sellers >

Kindle Top Sellers >

New & Noteworthy >

Recommended for You >

amazon.com.

Browse More Than 280,000 Books

All Books
282,781 >

Fiction
111,272 >

Nonfiction
169,448 >

Advice & How-to
19,977 >

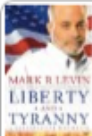
Business & Investing
25,559 >

Politics & Current Events
11,380 >


Literary Fiction
8,692 >

amazon.com.

Kindle Store > New York Times Best Sellers

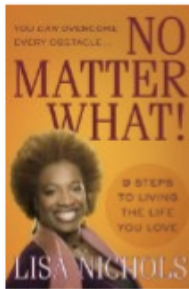


1. [Liberty and Tyranny: A Conservative Manifesto \(Kindle Edition\)](#)
Mark R. Levin
\$9.99 - Auto-delivered wirelessly
★★★★☆ (1101)



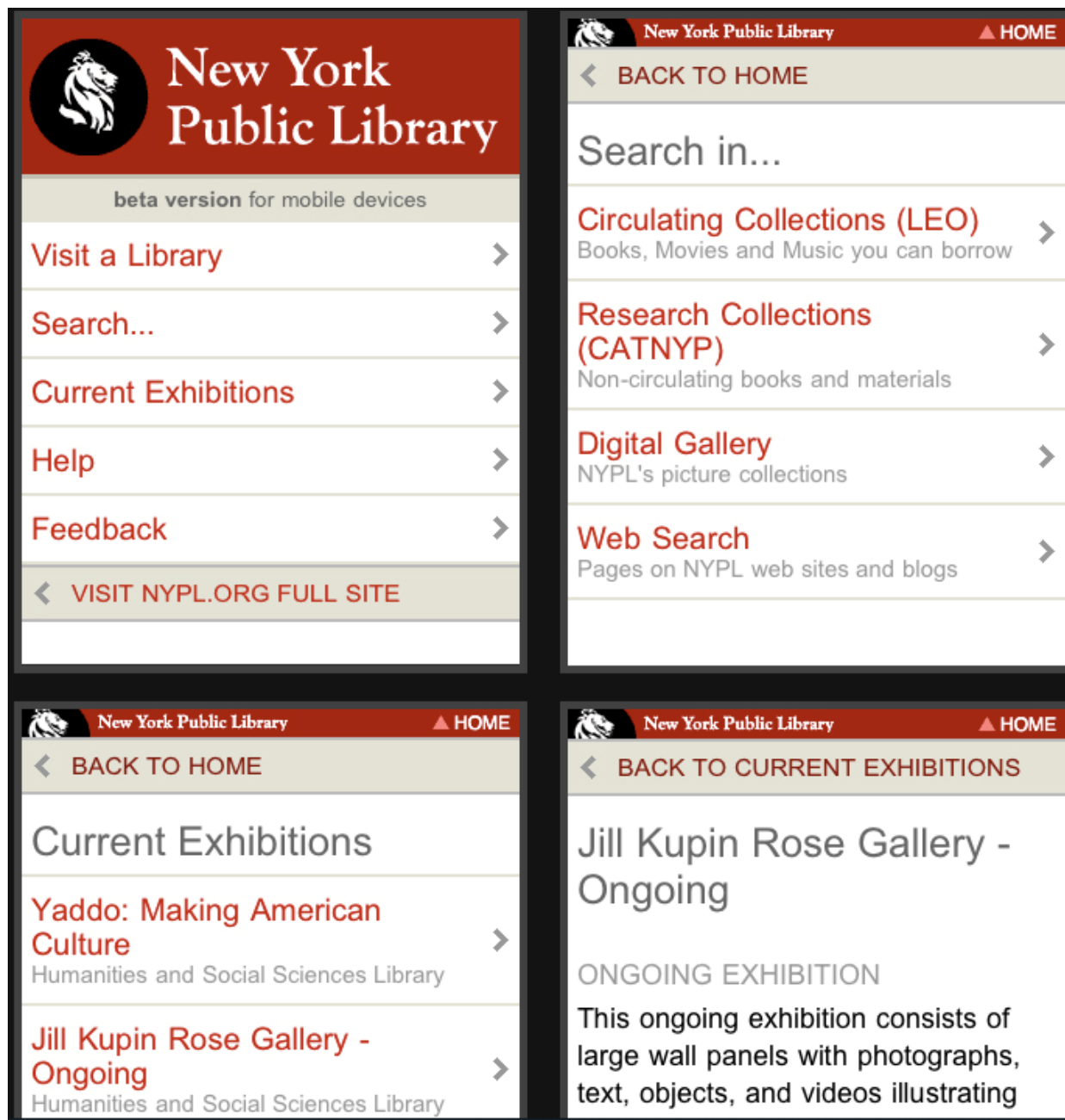
2. [The Help \(Kindle Edition\)](#)
KATHRYN STOCKETT
\$9.99 - Auto-delivered wirelessly
★★★★☆ (251)

amazon.com.



No Matter What!: 9 Steps to Living the Life You Love (Kindle Edition)
Lisa Nichols (Author)
Digital List Price: ~~\$24.99~~
Print List Price: ~~\$24.99~~
Kindle Price: **\$9.99**
You Save: **\$15.00 (60%)**
Sold by Amazon Digital Services

<http://www.amazon.com/gp/aw/kindle/storefront/>



<http://m.nypl.org>

Exercise

- Pick a web site
- Define primary mobile actions
- Choose mobile entry points (links)
- What do library patrons want to do with library services in the mobile setting?

functional
essence

necessary primary essential

core

simple



MONTANA
STATE UNIVERSITY

LIBRARY

ASK A LIBRARIAN

[Chat](#) | [Text](#) | [Email](#) | [Phone](#)



CatSearch

[Advanced Search](#) | [About CatSearch](#) | [Feedback](#)

SEARCH

Find

[Books \(Library Catalog\)](#)
[Articles & Research Databases](#)
[Journals \(JournaList\)](#)
[Digital Collections](#)
[+ more...](#)

Services

[Request It!](#)
[Interlibrary Loan \(ILL\)](#)
[Renew Books](#)
[Schedule Group Room](#)
[+ more...](#)

Course Materials

[Reserves](#)
[Desire2Learn](#)
[Library 121](#)
[Instruction Services](#)
[Guides | Tutorials](#)

Help

[Library FAQ](#)
[Research Assistance](#)
[Borrowing from MSU Library](#)
[Library Accounts & Passwords](#)
[+ more...](#)

Spotlight



Late Night at the Library:
Extended Hours

About Us

[Staff Directory](#)
[Give to the Library](#)
[Library Collections](#)
[Site Search](#)
[+ more...](#)

News & Events

Today's Hours

- 3/22 Free Workshop: Citing Sources Properly
- 3/14 Free Workshop: Exploring Wikipedia
- 4/12 Distinctive Dialogues
- Gothic & Horror in Fiction & Film

[More News](#)

[More Hours](#)





MSU Library (Mobile)

Search



Databases



Hours



Ask a Librarian



About



Where



Home



Search



Ask



Full site



Inspiration, Discovery, Knowledge



CatSearch

Search for articles, journals, books and more

SEARCH

[Advanced Search](#)

FIND

Find research materials, including articles, books, databases, journals, and course reserves

REQUEST

Request resources and services, including group study rooms, laptops, documents, and books

INTERACT

Learn about the library and meet with us for research assistance, writing help, and tech support

[Events](#)

[Hours](#)

[Twitter](#)

10/15 Library Workshop: Google Search Secrets

10/16 Library Workshop: Word 2010 Tips & Tricks

10/23 Library Workshop: Keyboard Shortcuts: Let your f

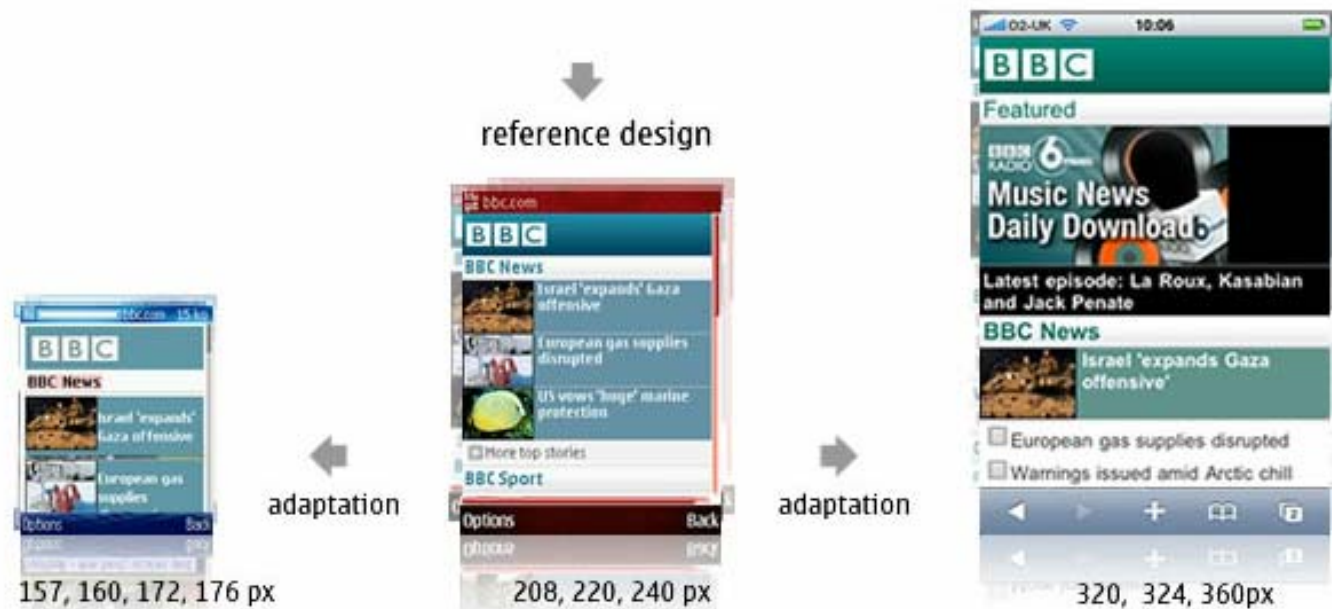
Database trial: IBISWorld Industry Research Reports



Some Best Practices

- Follow the "m" convention (m.novarelibrary.com OR lifeonterra.com/m/)
- Keep categories (directories) short. Remember that you are creating a page that people touch without much typing
- Limit image and markup sizes
- Limit HTML pages to 25KB to allow for caching
- "Minify" your scripts and CSS (JSLint, CleanCSS)
- Link to Full Site
- Sniff for User Agent – Detection (allow the user to decide where to go)
- One Column Layout with some whitespace
- Mobile refers to the user!

Mobile Screen Resolutions



Android (Motorola Droid) 480x854

Android (MyTouch) 320x480

Android (Nexus One) 480x800

Apple iPhone 320x480

Apple iPad 1024x768

Palm Pre 320 x 480

Small Screen Rendering (260 px) using the Web Developer add-on in Firefox

Desktop

SPC M.M. Bennett Libraries
St. Petersburg College classic view

Download SPC Library Toolbar

Home Mobile Text-Only Databases A-Z or by Subject Journals A-Z My Account

Library Search Article Search Subject Guides Databases & Journals

Enter Search Terms Go >>

Advanced Library Search | What am I searching?

I Need to Find

- Books and More
- Articles
- Journals A-Z
- Citation Help
- Subject Guides
- Course Reserves

SPC Links

- ANGEL
- Contact Staff/Faculty
- Critical Thinking Gateway
- Library Events
- MySPC
- SPC Home

Library Information & Help


- FAQ's - Frequently Asked Questions
- Instruction Request Form
- Interlibrary Loan Form *What is this?*
- Library Locations & Hours
- Library Policies and Procedures
- Renew Items
- SPC Archive - Digital Collection

News

- New database: DemographicsNow
- To Kill a Mockingbird Turns 50!
- New databases: GREENR and Grzimek's Animal Life
- Local Book Talks & Signings
- The Madonnas of Echo Park

New Titles

New Titles @ SPC Libraries



Small Screen

SPC M.M. Bennett Libraries
St. Petersburg College classic view

Home Mobile Text-Only Databases A-Z or by Subject Journals A-Z My Account

Story Time!
West St. Petersburg Community Library / Gibbs Campus

Library Search Article Search Subject Guides Databases & Journals

Enter Search Terms Go >>

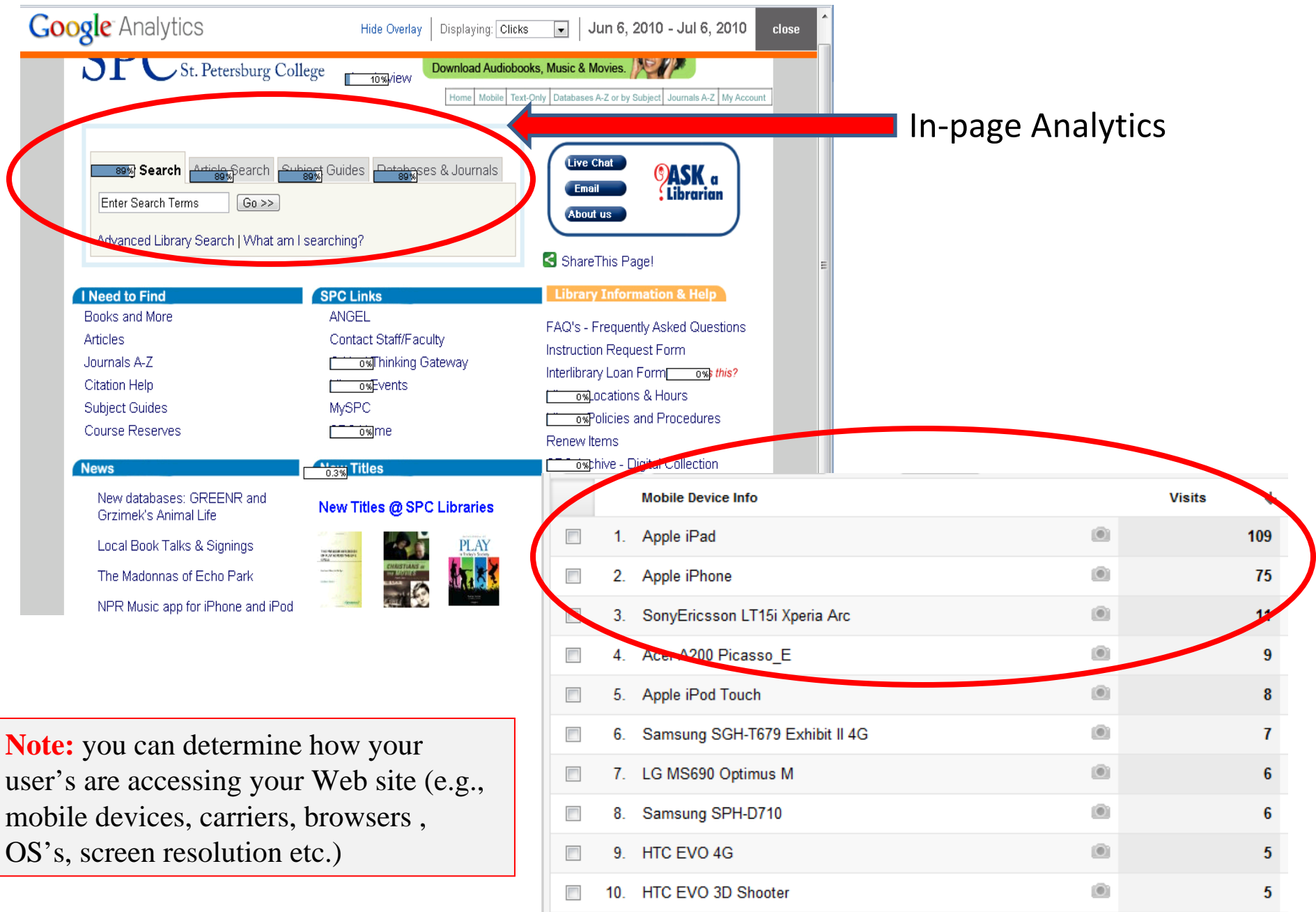
Advanced Library Search | What am I searching?

ShareThis Page!

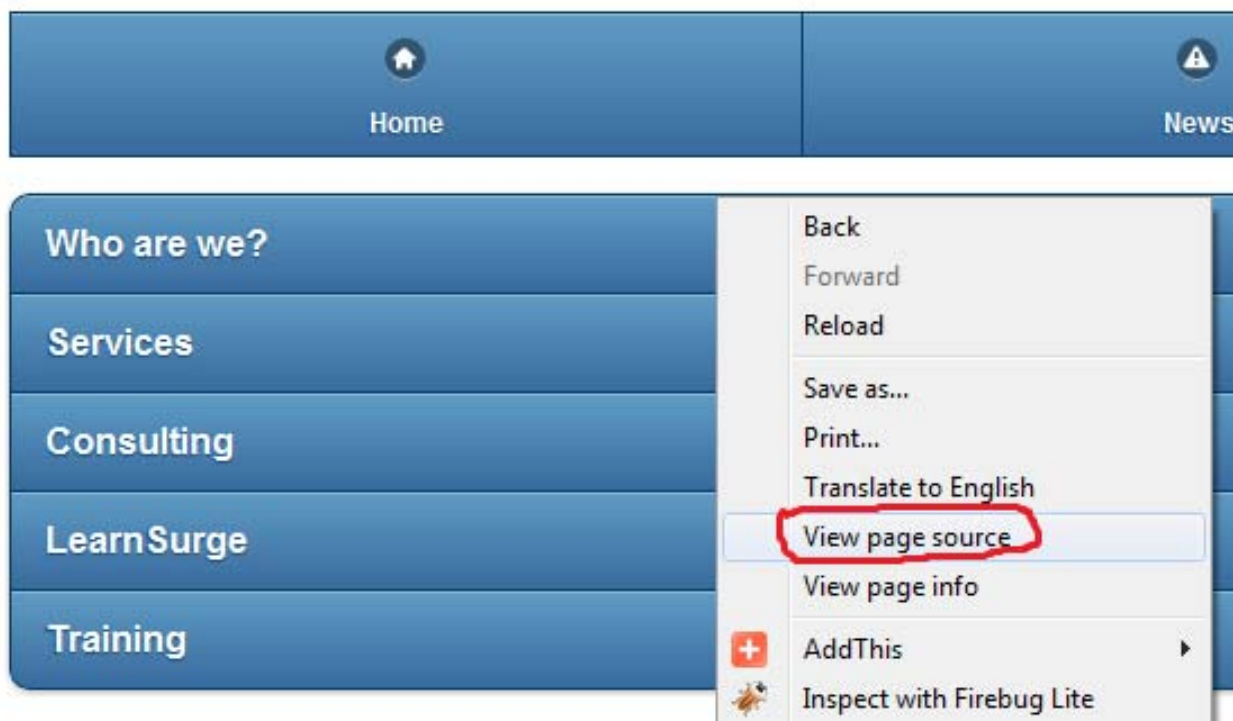
Library Information & Help

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I Need to Find

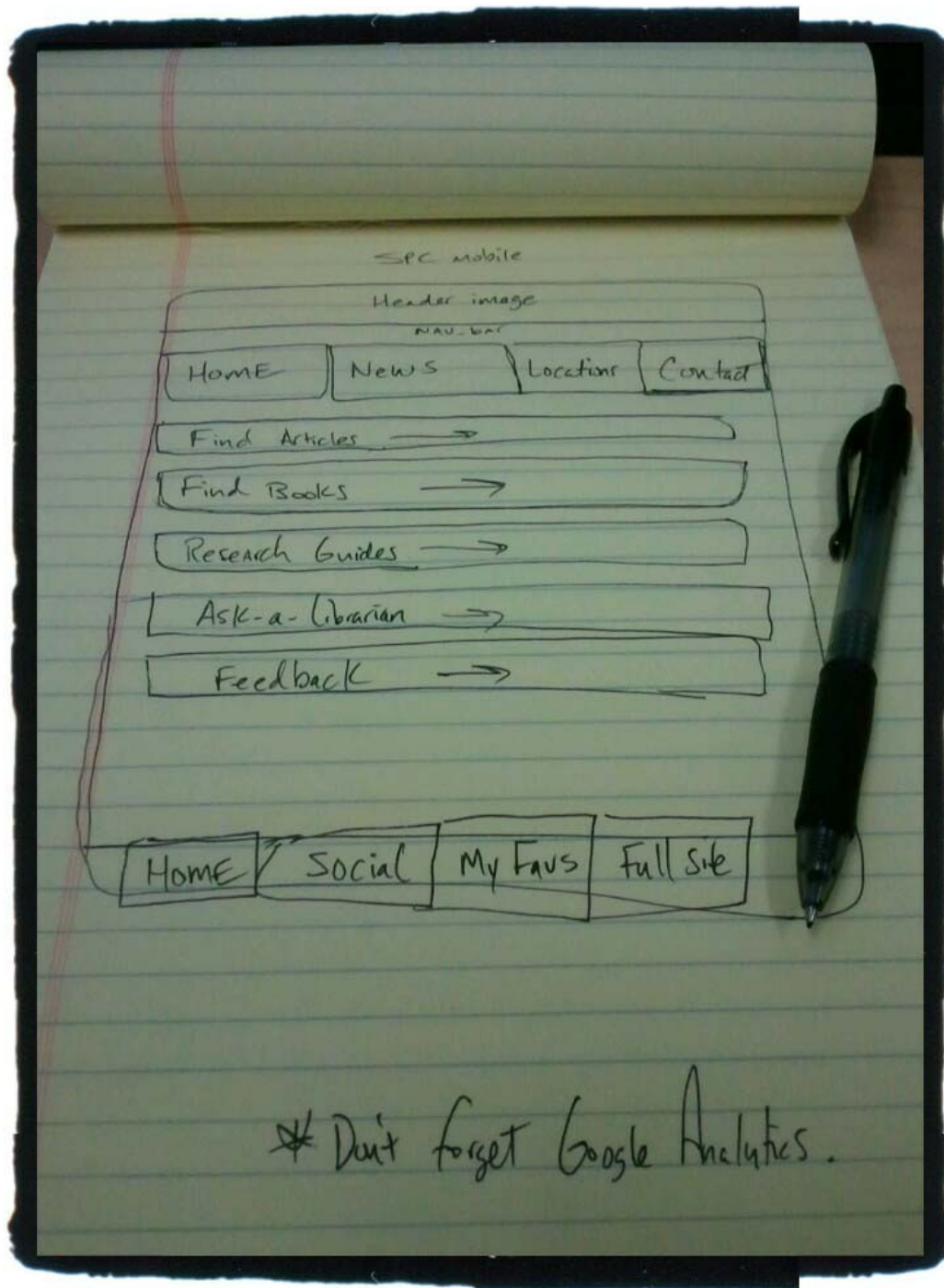


Learn and borrow from sites you like.



<http://m.novarelibrary.com/>

Sketch ideas



Testing and validation

SPC SPC Libraries Mobile | Home

SPC M.M. Bennett Libraries
St. Petersburg College

1. [Hours](#)
2. [Contact us](#)
3. [Directions](#)
4. [Find articles](#)
5. [Find books](#)
6. [Call the Library](#)
7. [Popular Links](#)

Connect with us on --> 

Test Page Speed in Firebug

Console HTML CSS Script DOM Net Page Speed Page Speed Activity

Performance Resources Export Help

Page Speed Score: 84/100 Refresh Analysis

 Leverage browser caching

The following cacheable resources have a short freshness lifetime. Specify an expiration at least one week in the future for the following resources:

- <http://www.spcollege.edu/central/libonline/mobile/css/mobile.css> (expiration not specified)
- <http://www.spcollege.edu/central/libonline/mobile/images/facebookBtn.gif> (expiration not specified)
- <http://www.google-analytics.com/ga.js> (1 day)

 Minify CSS

 Serve static content from a cookieless domain

 Specify a Vary: Accept-Encoding header

 Minify HTML

 Optimize images

 Enable compression

 Minify JavaScript

 Remove unused CSS

 Avoid bad requests

 Combine external CSS

 Combine external JavaScript

 Minimize DNS lookups

 Minimize redirects

 Minimize request size

 Optimize the order of styles and scripts

 Parallelize downloads across hostnames

 Put CSS in the document head

 Remove query strings from static resources

 Serve resources from a consistent URL

 Serve scaled images




Firebug


Web Development Evolved.

<http://getfirebug.com/>

W3C mobileOK Checker

<http://validator.w3.org/mobile/>

 **W3C mobileOK Checker**
Is your Web site mobile-friendly?



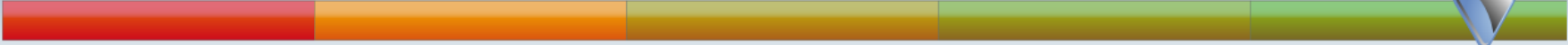



[Expand all](#) | [Expand one level](#) | [Collapse one level](#) | [Collapse all](#)

► Address

http://www.spcollege.edu/central/libonline/mobile/index.html





▼ Result

96%




96%

FAILURES PER SEVERITY

	CRITICAL	0
	SEVERE	0
	MEDIUM	0
	LOW	2

FAILURES PER CATEGORY

	Rely on Web standards	2
---	-----------------------	---

↑ TOP

► Page Size

5.9KB

► Network usage

3 requests

▼ Detailed report

http://ready.mobi

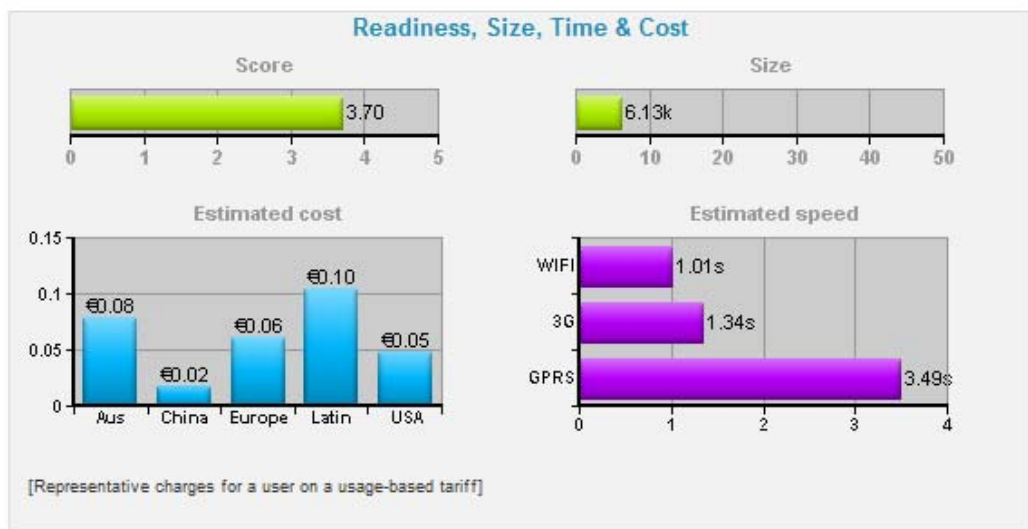
mobiReady.

YOU ARE HERE: [home](#) > [page results](#)

Username: Password:
Use your mobiForge sign-in - [Sign up@mobiForge](#) - [Lost password](#)

Page results

URL tested: <http://www.spcollege.edu/central/libonline/mobile/index.html>



About this report



Ready.mobi uses industry standard tests developed with the W3C and leading mobility companies.

Ready.mobi provides an analysis of how your web content is likely to function on a mobile device.



Many tests performed by ready.mobi are defined by the W3C in the [MobileOK Basic Tests 1.0](#) document.

More testing?



[Back to start page](#)

[Retest this page](#)

Test another page

Feedback



How useful did you find this report?

Take an emulated look at your desktop site.

Mobile Site

Select Skin:



Desktop Site

Select Skin:



Emulators/Simulators:

- Cowemo Mobile Emulator: <http://www.mobilephoneemulator.com/>
- dotMobi Emulator - <http://mtld.mobi/emulator.php>
- Opera Mini Simulator - <http://www.opera.com/mobile/demo/>
- Mimic - emulates European and Japanese models: N400i and N505i. <http://pukupi.com/post/2059>
- Android Emulator - <http://developer.android.com/guide/developing/tools/emulator.html>
- BlackBerry Device Simulators - <https://www.blackberry.com/Downloads/entry.do?code=060AD92489947D410D897474079C1477>
- iPhone Dev Center: <http://developer.apple.com/iphone/>
- Palm Pre - <http://developer.palm.com/>
- Windows Mobile - <http://msdn.microsoft.com/en-us/windowsmobile/default.aspx>
- JAVA ME - Java Platform Micro Edition was termed J2ME. It is considered one of the most ubiquitous application platform for mobile devices.
<http://java.sun.com/javame/reference/apis.jsp>

Grolsch

grolsch.com

SHARE

Tweet 8 Like 140

No one's ever changed the world by being boring

This isn't just a story about beer
This is our story of interesting choices

Schroll Down

WTF?!!!

Name	Method	Status	Type	Initiator	Size	Time	Timeline
f2.png	GET	200	image/png	jquery-1.7.1.min...	72.07KB	58.02s	
f3.png	GET	200	image/png	jquery-1.7.1.min...	70.66KB	58.96s	
f4.png	GET	200	image/png	jquery-1.7.1.min...	68.74KB	59.05s	
f5.png	GET	200	image/png	jquery-1.7.1.min...	63.82KB	59.11s	
f6.png	GET	200	image/png	jquery-1.7.1.min...	27.56KB	59.21s	
facebook.png	GET	200	image/png	jquery-1.7.1.min...	22.06KB	59.30s	

388 requests | 24.29MB transferred | 2.1min (onload: 49.60s, DOMContentLoaded: 1.23s)

Documents Stylesheets Images Scripts XHR Fonts WebSockets Other

"All sizes | Enough of this silliness | Flickr - Photo Sharing!." Last modified 10/15/2012 12:45:55.
<http://www.flickr.com/photos/philhawsworth/7562460356/sizes/l/in/photostream/> (accessed 10/15/2012).

Mobile Optimization

- Minify scripts, html, css ...
- Reduce HTTP requests
- Compress files with gzip
- Cache static resources

“Speed matters.”

<https://developers.google.com/speed/pagespeed/insights>

Mobile Analytics

- Web metrics and statistics
- Mobile search logs

“Data is your friend. Take out the guesswork.”

jQuery Mobile Templates at: <http://goo.gl/1FdO0>



Handout: <http://goo.gl/GIzWJ>

Other mobile development tools/frameworks



Mobilize.js



The Future of Mobile Web App/Site Development? Responsive Web Design?



Mobile First as Strategy

“Google programmers are doing work on mobile applications first, because they are better apps and that's what top programmers want to develop.”

- Eric Schmidt, Google CEO

<http://www.eweek.com/c/a/Midmarket/Google-CEO-Eric-Schmidt-at-MWC-Mobile-First-694942/>

Assignment 2

1. Validate your jQuery Mobile App
 - Make one optimization and tell us what it is
 2. Add Google Analytics to your template
 3. When all tasks are complete, upload index.html to Assignment 2.
- Ask us questions in the class forum

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Associate Professor

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