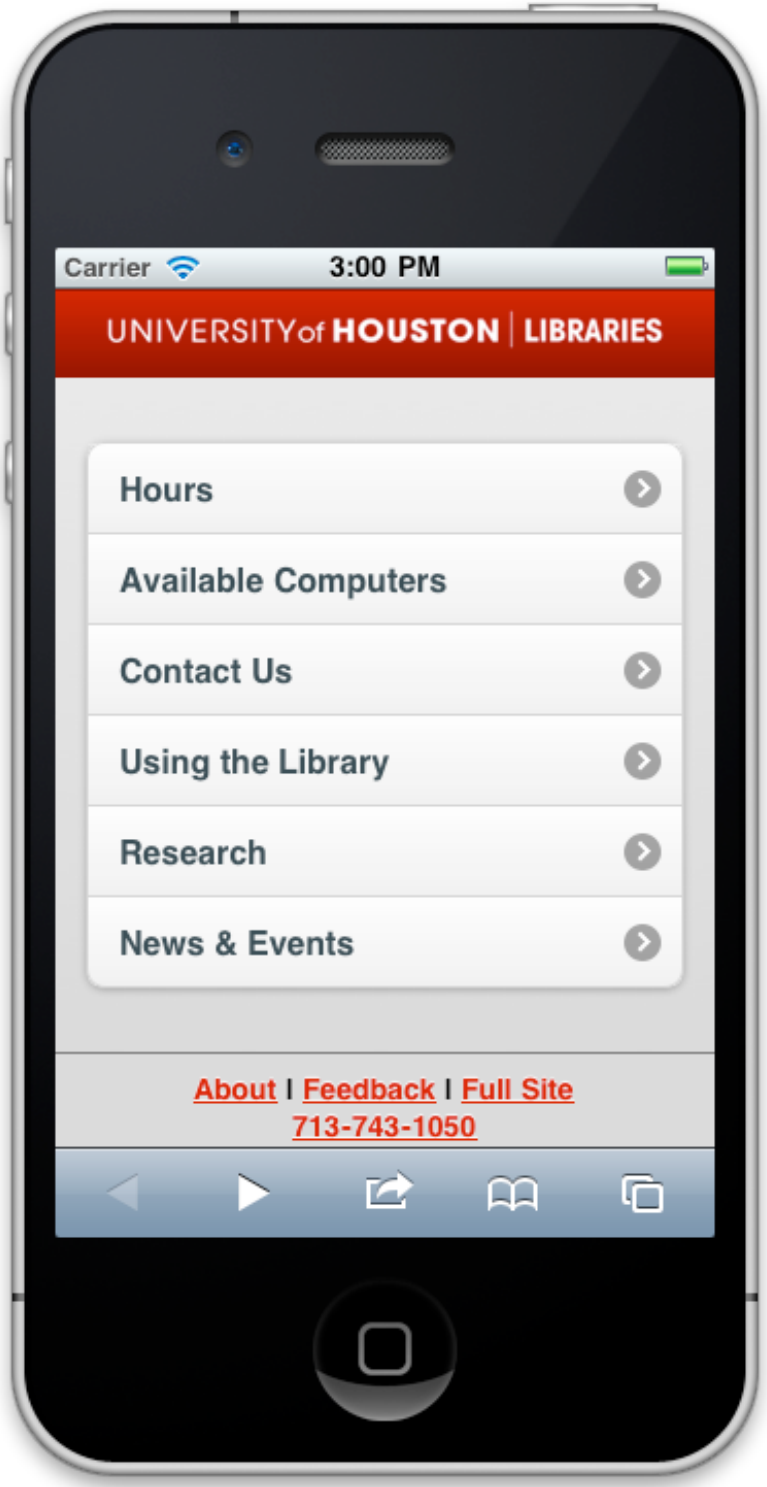
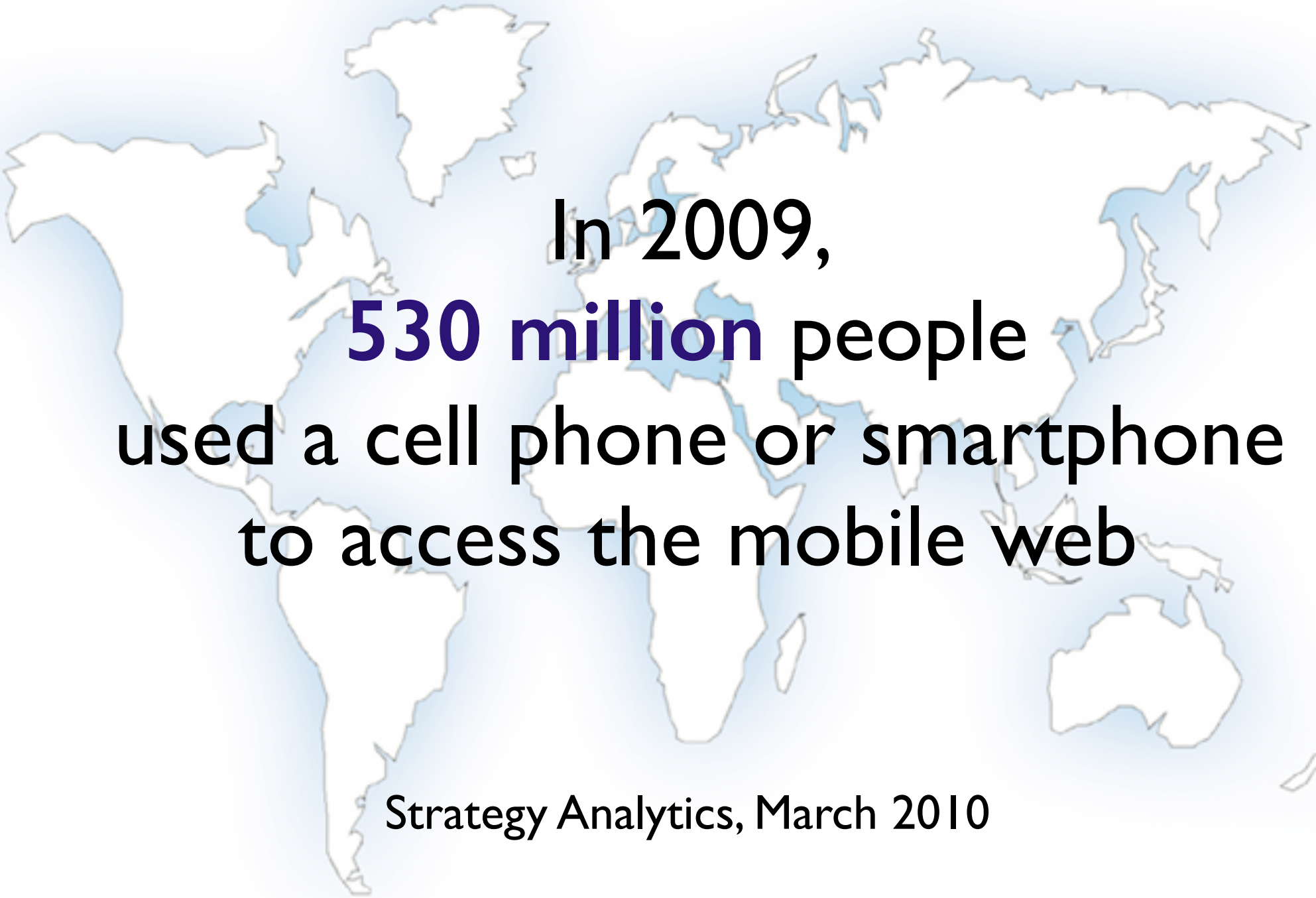
Considerations for Your Mobile Library



Rachel Vacek
Head of Web Services
University of Houston Libraries

TechNet - The North Texas Conference on Library Technology
August 3, 2011

The cell phone is history's *fastest* growing communication device

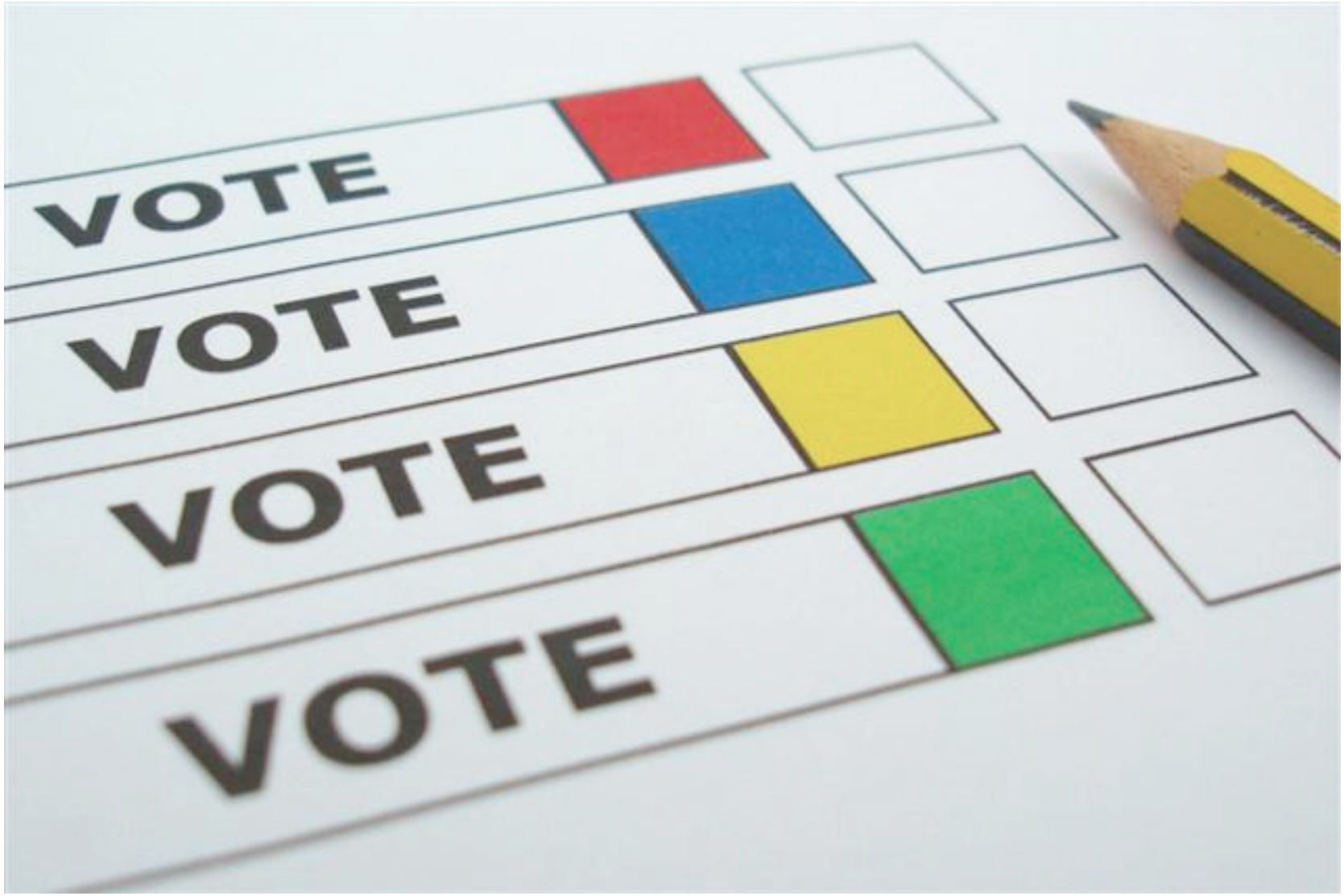


In 2009,
530 million people
used a cell phone or smartphone
to access the mobile web

Strategy Analytics, March 2010

By 2015,
that number is expected
to rise to over
ONE BILLION people
Strategy Analytics, March 2010

Soon, Mobile
will overtake
the PC as the
most popular
way to get on
to the Internet


VOTE
VOTE
VOTE
VOTE

Who here has a cell phone?

Who here doesn't have a cell phone?

Who has a smartphone?

Who accesses the Web every day using that smartphone?

What do you do on your smartphone?

How smartphone owners describe their phones

http://www.pewinternet.org/Reports/2011/Smartphones.aspx, July 11, 2011

It's not just about the phones.
It's about the experiences they have with their phones.

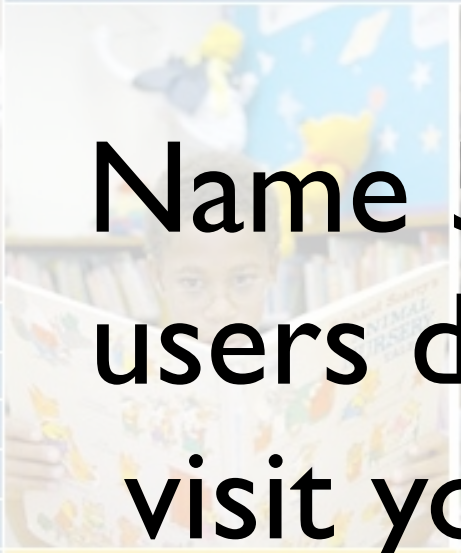
Name 5 things your users do when they visit your physical library.

Decatur Public Library

Grow
Learn
Enjoy

SEARCH THE CATALOG | RENEW BOOKS | TEXSHARE DATABASES | NEWS & EVENTS

- LOCATION & HOURS
- ABOUT THE LIBRARY
- LIBRARY SERVICES
- FOR CHILDREN
- RESEARCH & LITERACY
- READER RESOURCES
- LOCAL INFORMATION
- ASK A LIBRARIAN
- LIBRARY HOME



Name 5 things your users do when they visit your **library's website**.

Library Hours
Sunday -- Closed
Monday -- 10 am - 8 pm
Tuesday -- 10 am - 8 pm
Wednesday -- 10 am - 6 pm
Thursday -- 10 am - 8 pm
Friday -- 10 am - 6 pm
Saturday -- 10 am - 2 pm

Address

Phone
940-627-5512
Fax: 940-627-6763

Dig Up a Good Book!
Summer Reading Club
June 14 - August 2nd
See the Schedule>>

BookStock
Online Teen Summer Reading Club
Join here>>
Read about it here>>

New Ebooks and Downloadable Audio!
Learn more>>

Story Time
Wednesday at 10:00 am

Should the resources and services that are in your **physical building** and on your **website** also be offered on your **mobile website**?

Yes

No

It depends

Reference services
RSS feeds from blogs
Mobile friendly databases
Library instruction
Open access resources
SMS services
QR codes
Event calendar
Location guides or floor maps
Catalog
Research or homework guides
Social media
Videos
Augmented reality
Audio tours
Image collections
Carrier
3:00 PM
Your library website here

With so many options,
how do you begin
to plan for a mobile website?

Get to know your users

- Conduct surveys or interviews of library users who use mobile devices
- Ask in different geographic regions and cover all your demographics
- Understand their mobile habits
- Learn their device ownership trends

Ask questions

- Why does your library want a mobile presence?
- What are your peer libraries doing?
- Do you know what your users want?
- What defines success?

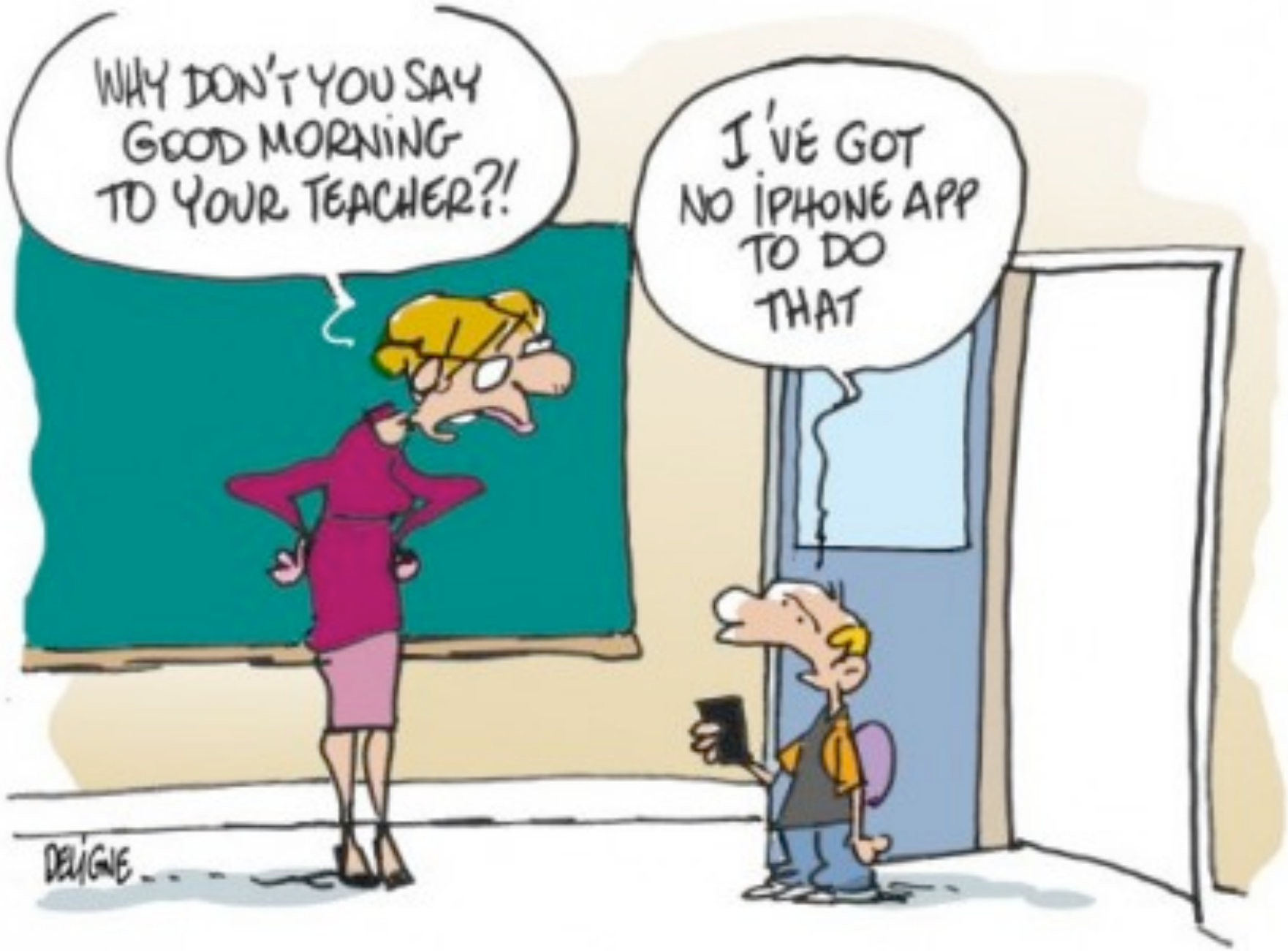
You want your users to **feel good** using the services and resources you provide on your mobile library

Which do you choose?

mobile website

or

native application


WHY DON'T YOU SAY GOOD MORNING TO YOUR TEACHER?!
I'VE GOT NO IPHONE APP TO DO THAT
DELIGNE

	Mobile Application	Mobile Website
Performance	• Runs locally, resulting in quick loading time	•Relies on the Internet, resulting in slower load and response time
Access	An app has to be developed for each platform, pushed to each platform's app store, and then downloaded to a smartphone for users to access	• Device agnostic, so only one website needs to be built • Access is through a web browser • Can be viewed on many devices, including feature phones
Supportability	• Updates are deployed through an app store that has a multi-week submission and approval process • Updates require users to download new versions	• Relatively simple to support as there are less things to go wrong on the user's device • Potential to become more complex • No interaction with an app store • Updates to server are instant for users
Application Evolvement	Mobile platforms such as Android, Apple iOS, Symbian, RIM and Windows Mobile are evolving rapidly	• HTML standards evolve more slowly

	Mobile Application	Mobile Website
Quality of User Experience	• Runs locally, resulting in quick loading time • Made for mobile so it has fluid interaction and intuitive interface • Can access sensors such as GPS and accelerometers • Can take advantage of touch screens and gestures • Can take advantage of augmented reality	• Potentially less satisfying depending on Internet connection and speed • If a mobile stylesheet is applied, users might have usability issues with access to webpages that are not mobile-friendly • With the exception of social media and games, users still prefer mobile sites over apps
Technical Risk	More risky because they can be more complex, riskier to develop and harder to test	• Less risky because site exists • A mobile version can be created by applying a mobile stylesheet or by building a simplified site
Testing	• Testing for native apps is slower and more complex if multiple platforms are supported • Testing might involve UX such as touchscreens or GPS	• Only one site has to be tested • Quality assurance and usability testing is simpler because there is less involved

	Mobile Application	Mobile Website
Cost	• More investment because it requires more resources, time and skills • Have to develop for multiple platforms	• Less investment because it's quicker and easier to build • Can support any device that has a web browser
Marketing	Thousands of mobile apps available on each platforms's store, making the audience smaller and more focused	• Users can find your mobile website via search engines, links from other websites, and links embedded in emails
Operational Issues	• Must have room on the smartphone to download	• Good cellular or wifi signal is required
Skill Set	• Application development demands more sophisticated skills • Developers with these skills are harder to find	• Knowledge of HTML and CSS for basic mobile theming • Skills in HTML5 and PHP are useful for creating more engaging websites, but not all smartphone browsers support HTML5 yet

Which is best for **your** library?

Mobile Website

Mobile Application

Both

Neither

Hybrid

You know what's on your website

You know the needs of your users

You know what tech skills you have available to you

You know the limitations of your library's wifi

Let’s dig in!

Options for building mobile native **apps**

- Native platform SDK (software development kit)
- General purpose multi-platform tools - attempts to "write once, run anywhere"
- Outsource the development, or hire a developer with mobile app development experience on each platform you want to create

android developers

Options for building mobile **websites**

- Develop a mobile CSS
- Do nothing - users will still see your site, but it won't be optimized for the best mobile user experience
- Google sites - mobile templates
  - http://sites.google.com/mobilize
- Have an open-source cms like Wordpress or Drupal that power your website? Find a mobile friendly theme

Google sites

Mobilize your business

Your customers are mobile; how about you? With Google Sites, you can build a professional mobile landing page in just minutes.

1 Choose template:

Restaurant | Local Business | Lead Generation | **Social** | eCommerce | Custom

The **social** mobile template lets people engage socially with your business. Simply adding the social button links your mobile site to Facebook, Twitter, LinkedIn and YouTube. Learn more …

2 Select color:

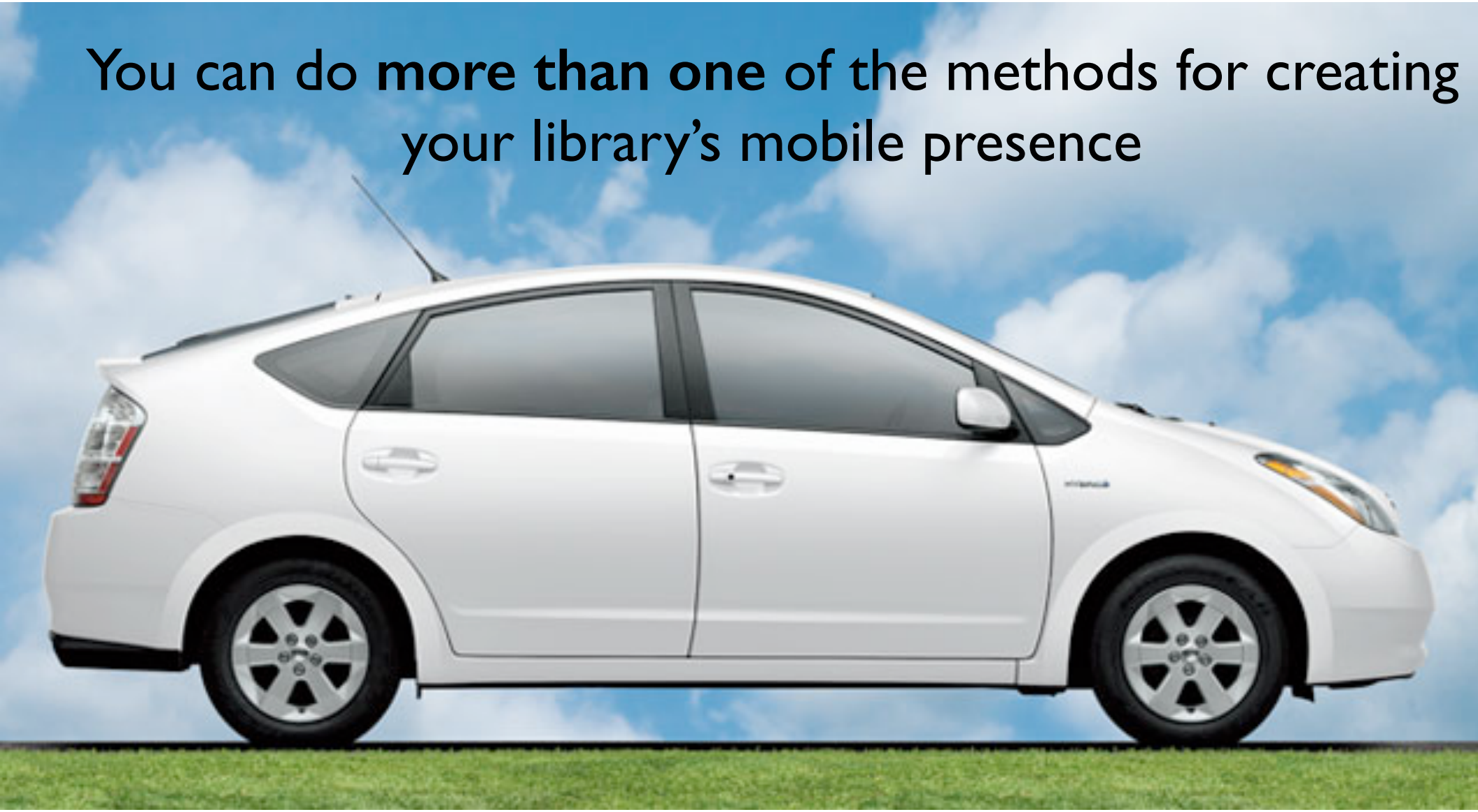
Try this template

Options for building mobile **websites**

- Mobile application tool with web capability
  - Completely home-grown approach
- JavaScript framework and code libraries
  - jQuery Mobile, iUI, jQtouch, iWebKit
- Use Chad Haefele's Mobile Site Generator
  - http://www.hiddenpeanuts.com/msg/

Hybrid Approach

You can do **more than one** of the methods for creating your library's mobile presence

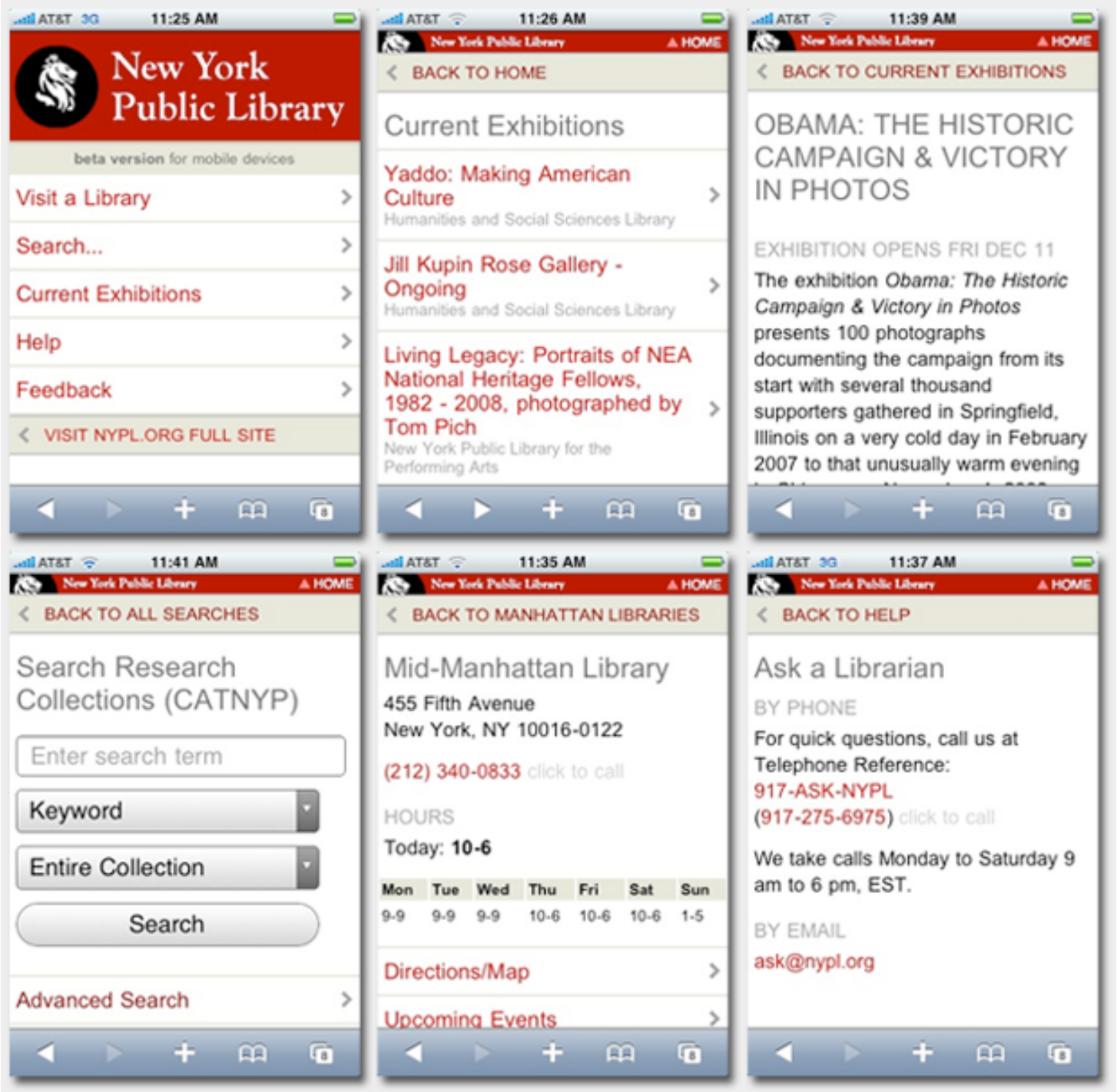


Managing your mobile site

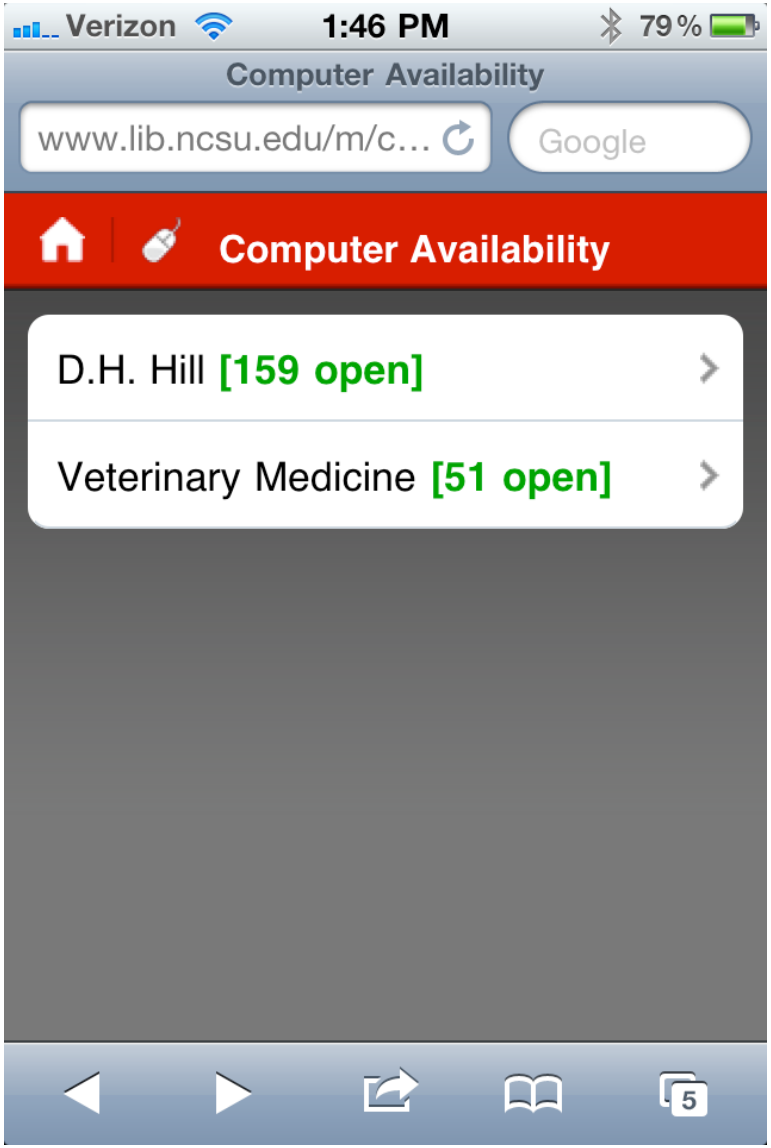
- Design & Functionality
  - Can be determined by the stylesheet or the framework chosen
  - Keep your branding consistent
- Content
  - Have a strategy for maintaining the content
  - Pull in content from other systems if you can (RSS feeds, APIs, etc.)

Examples of mobile library **websites** and **applications**

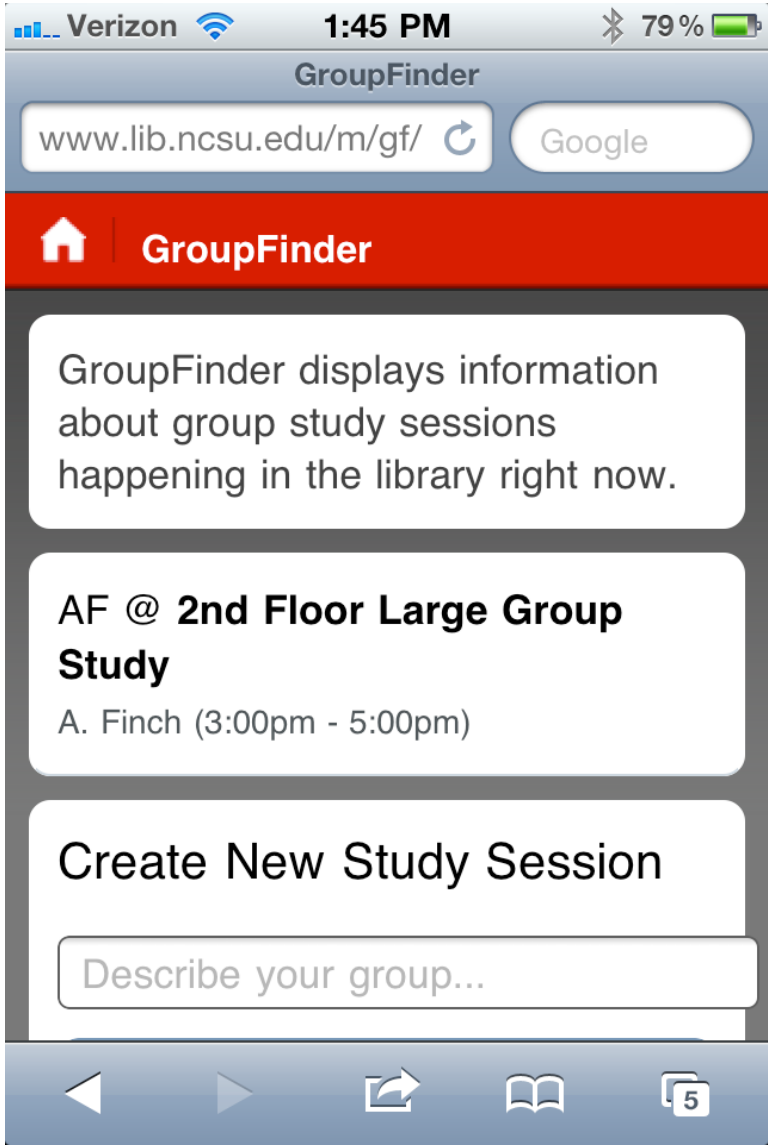
New York Public Library



NCSU Libraries

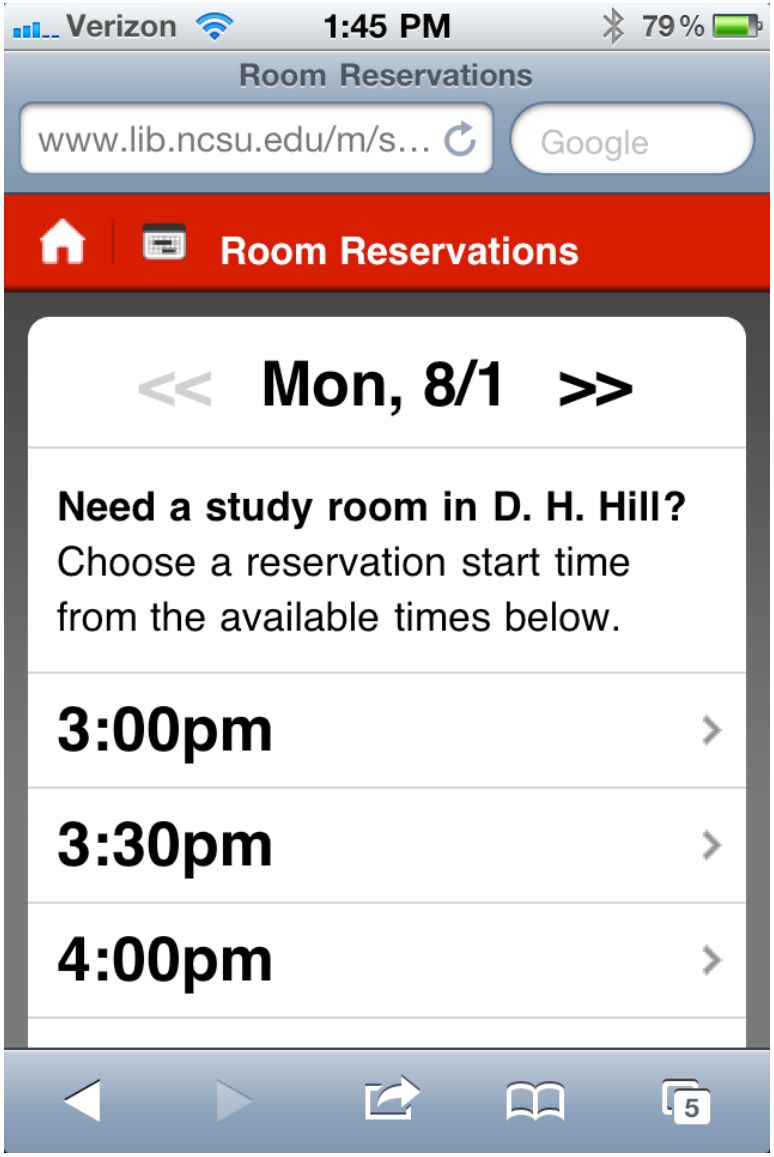


Computer Availability

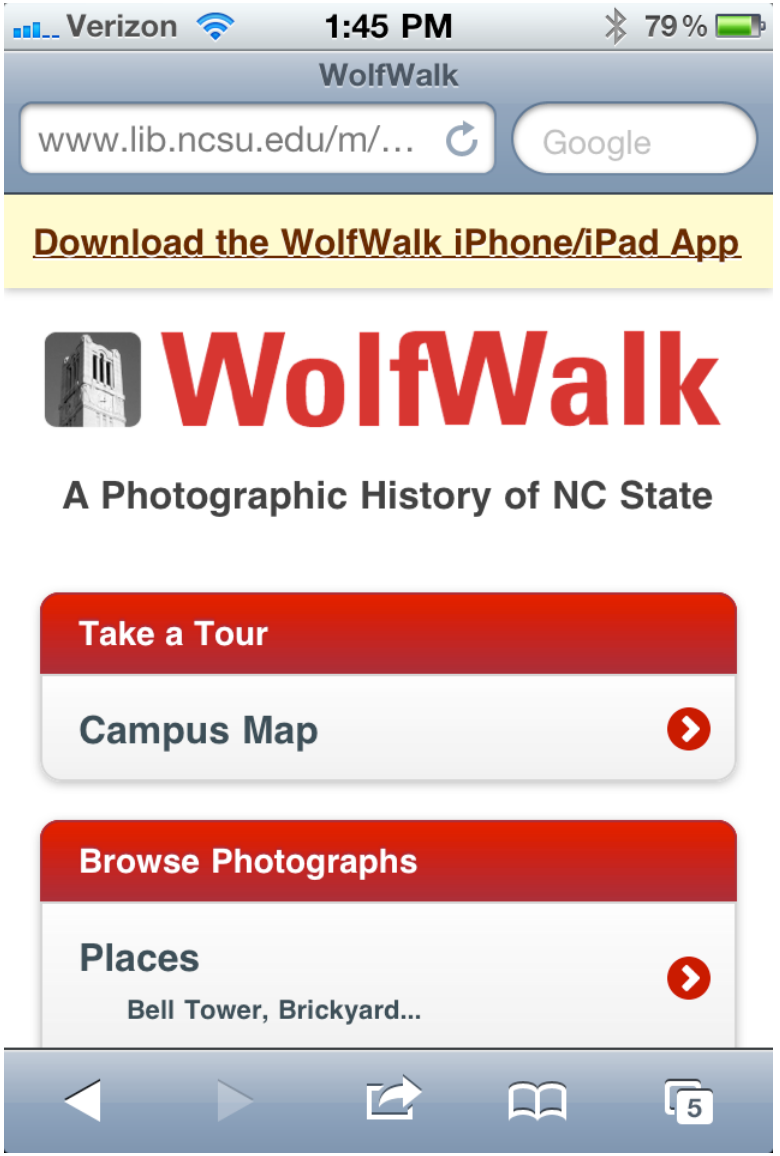


Find your study group

NCSU Libraries



Reserve a room



Historic image collections

Seattle Public Library

SPL MOBILE APP

Can I use the Library from my smart phone or other Web-enabled mobile device?
Yes. The Library has a free mobile application (app). Access your Library account, find the nearest branch, search the catalog and browse for books, CDs and DVDs while on the go!

Will it work on my phone?
The app works on all major smart phones, including iPhone, Android, Blackberry, Windows Mobile, Palm, Symbian and J2ME.

How do I get the app?
To download the app for:

- Most devices - Visit spl.boopsie.com on your mobile device or scan the QR code on the right
- iPhones - Visit the iTunes App Store. Search for "SPL Mobile"
- Android Phones - Visit the Android Market. Search for "SPL Mobile"
- Windows Mobile - Visit spl.boopsie.com/webapp

The app is free from any source.

What does it do?

- Smart prefix search - Enter the first few letters of a word or phrase to search the catalog. For example, entering "ha pot g" into the search box finds "Harry Potter and the Goblet of Fire"
- Search the Library's Calendar - For upcoming events and classes
- Library locator - All Library locations include links to an interactive map
- Ask a Librarian - by IM, text message or phone
- Check your account - Reserve and renew books, CDs and DVDs
- Download Library podcasts - Featuring your favorite authors
- Stay connected - With links to the Library's blogs and Facebook page

LEARN ABOUT OUR MOBILE APP.

- Watch our video!

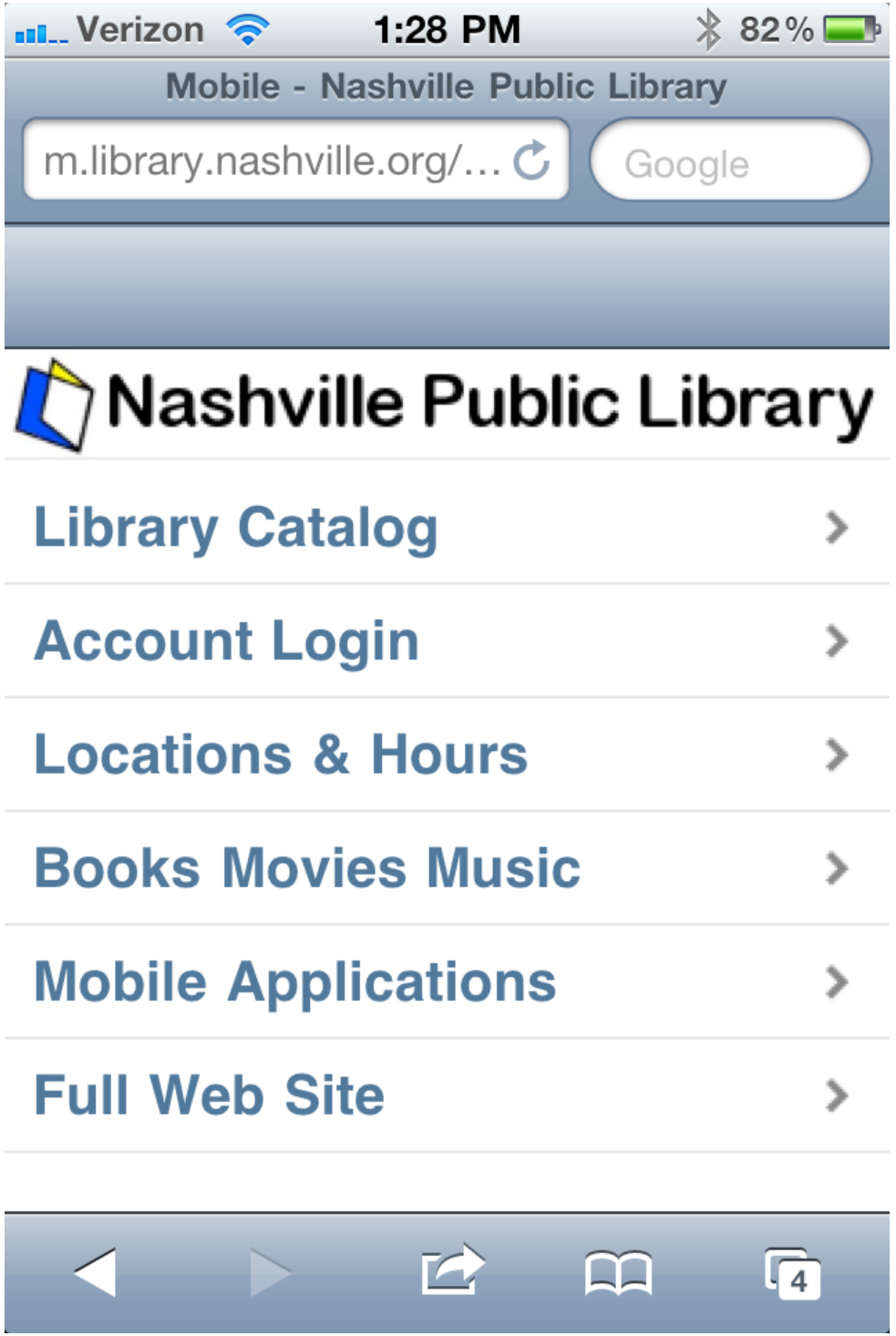
Need help? Ask us!

Your Question/Message

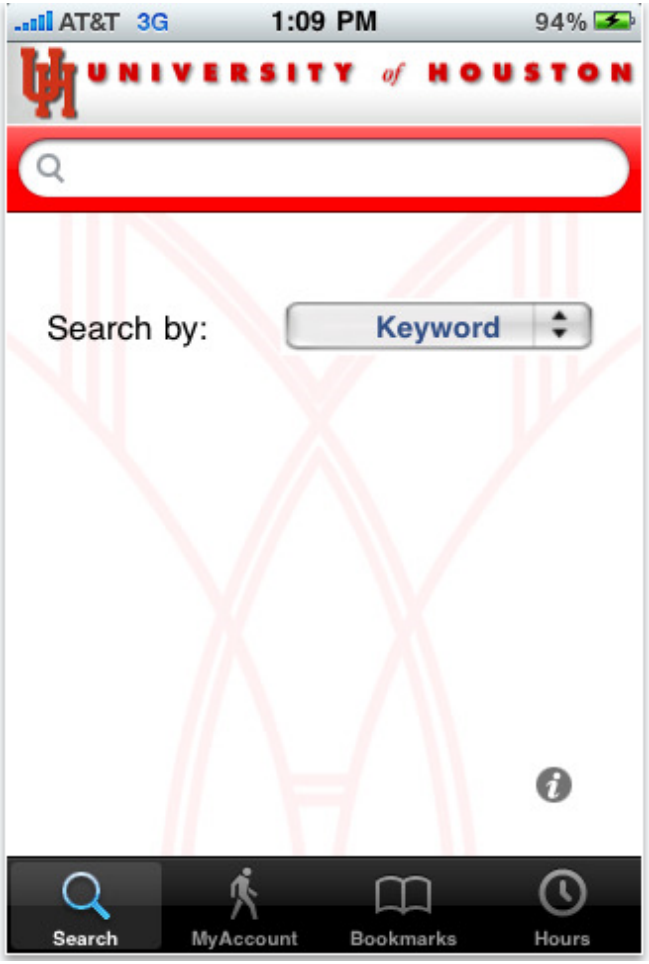
Send

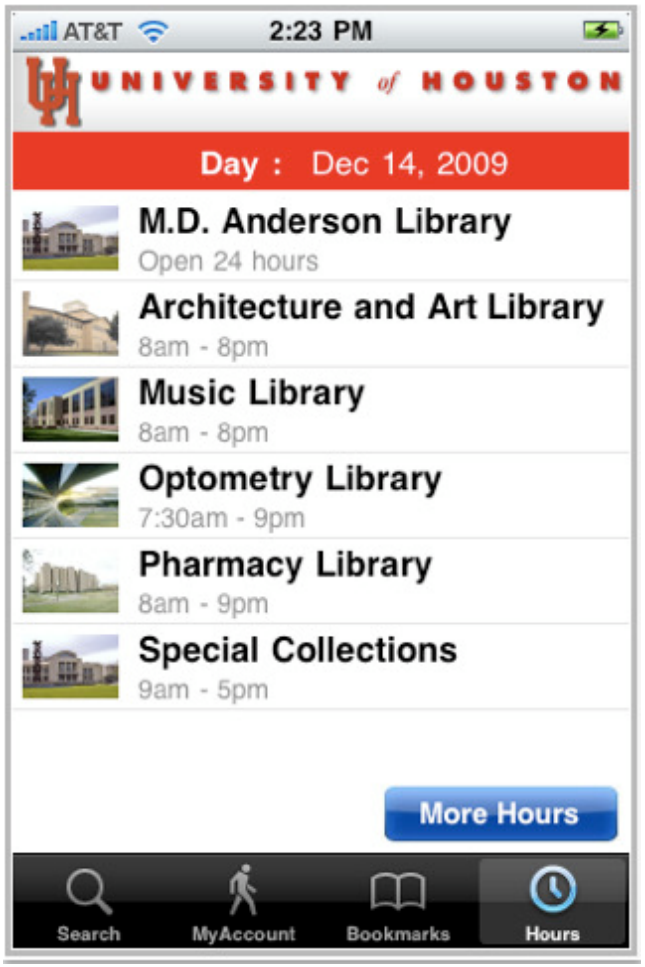
Nashville Public Library

They have a mobile website, but it includes links to device specific apps



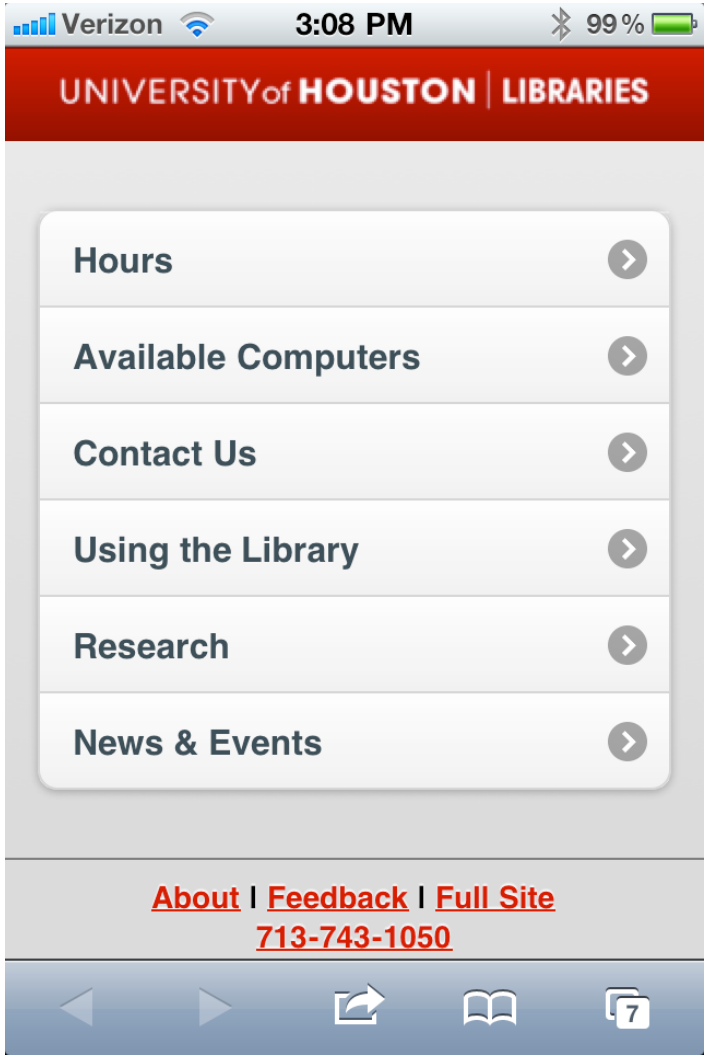
UH Libraries
Mobile Web Presence



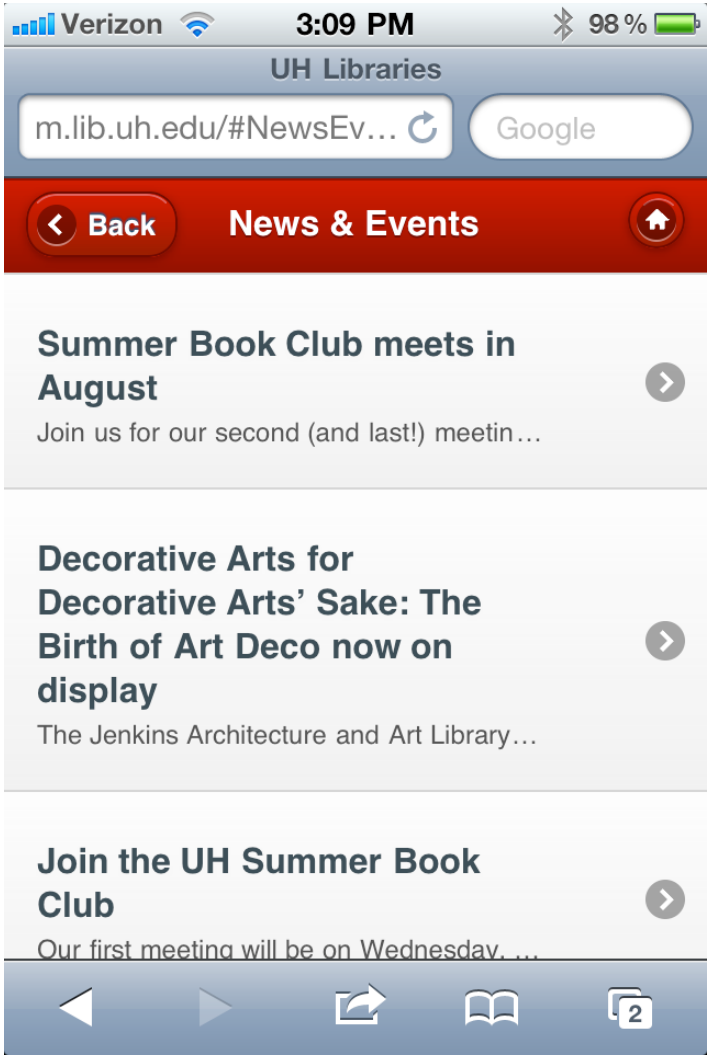


An iPhone app for searching the UH Libraries' Catalog was developed by graduate students in the the "Ubiquitous Computing" course in the University of Houston Computational Physiology Lab

UH Libraries - Mobile Website - m.lib.uh.edu

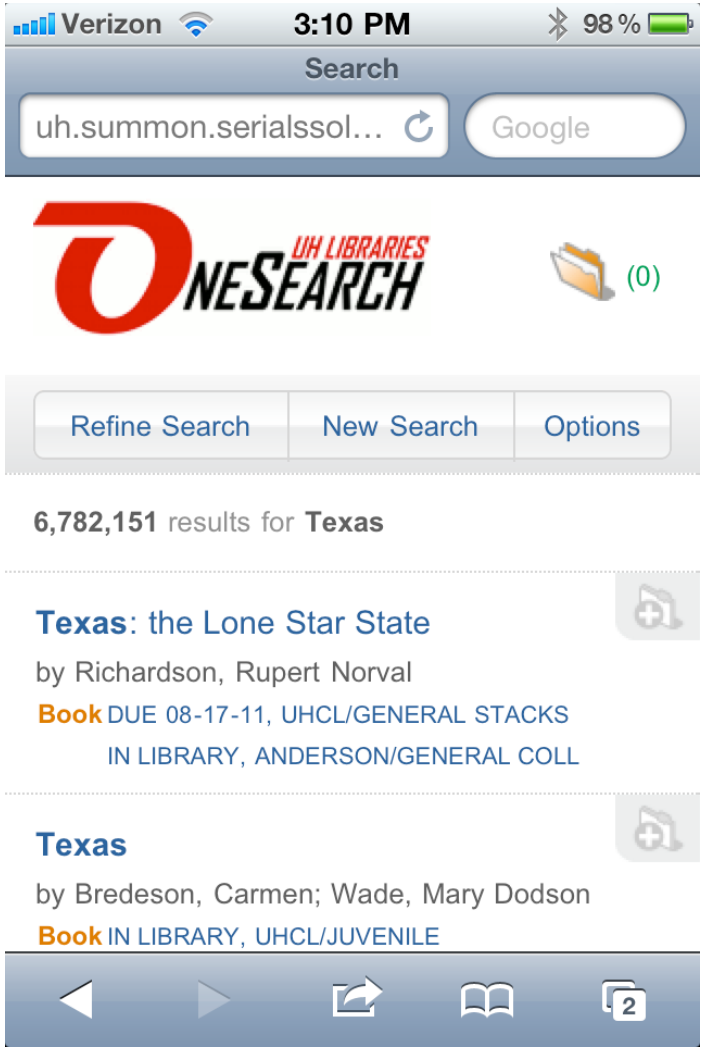


Think differently about the hierarchy of your homepage

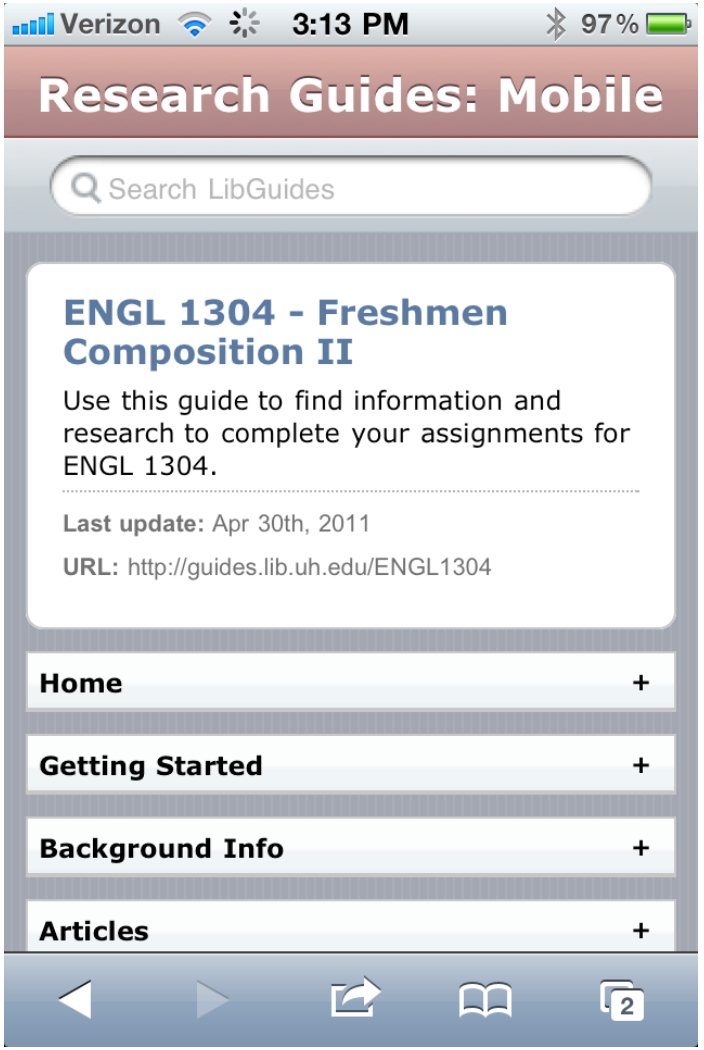


RSS feeds are quick and easy but have limitations

UH Libraries

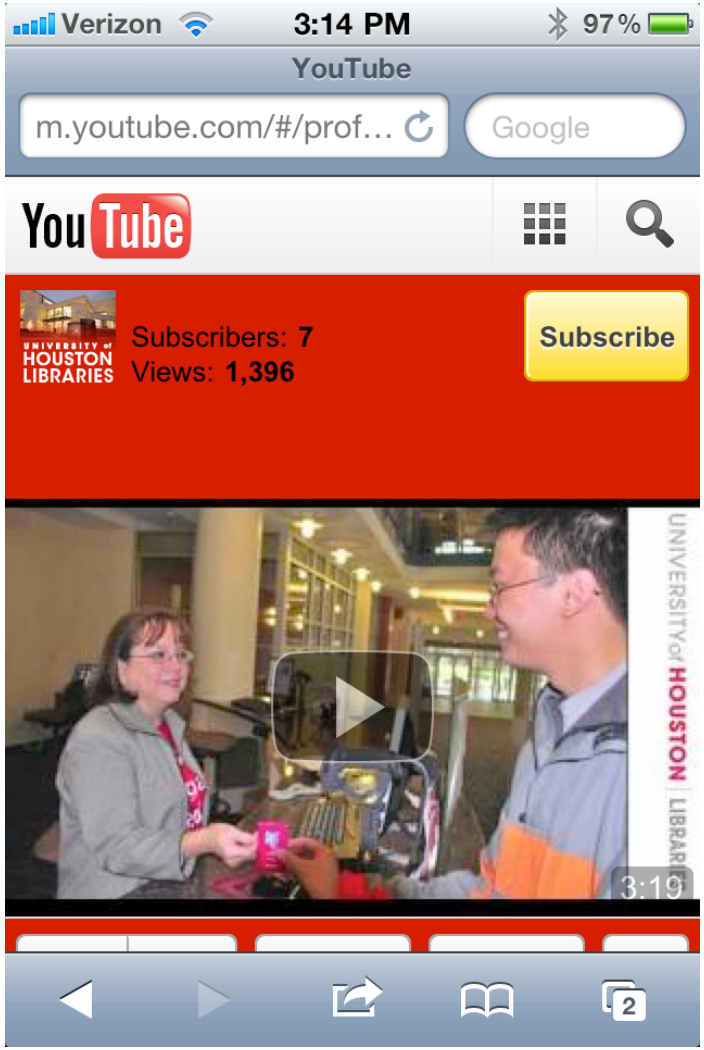


Include catalog and/or discovery platform, but be clear on tool's purpose

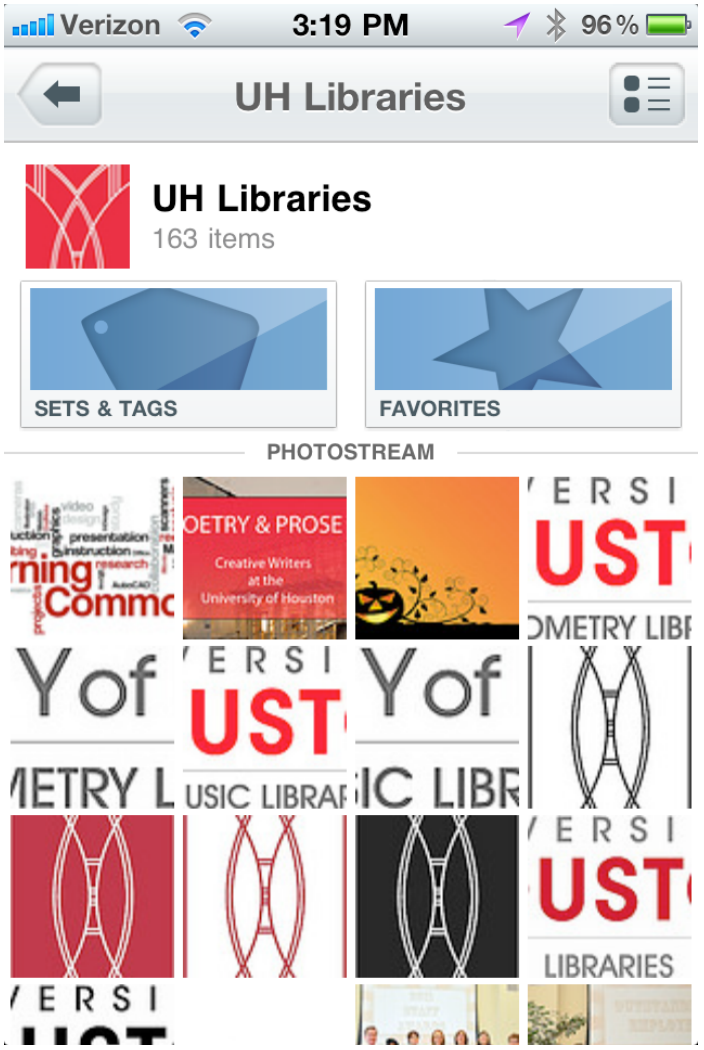


LibGuides comes with a mobile interface, too

UH Libraries



You have videos? Create a channel and include them



Show off your images on your library's Flickr site

Features we're considering

- Mobile campus walking tour with historic images pulled from our Digital Library collection
- Mobile version of the Digital Library
- Expanded computer availability to other labs in the library, possibly branches
- Laptops available for checkout
- Room/computer reservation
- More social media integration
- QR code with physical exhibits that take users to audio, video, or a webpage
- Augmented reality layar

Reference services
RSS feeds from blogs
Mobile friendly databases
Library instruction
Open access resources
SMS services
QR codes
Event calendar
Location guides or floor maps
Catalog
Research or homework guides
Social media
Videos
Augmented reality
Audio tours
Image collections
Carrier
3:00 PM
Your library website here

Final thoughts

- Understand your users mobile behaviors and needs before you decide between a mobile app or website
- Sometimes a simple mobile stylesheet is a good enough place to start
- Don’t just recreate your entire website in a whole new mobile website
- Start small, add more complex features over time
- Walk a day in your users’ shoes to get a feel for

Resources

"Choosing Between Native and Mobile Web Applications." Gartner Report by Analyst Nick Jones. February 23, 2011.

M-Libraries, Library Success Wiki - http://www.libsuccess.org/index.php?title=M-Libraries

Chad Haefele's Mobile Site Generator - http://www.hiddenpeanuts.com/msg/

Google Mobile Sites - http://sites.google.com/mobilize

Thanks!

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Presentation available online:
slideshare.net/vacekrae