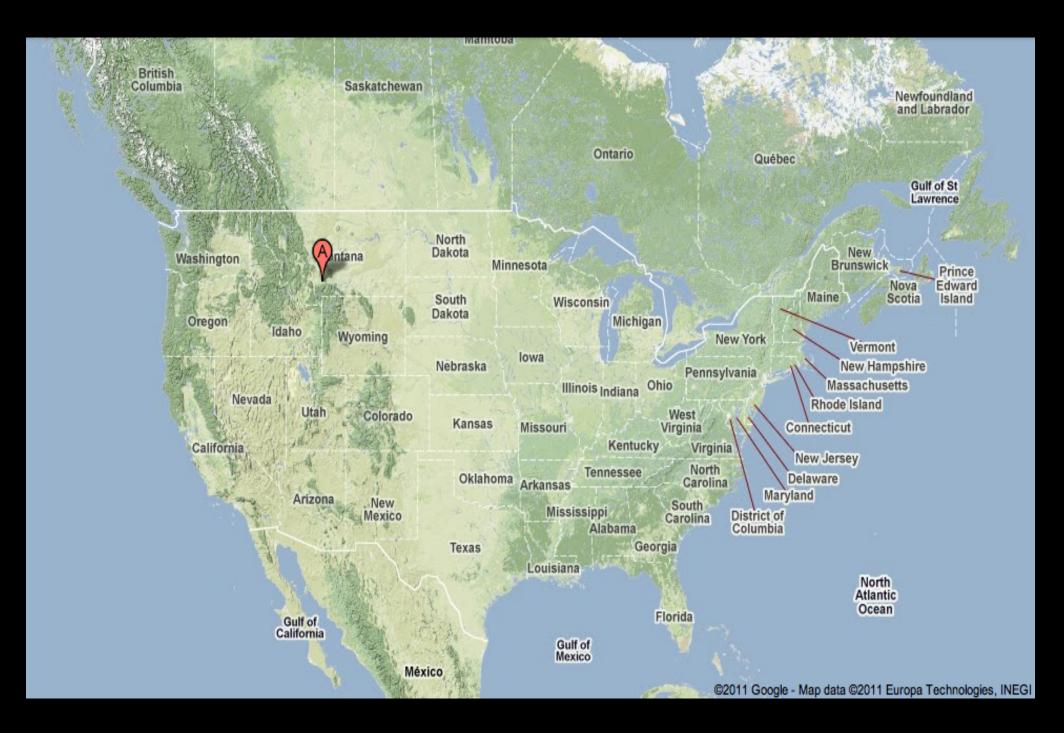
# Where are You? Surveying and Building LocationAware Library Apps

Jason Clark
Head of Library Informatics & Computing
Montana State University Library

Florida Library Webinars Novare Library Services April 30, 2014



## Twitter #hashtag

#libgeoapp

## pinboard.in URL (get links)

pinboard.in/u:jasonclark/t:libgeoapp

#### Overview

- Does location matter?
- Library Apps and Demos
- Getting Started
- Questions

## "Content is King"

What?

## "Context is King"

For Real?

# "About half of the queries on Google have a geographic component."

"74% of adult smartphone owners ages 18 and older say they use their phone to get directions or other information based on their current location."

## Location is a metric for interest.

Can libraries apply this?

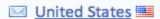
## Temporality is a metric for interest.

Can libraries use presence?



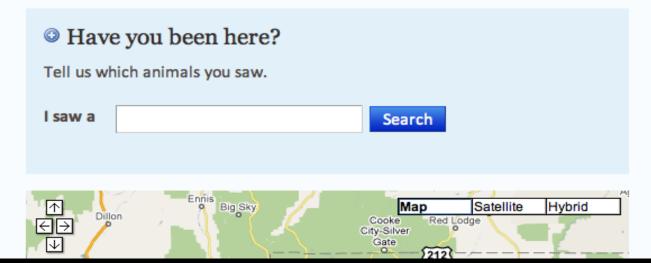
#### Yellowstone Park

#### General information



#### Animals you might see



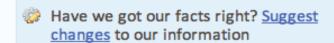


#### Average rating

Based on ratings of 1 trip by 1 spotter.



Have you been here? Why not add your trip?



#### **Photos**



## Library Applications

- Mapping Data
- Check-in Services
- Crowdsourcing Geo Information
- Local Interest Apps

## Mapping Data

- Montana State University Research Locations
- UNC Digital Collections Map Browse
  - www.lib.unc.edu/dc/geobrowse/
- TAMU Geological Atlas, United States
  - repository.tamu.edu/handle/1969.1/2490

Geography becomes a browse point

Contact Us | 
 XML feed

MSU Filmmaking School Student Videos, Films, and Broadcasts Publication Locations

© Montana State University Library



#### Check-in Services

- Darien Library (Connecticut)
- Enoch Pratt Free Library (Maryland)
- US National Archives
  - foursquare.com/usnatarchives

Participate and get badges or gifts

My Account Catalog Events Services Research Kids Teens Community

Search here...

catalog: everything

Home » Check in @ the Darien Library on foursquare

#### **Darien Library**

- Home
- Search this site
- Site map
- Talk to a librarian
- Log in

#### Children

- ▼ First Five Years
  - Early Literacy
- Kids
  - Booklists
  - Homework Help
  - Links
- for Grownups
  - Parents
  - Teachers

#### Check in @ the Darien Library on foursquare o

Written by kiones on 02/25/2010

From the Darien post office to your grocery store of choice to, of course, the Darien Library, there's a lot of places you visit in a day. What if you recorded - *checked in* - where you went daily on your mobile phone and what if you were given points for those visits? Sounds like the making of an interesting game...

That's the exact premise behind the online game foursquare!

Play along with your fellow community members to see what places are of interest in the area. When you check in other folks may have left tips for you at different locations - called venues. The library staff has put together a nice list of things to check out while in the library at our venue on foursquare.



The more you check in, the more points you get. Check in enough times and become mayor of that location! If you become mayor of Darien Library please stop by the Welcome Desk and speak to Erica Leone to claim your very own Darien Library tote bag (a \$25 dollar value)!

One bag per mayor please:)

Login or register to post comments

Technology General Information Research Teens



Darien Library, 1441 Post Road, Darien, Connecticut, 06820-5419 · 203-655-1234

Directions and Contact Information. Twitter: darienlibrary. AIM & Y!M: deweydarien.

#### **Teens**

- ▼ Teens
  - Click!

### Crowdsourcing Geo

- New York Public Library
  - maps.nypl.org

Historical Overlays
Help us create better geographic data

**Browse All Maps** 

**Browse Rectified Maps** 

**Browse All Layers** 

#### How to use this tool



The NYPL Map Rectifier is a tool for digitally aligning ("rectifying") historical maps from the NYPL's collections to match today's precise maps. Visitors can browse already rectified maps or assist the NYPL by aligning a map. Play the video above to tour the site and learn how to rectify a map yourself.

Everyone is welcome to participate!



#### Most Recently Rectified Maps

Мар	Title	Last modified	Status
	Part of the Borough of Queens, Flushing, Ward 3.  from Atlas of the city of New York, borough of Queens, Long Island City, Newtown, Flushing, Jamaica, Far Rockaway, from actual surveys and official plans / by George W. and Walter S. Bromley. (In 2 layers) Depicts: 1909	about 5 hours ago.	7 control points.
	View Map   Edit/Rectify Map   Download KML  Bibiliographic records: Digital Gallery   CATNYP		
	Part of the Borough of Queens, Flushing, Ward 3.  from Atlas of the city of New York, borough of Queens, Long Island City, Newtown, Flushing, Jamaica, Far Rockaway, from actual surveys and official plans / by George W. and Walter S. Bromley. (In 2 layers) Depicts: 1909  View Map   Edit/Rectify Map   Download KML  Bibiliographic records: Digital Gallery   CATNYP	about 5 hours ago.	6 control points.
	Part of the Borough of Queens, Flushing, Ward 3.  from Atlas of the city of New York, borough of Queens, Long Island City, Newtown, Flushing, Jamaica, Far Rockaway, from actual surveys and official plans / by George W. and Walter S. Bromley. (In 2 layers) Depicts: 1909  View Map   Edit/Rectify Map   Download KML	about 5 hours ago.	4 control points.
	Bibiliographic records: Digital Gallery   CATNYP		

More Rectified Maps...

## Local Interest Apps

- NCSU Wolf Walk
- San Jose Public Library
  - Augmented Reality Historical Walking Tours (in beta...)

Location-based Learning Opportunities

#### WolfWalk

#### Explore NC State history right on your phone

WolfWalk allows you to explore North Carolina State University's campus history on your phone. WolfWalk has information on 90 different sites on campus, with images that trace the site's history, courtesy of the NCSU Libraries Special Collections Research Center. WolfWalk will also show you information about the sites closest to you, depending on the capabilities of your phone.





#### Send WolfWalk to my phone



999-999-9999

Send Text Message

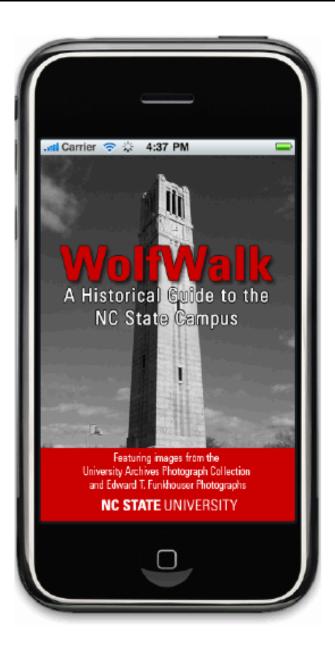
We will not store or share your number. Sending messages is free, but your mobile provider may charge you to receive messages. Please check with your provider for details.

#### Need support? Have a suggestion for us?

If you have any questions about WolfWalk or have suggestions for us, send a message to wolfwalk@lists.ncsu.edu.

#### Explore more NC State history

To find out more about NC State's history, visit Historical State. Historical State is the home of our comprehensive catalog of historical images of NC State, and contains all of the images used in WolfWalk. Historical State also features course catalogs, and a near-complete run of the *Agromeck*, NC State's yearbook.



## Geolocation (options)

- w3c Geolocation API
  - accurate
  - supported in Firefox 3.6, Safari 4
  - Javascript functionality
- Yahoo Query Language Location Tables
  - Web Services, REST API
  - Server-side and/or Client-side scripting

These are just two of the options...

## Getting Started

- Choose data with location interest
- Record latitude/longitude
- "Reverse Geocode" to get text values
  - code.google.com/apis/maps/documentation/geocoding/#ReverseGeocoding

## Going Offline

- HTML5 Offline Database Storage
  - www.html5rocks.com/features/offline
- HTML5 Local Session Storage
- Record values in physical QR codes
- HTML5 Local caching cache manifest file
- Download GeoNames Datasets
  - www.geonames.org

## BooksnStuffNearby

A Beta App

http://www.google.com/search?q=jason+clark+code

## HTML5 Geolocation API, Worldcat Search API, Forecast.io API, etc.

Building blocks for a service

#### Resources

- Symposium on Location-Based Services
  - www.lbs2014.org
- Journal of Location-Based Services
  - www.tandfonline.com/loi/tlbs20
- Geolocation API diveintohtml5
  - diveintohtml5.org/geolocation.html
- Leaflet.js Javascript Geo/Mapping Library
  - leafletjs.com

## Code Examples

- Google Static Maps + Geolocation
  - www.lib.montana.edu/~jason/files/webservices/google-static-maps-geolocate.html
- OCLC MapFast Subject Headings
  - www.lib.montana.edu/~jason/files/webservices/html5-geolocation-mapfast.html
- re:This Place (aka BooksnStuffNearby)
  - www.lib.montana.edu/~jason/files/geolocate/

## pinboard.in URL (get links)

pinboard.in/u:jasonclark/t:libgeoapp

## Questions?

twitter.com/jaclark www.jasonclark.info