Mashups with the Google Maps API
Part I

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April 20, 2009

Abstract

After studying some specific instances of map-based mashups, we will study the basics of the Google Maps API and the process of geocoding.
Flow for next two days

- Google maps are what I loosely refer to as an "Ajax widget" -- a JavaScript library which allows you to embed an interactive GUI element -- interactive in the sense of letting users do stuff and interactive in the sense of exchanging data with a server.
- We will look at some basic concepts around maps: notion of latitude and longitude, points, lines, polygons.
- KML (and GeoRSS?) as a geo-exchange format -- remember XML?
- geocoding and geocoding APIs -- to illustrate web services

HousingMaps

- Paul Rademacher created [http://housingmaps.com](http://housingmaps.com) (Craigslist + Google Maps) in 2005 before the Google Maps API.
Many, many more map-based mashups

- http://googlemapsmania.blogspot.com/

What You Learned Earlier in Course

- GeoRSS: http://dret.net/lectures/web-spring09/georss
- KML: http://dret.net/lectures/web-spring09/kml
What we will build this week

• What we want to learn this week (in the lectures and in the lab) is to create your own Google Map using the API that will bring in:
  – The map you made with Google My Maps
  – Some geotagged photos from Flickr

Google Maps API: Getting started

• Signing up for a Google maps API key and copy and paste to make a map
Getting Your API Key

• Besides reading and agreeing to the ToS, you will need to know what directory you’ll be hosting your map.

• For [http://people.ischool.berkeley.edu/~rdhyee/web-spring09/](http://people.ischool.berkeley.edu/~rdhyee/web-spring09/) the key is

ABQIAAAAAdjIS7YH6Pzk2Nrl02b5xxS5KcFUklaUUb m4gGX5FAKX9- MkPxQU_X81udCu4ldS1IpugvFUzUm2OQ

• Remember your own key....

Create a “Hello World” example


• See, e.g., [http://people.ischool.berkeley.edu/~rdhyee/web-spring09/helloworld.html](http://bit.ly/3lwGT)
Change Center, Size, Zoom of Map

• Pick an address (in the USA, to make things easier) to place at the center of map
• Find the latitude and longitude of the address – e.g., 1600 Pennsylvania Ave:
  http://geocoder.us/demo.cgi?address=1600+Pennsylvania+Ave%2C+Washington%2C+DC

Geocoder.us returns: (38.898748, -77.037684) – means N 38° 53' 55.5" and W 77° 2' 15.7"

See Whitehouse map

• http://people.ischool.berkeley.edu/~rdhyee/web-spring09/whitehouse.html