Random notes from meeting with Joey, and then discussion with Chris last night.

**Joey**

Class Discussions: feedback important, break down barriers.

Take away competition, have students work together in teams as Joey/Jay leads them through exercise.

Ben Fry data visualization: (Joey had a pdf of this book)

First chapter – data mining zip codes, lat long, how to get them, tables, prompt them – google, problems to solve – error and data integrity

Teach students: Data munging, data wrangling, mashing is 70-90 % of the issue – Learning Objective (LO)?

Teach students: Data formats – LO?

Terminology:

API

CSV

Json

Geojson

Html

Java scripting

= section of course on HOW TO – what is geo data, how to munge, eg converting CSV to shape file.

Example

modo car co-op – open API – search form line that gets car locations

Copy the locations, json file, make something of the file….

Another of Joey’s projects:

Web scraping – I saw you from Georgia Straight – 22 bus – vector, coordinates – what is the relationship to time. When – what seasons, ethics, neo-geography, role of geographers to be conscious of social implications versus just building things.

Ideas for projects for our students:

Drone sites api , Drone stream

‘You should be hungry to work with this. ‘

Again.. Terms of use for this data.

Start thinking about ways you can get data

Final project – tell me about drone sites. Use openstreet map, drone api,

Story maps?

Dear data site, critical assignment on spatial data sets, neo-geography, data integrity, etc.

Blog for resources

LO open source – R

Gdal cheat sheet.

Eprotfolio

Github – versioning control. Documentation, metadata, you have to write a readme

Markdown – mou mac -

Joey’s tile mill

Lizzie Diamond. Good post on how to teach GIS

FOSS 4G

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**Discussion with Chris last night**

There are Producers of data and consumers of data.

json – applications to consume the data

What re terms of use? Not all data you can access you would be allowed to use for a 472 project

Location data like modo - someone has produced, how do we get students help consuming it? Build a web page that has java script in it – goes out to get that information – to google maps, modo for car locations, puts them together on one page = **mashup**.

Process:

1. Find data that has some kind of coordinates, some sort of attributes some data format.

* **json**: java script object notation; Use **json** to communicate data.
* **csv** : comma separated values – another data format
* both meant to be processed by **java script** (html – hyper text markup language – structures content so a web browser understands it.. making dynamic behaviour in your browser) . Eg. Go and talk to a server, do display web browser – event driven (button clicks, typing)
* Google maps, gmail all about java script. **AJAX** – asynchronous java script execution
* Terms of use?

1. Write code (**javascript**) to work with data:
   1. Get other data such as reference data from openstreetmap or google maps or bing
   2. Write an html page that had within it some javascript to go and get google reference data (google api) and go and get the json modo file
   3. Use python (groovy…) to retrieve jsno info from server (modo) strip off info you did not want, write to csv, convert to excel, convert to shape file.

**OUR STUDENTS CANNOT DO THIS AND WE CANNOT TEACH THEM THIS IN A COURSE SUCH AS 472** solution – use Tilemill and Mapbox which is essentially Dreamweaver for web mapping. Building a menu driven tool around programming.

1. Display = Web map – google base with pins on map from modo json file / ArcGIS shapefile.
2. We reviewed Joey’s tutorials on his github page – similar to tilemill mapbox lab – Chris feels this is doable – as he explained to me, mapbox and tilemill is basically Dreamweaver for html coding.