



Join at
slido.com
#ucla

Web Development and GIS for Social Change

Critical Data for Transforming Civil Society

Albert S. Kochaphum

Week 1 | March 28th, 2022

Please fill in the survey

- ① Start presenting to display the poll results on this slide.

How are you feeling?



Meh
intrigued
Alright
motivated
burnt out
excited
headache
hopeful
neutral
Exhausted

Today's Agenda

Wrap-up

Introductions

Course details

Lecture

Discussion



Introductions



About me!

GIS + code = ftw

bikeclist

can we haz
more social equity?

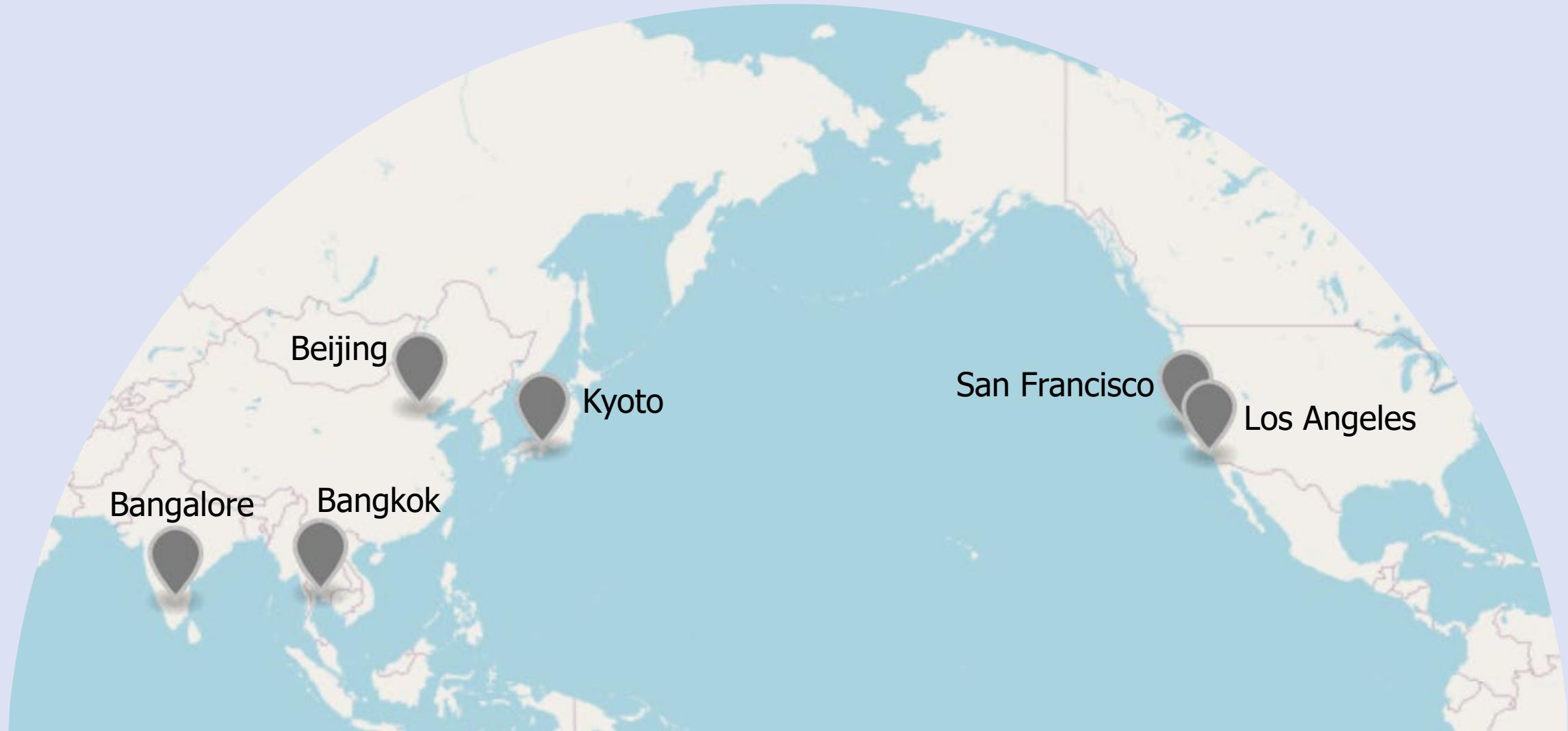
made in san francisco

omg, climate change :(

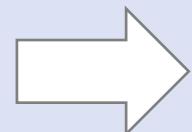
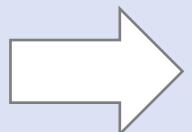
wow! Much tarrible puns

noob @ game dev

About me person**AL**ly



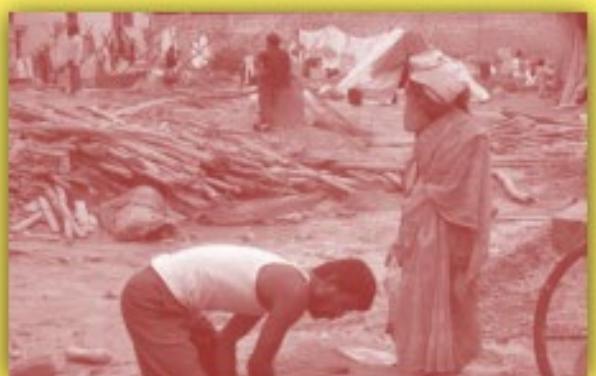
About me “profession~~AL~~ly”



wHAT that really means is...



I wear many HATs









Jane Map

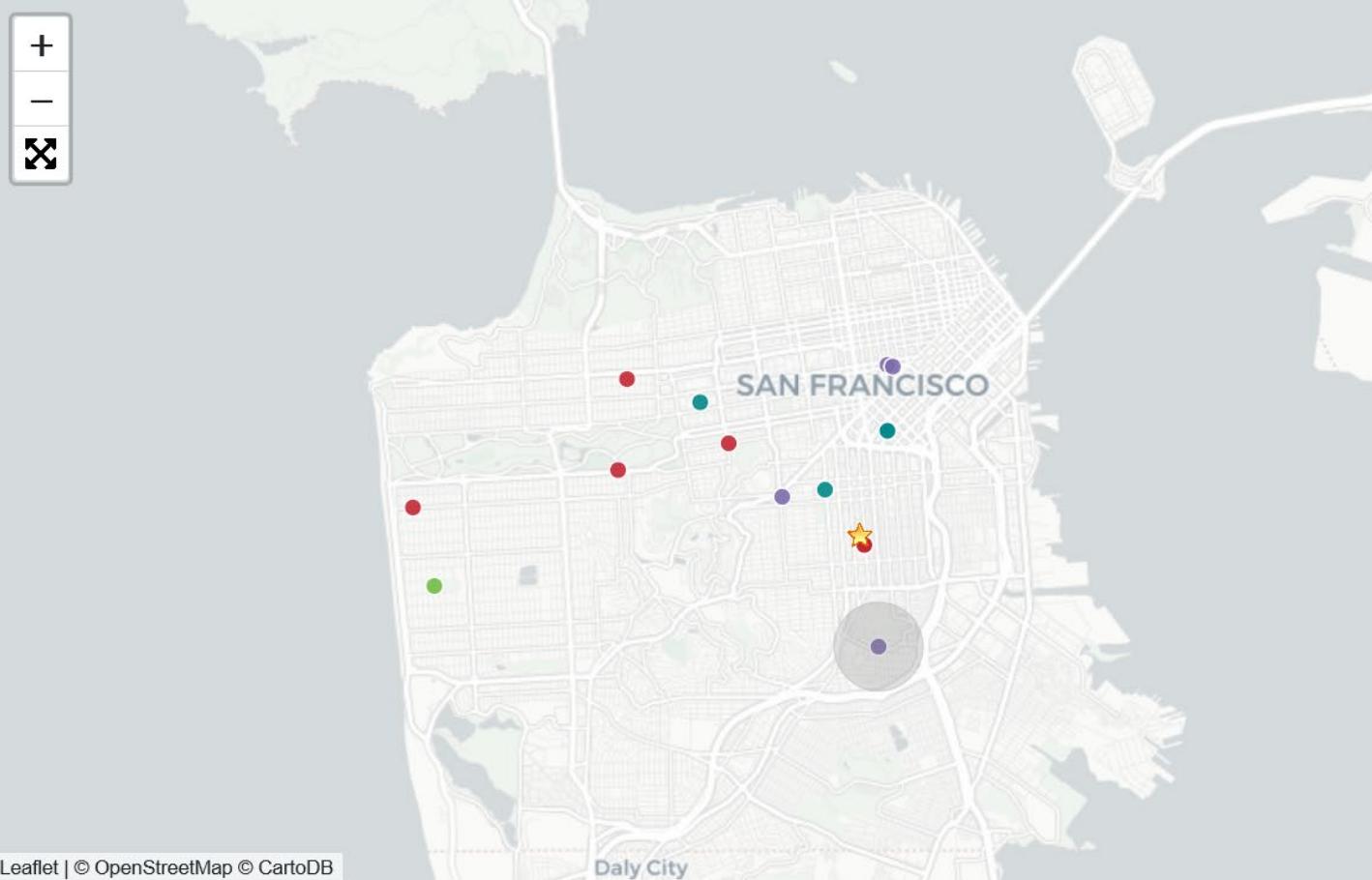
Let's get started on electing a progressive mayor for San Francisco.

f Share

t Tweet

Reddit

Host an Event



Search

BY ZIPCODE

SORT BY

ENTER ZIPCODE

Date Distance

Hide Filters

FILTER BY TYPE

Campaign Office

Canvassing

Meet

Forum

House Party

Mar 15 (Thu) 7:15 PM to 8:30 PM

[Bernal Heights Democratic Club Forum](#)

Forum

See Jane at the forum!

Hosted by [Bernal Heights Democratic Club](#) 515 Cortland Ave.
San Francisco, CA

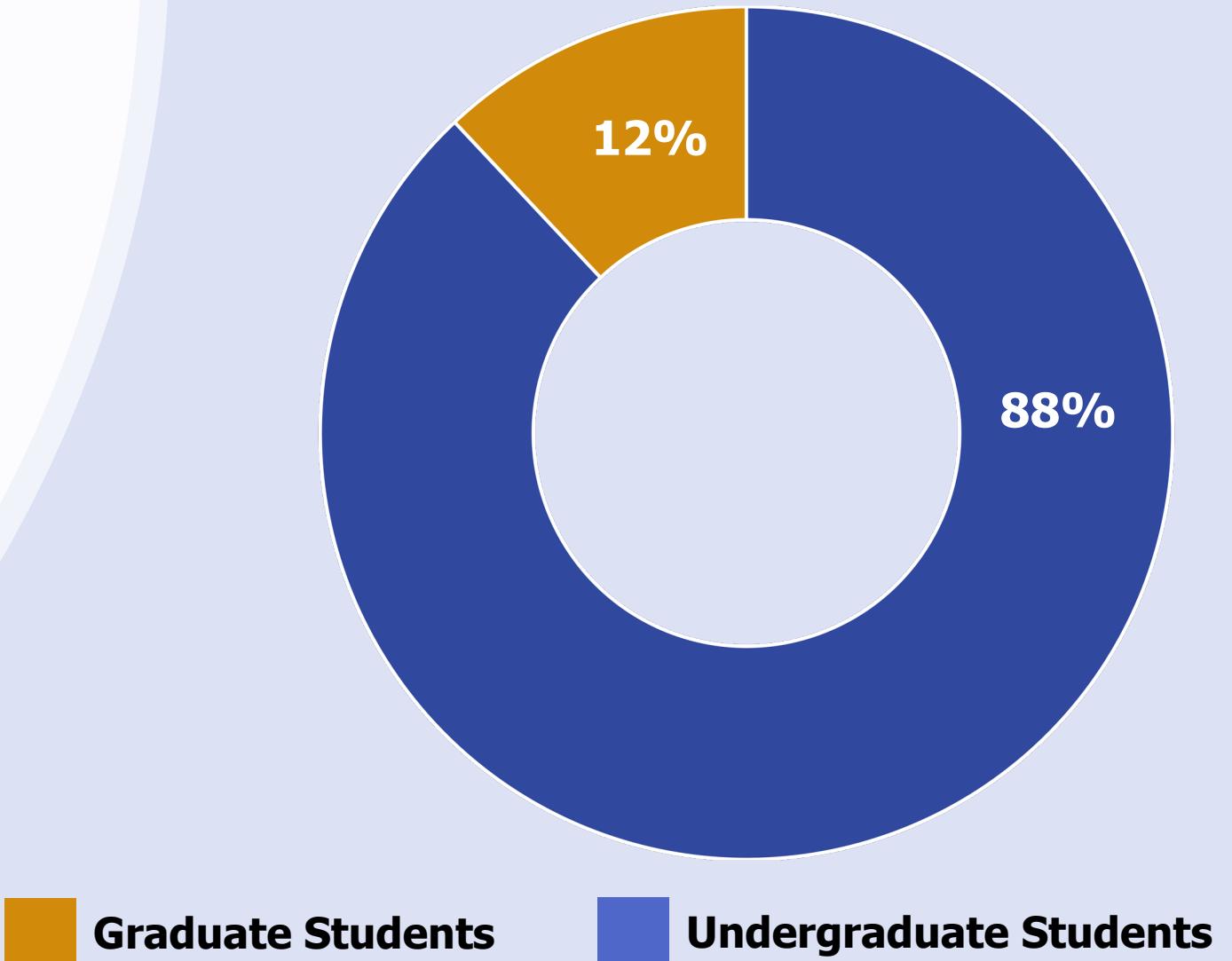
RSVP

Get Directions

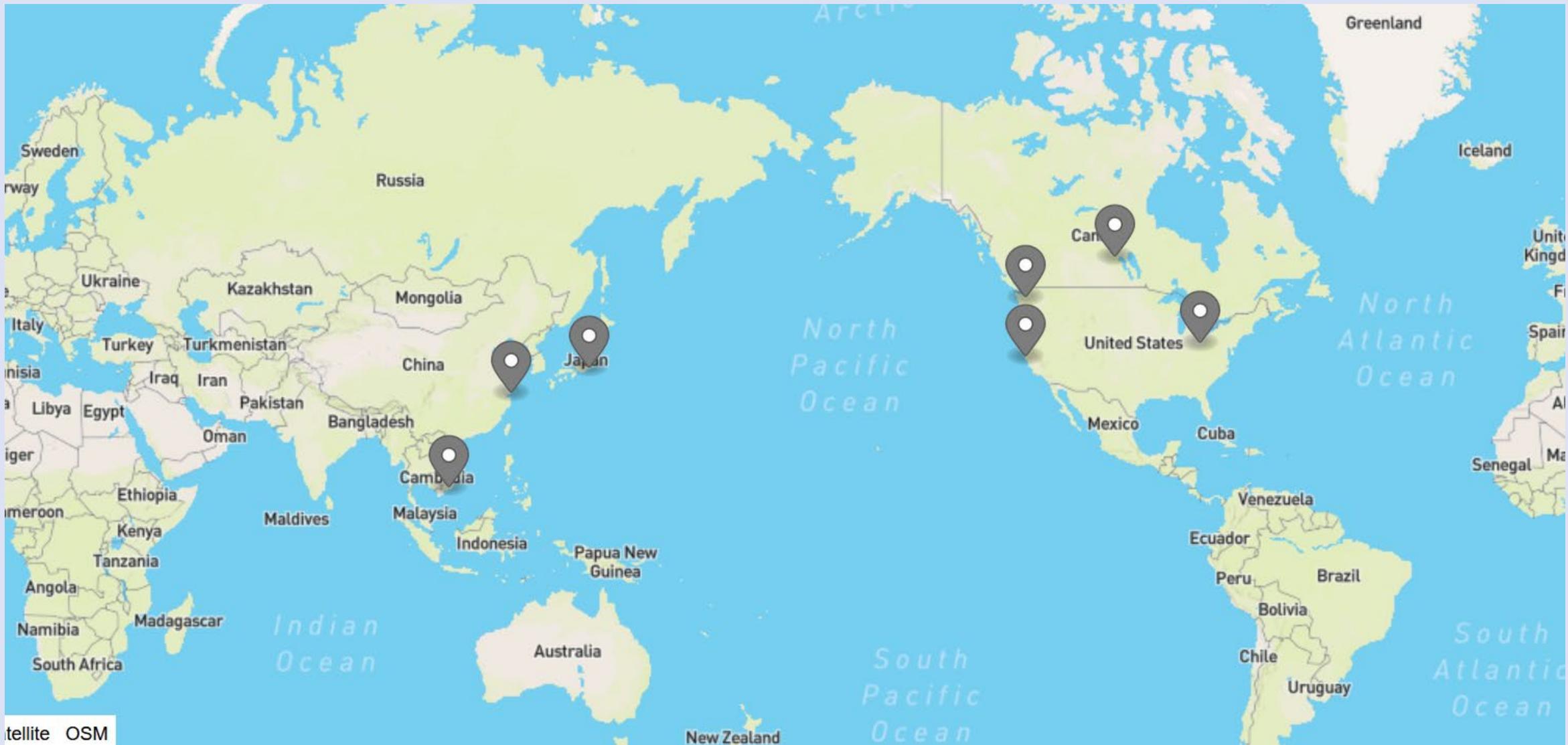
What type of web application we will be making!

About you!

Enrolled Student Status



About you!



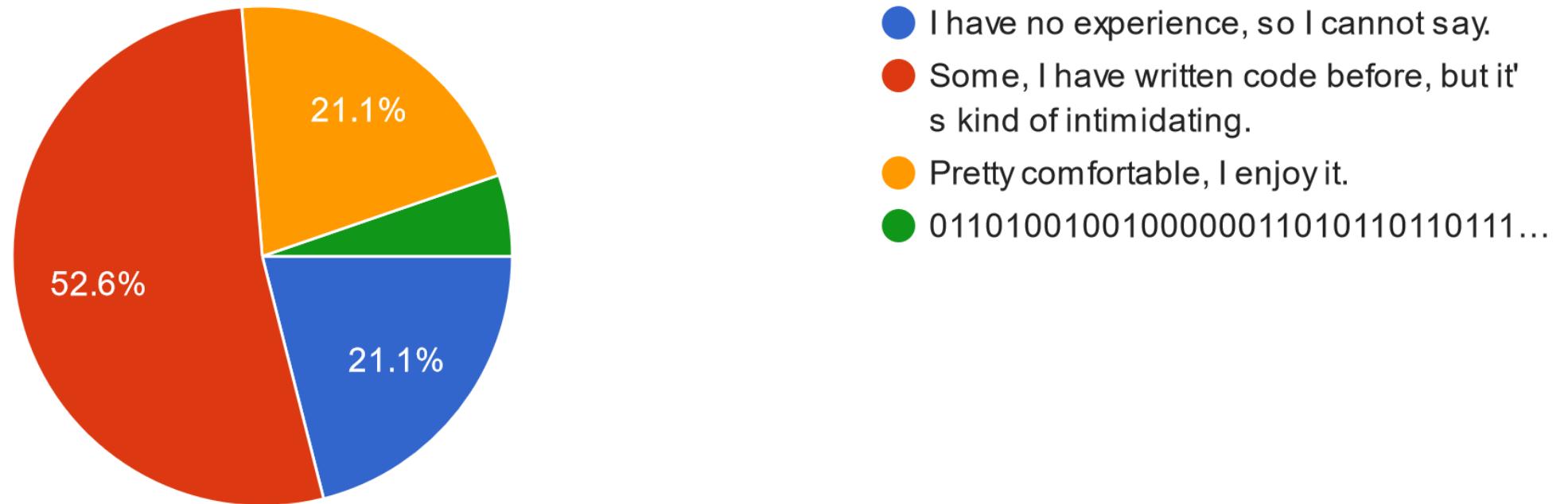
About you!

permanent
alone
chinese
immigrant
several
mother
younger
nissei
interested
parents
grew
mapping
social
gis
shanghai
sometimes
shopping
stayed
middle
born
states
years
geography
school
age
ohio
moved
india
first
maryland
change
trying
study
japan
generation
love
canada
united
english
american
japanese-american
spent
foods
part
problems

About you! Web Development

No programming experience is necessary for this course, but if you have programmed before, how comfortable are you with it?

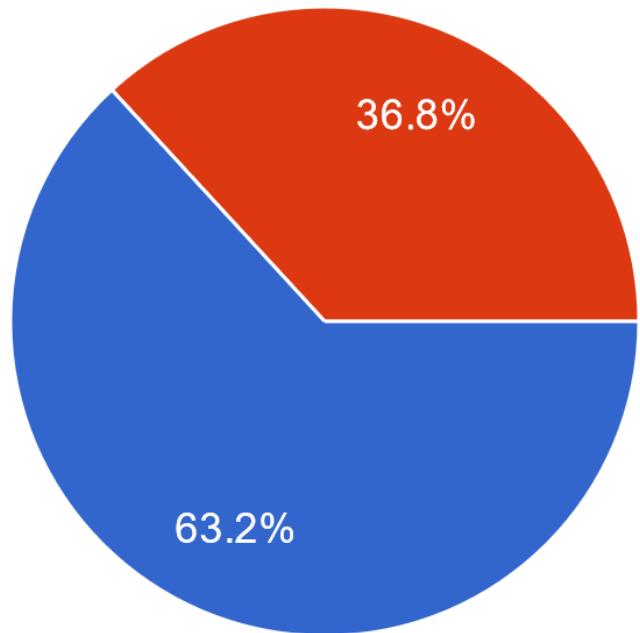
19 responses



About you! GIS

What is your familiarity with GIS?

19 responses

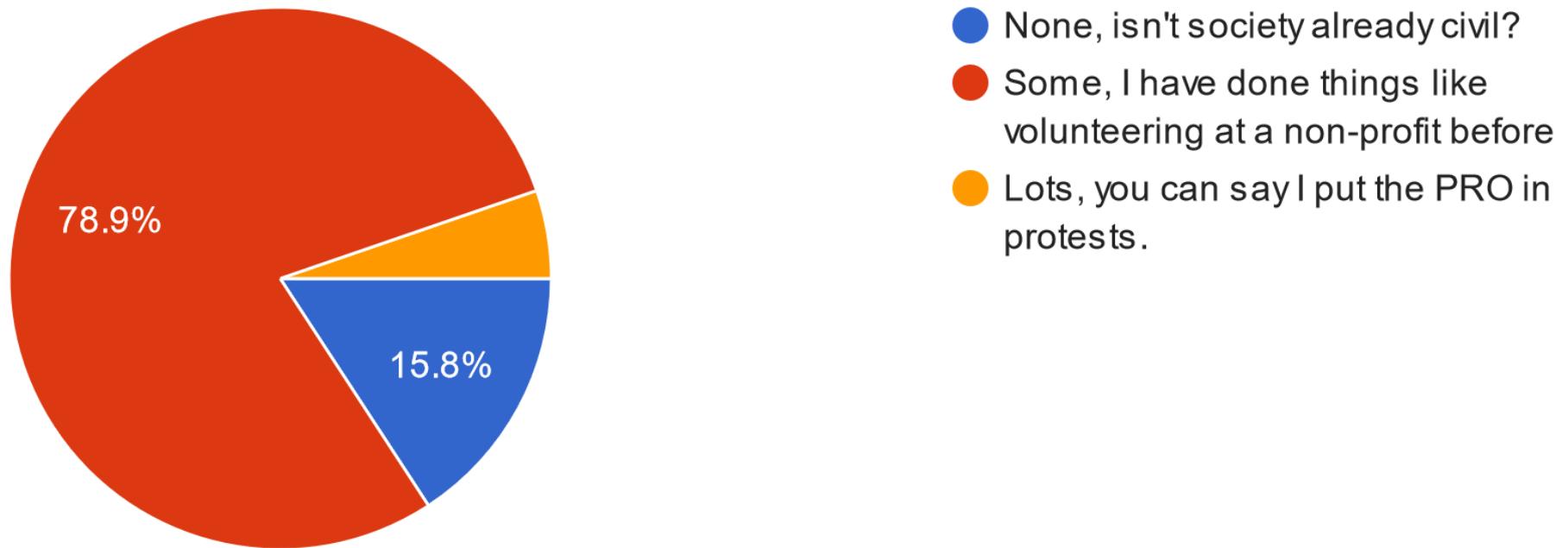


- None, the course title was the first time I heard about GIS
- Some, I got the GIST of it and I can make some maps
- Lots, you can say I am a spatial master of GI-Saster!!

About you! Civil Society

What is your experience with civil society?

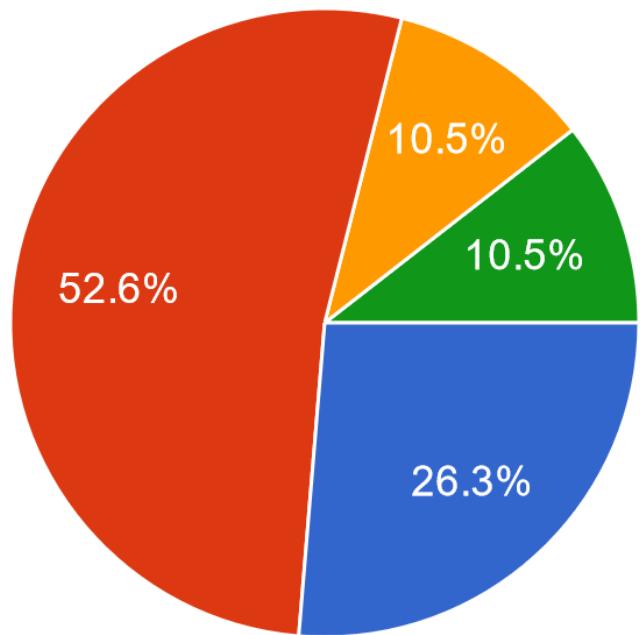
19 responses



About you! Data

What is your familiarity with cleaning data?

19 responses



- None, is that cleaning a Star Trek character?
- Some, I've cleaned up data before and made some charts
- Lots, you can find spreadsheets on my toast because they are my jam.
- None, is that a Star Trek character?

About you!

Please (**optionally**) introduce yourself with
the following

Note: Let me know if you want to skip in the chat

Name

Major

Favorite Map

About the course

About the course

- No **GIS** experience needed
- No **coding** experience needed
- No **civil society** experience needed

Learning objectives

HTML

CSS

JavaScript



Acquire technical web development skills relevant to mapping for civil society



Apply an ethical framework to mapping projects

Civic Engagement

Critical Cartography

Learning objectives summarized:

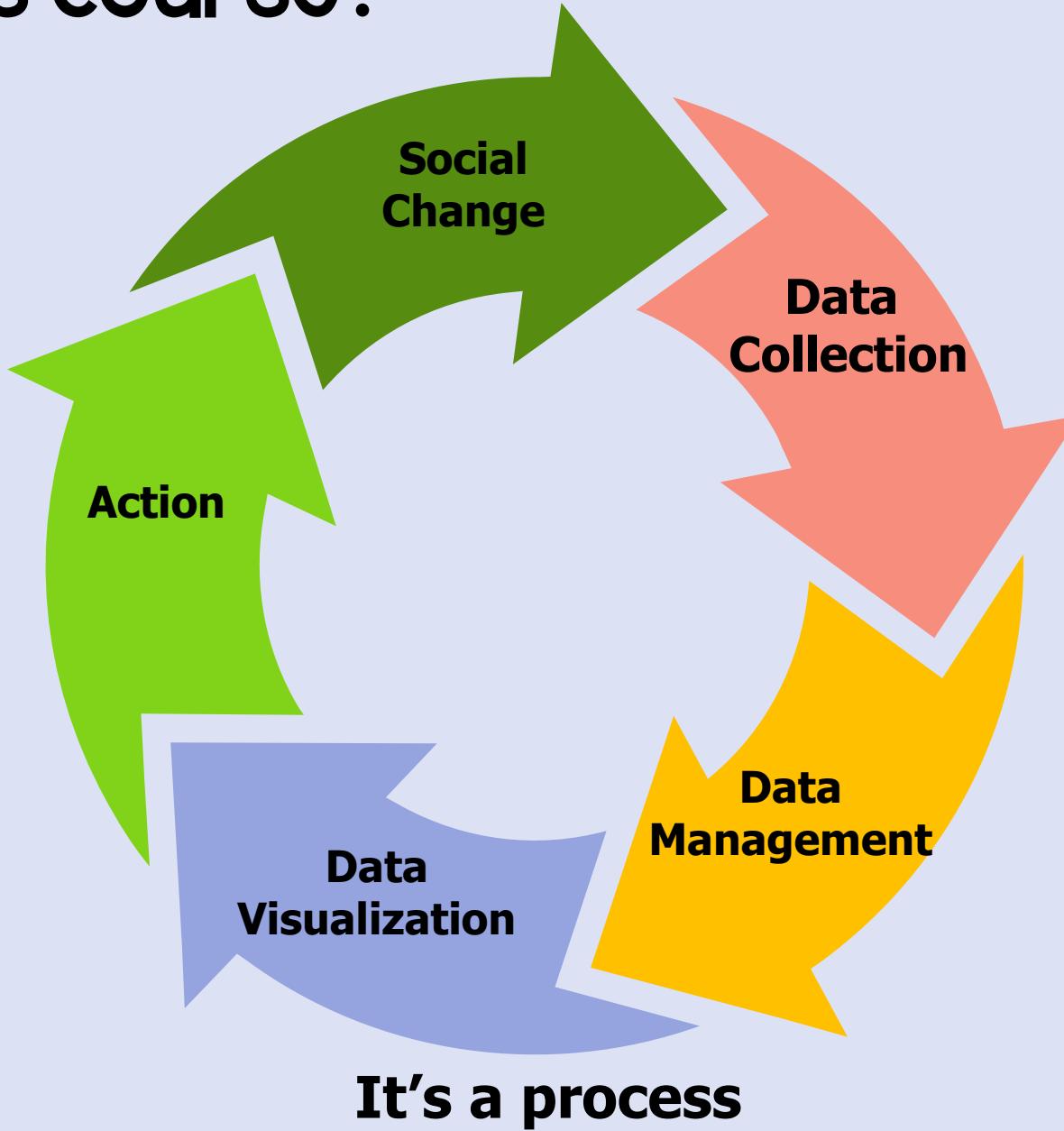
I HAVE NO IDEA WHAT I AM DOING





THIS ISN'T SO RUFF

What is this course?



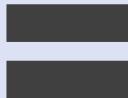
What is this course?



Ethics



Mapping



Coding



Social Change

What is this course, really?



An example project

Mapping COVID Hate Crimes in the US (Data from Stop AAPI Hate) SEE ALL OTHER HATE CRIMES REPORT INCIDENT ABOUT

CONTINENTAL USA ALASKA HAWAII

Cases per state

- None
- 1-341
- 341-545
- 545-909
- 909-2728

Leaflet | © OpenStreetMap contributors

This map is maintained by the UCLA American Indian Studies Center under the Institute of American Cultures. To contact us, email aisc@ucla.edu.

COVID Hate Crimes in US

Word Cloud

aggressor contaminating
carwash student
situation super notice
flight talk
belt mexico
liar water doctor
church boarding bowl
elevator problem
would ballot course
attendant truth course
jihad water away
conveyor mother

Ethnicity

Gender

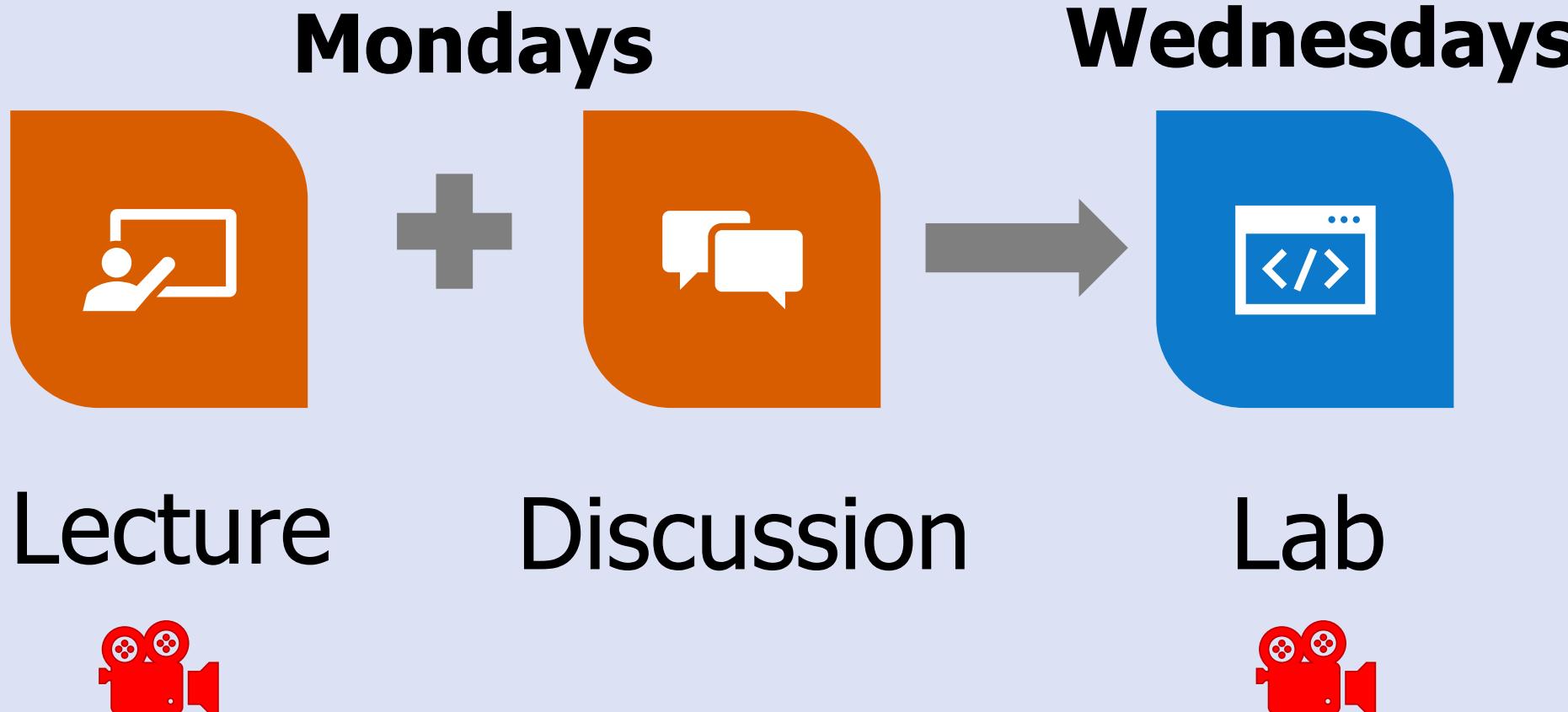
Type

* Please note that this data includes a small number of reports from witnesses of a different race than the victims.

www.hatecrime.map.com/covid

Course Details

General Course Structure *



* Course structure may shift around,
i.e. Labs can occur Tuesdays

Assignments

Individual



Readings

Weekly

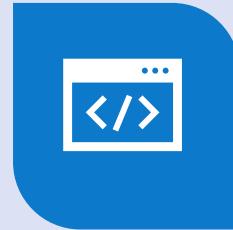


Labs



Posts

Group



Project Milestones

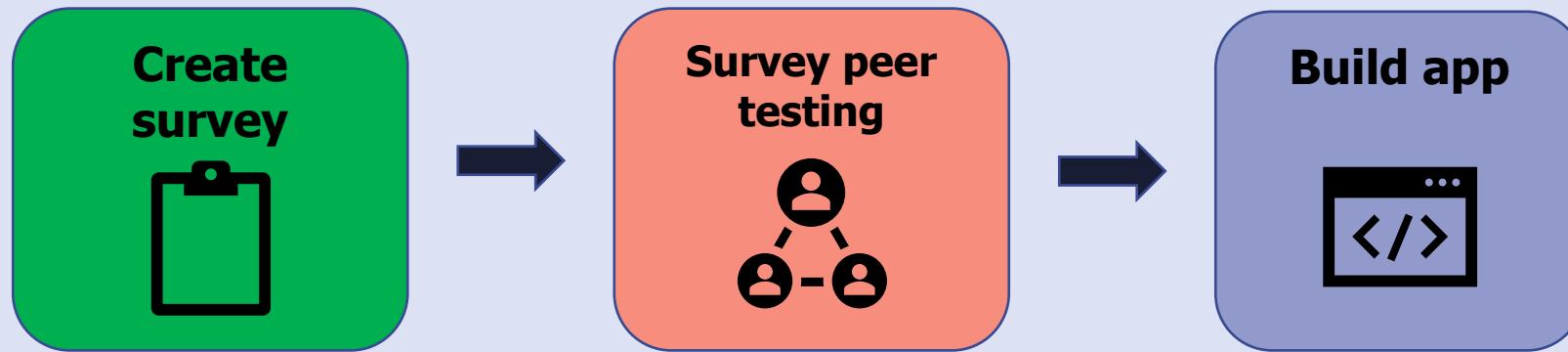
Intermittent



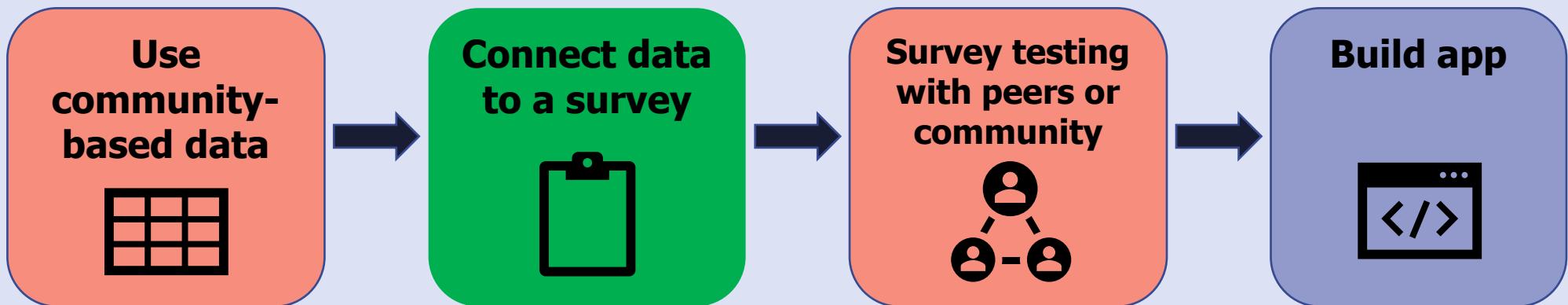
Final Project

Final Group Project

Option A:



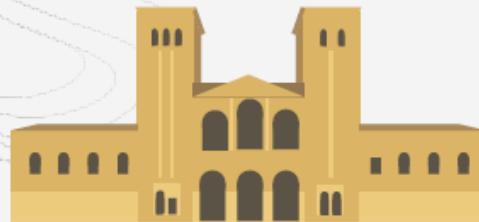
Option B:



Student Projects from 2021

You are invited to ...

Web Development and GIS for Social Change



Final Presentations

June 10th, 2pm - 4pm PST

Join via Zoom: tinyurl.com/21s-191a-finals

More Information: tinyurl.com/21s-191-groups

Featuring community stories from ...

Against Asian Hate - Elderly Asian Americans during COVID-19 in California.
Ana Gu, Adhavith Vijay, Rachel Chan

Re-Imaging 6th Street - Community insights into street pedestrianization in Ktown.
Lauren Valles, Nina Long, Kathryn Greener

LA Tenants Survey - Experiences about harrassment by landlords in LA.
Sam Karakas, Ray Hsiao, Brian Zamora

Food Equity - Food insecurities & food services in West LA.
Ericko Halim, Latisha Sumardy, Wilny Duong

Mental Health - Use and availability of mental health services at UCLA.
Michelle Nguyen, Nathakin Leepreecha, Vanessa Ta

What Does West LA Have to Say About Food Insecurity?



Choose a zip-code: [Include All](#)

Where am I?: 90025

Services Used: Community Fridges

Reasons for Use: They were closer to my home and didn't require ID

Problems of Service:

Testimony Submission Time: 5/20/2021 14:18:34

Where am I?: 90024

Services Used: Food Banks, Food Pantries, Community Fridges, CalFresh

Reasons for Use:

Problems of Service: My application process took 3 months to go through, the entire time I was struggling to afford food. The process was complex and confusing and I lost track of all the documents and info I needed

Testimony Submission Time: 5/20/2021 14:22:48

Where am I?: 90095

Services Used: Food Pantries

Reasons for Use: Because they did not require ID

Problems of Service: I don't qualify for calfresh, I wish I was

Testimony Submission Time: 5/20/2021 14:22:53

Where am I?: 90095

Services Used: Food Pantries, CalFresh

Reasons for Use: resources offered through the school

Problems of Service: food pantry hours of operation are limited and require documents I am not comfortable offering

Testimony Submission Time: 5/20/2021 14:23:31

Where am I?: 90024

Services Used: None

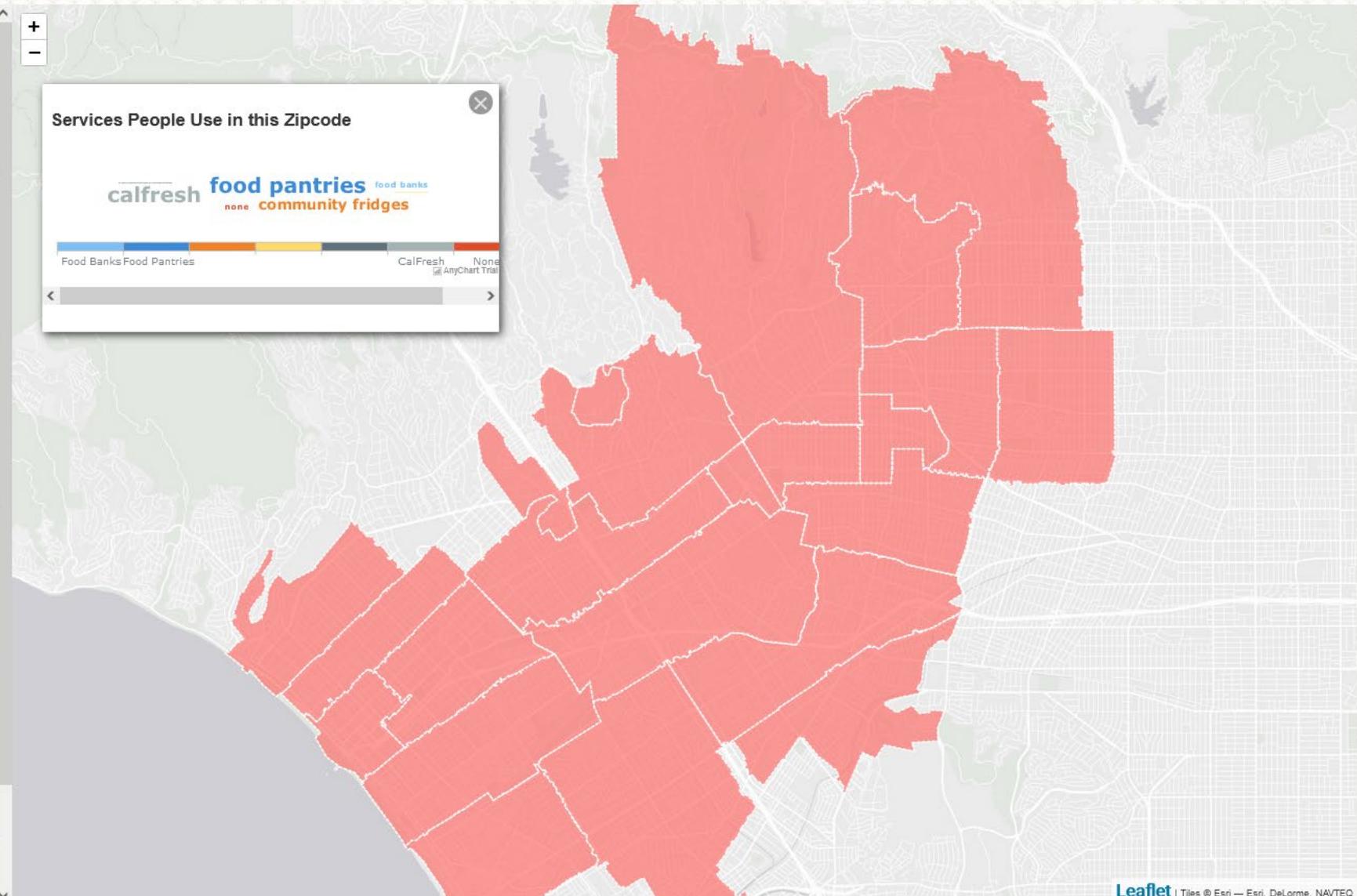
Reasons for Use:

Problems of Service: I haven't been able to access any food aid services. The closest one to me is still too far away and I'm uncomfortable with the information I need to share to apply.

Testimony Submission Time: 5/20/2021 14:25:41

Where am I?: 90210

Services Used: CalFresh



Reimagine 6th Street

[English Survey](#)[Encuesta en Español](#)[한국 설문 조사](#)[Github](#)[Contact Us](#)[About](#)

Select Language

Powered by Google Translate

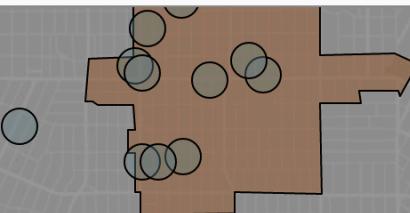
Reimagining 6th Street



"Reimagine 6th Street" is a project to repurpose 6th Street in Koreatown from Normandie Ave. to Vermont Ave. for a public pedestrian plaza to support existing Koreatown community members and stakeholders. The goals of this project are three-fold: to provide open-space in Koreatown, reduce traffic violence, and boost existing small businesses.

"Reimagine 6th Street"는 한인타운의 6번가에 (Normandie Ave.과 Vermont Ave. 사이) 공공 보행자 광장을 조성하여 기존 한인타운 커뮤니티 구성원과 관계자를 지원하는 프로젝트입니다. 이 프로젝트의 목표는 한인타운에 열린 공간을 제공하고 자동차 사고를 줄이며 기존 중소기업을 돋는 것입니다.

"Reimaginar 6th St" es un proyecto para reutilizar 6th St en Koreatown de Normandie Ave. a Vermont Av. para una plaza peatonal pública para apoyar a los miembros de la comunidad de Koreatown y a las partes interesadas existentes. Los objetivos de este proyecto son tres: proporcionar espacios abiertos en Koreatown, reducir la violencia de tráfico e impulsar las pequeñas empresas existentes.



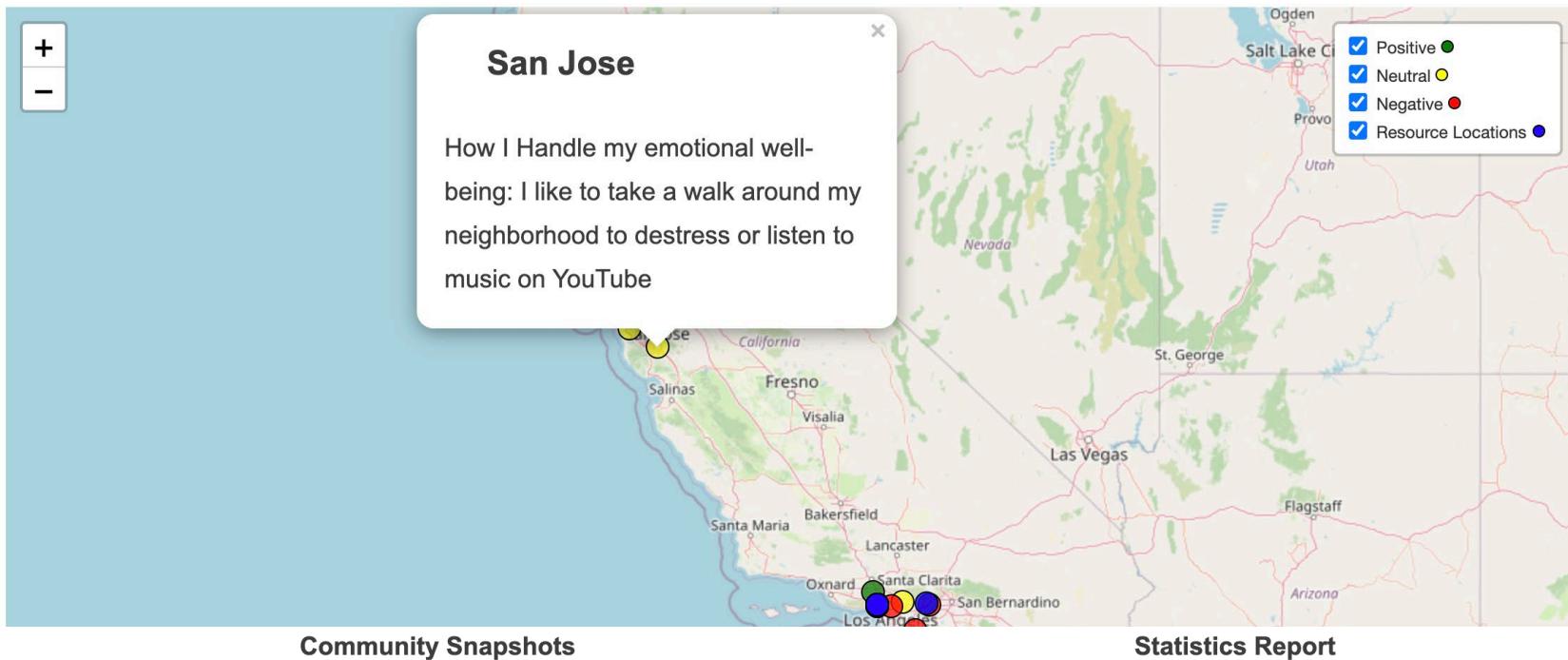
Yes 100%

90010

Total Responses: 5

Yes 100%

Where are Bruins, and how are they doing?



Community Snapshots

Statistics Report

none

Emotional Wellness

UCLA Resources Count

How Are You Doing?

I've been feeling really anxious and depressed this school year, a lot of it due to the quarantine. I just feel really overwhelmed by classes and I feel isolated from my friends and classmates.

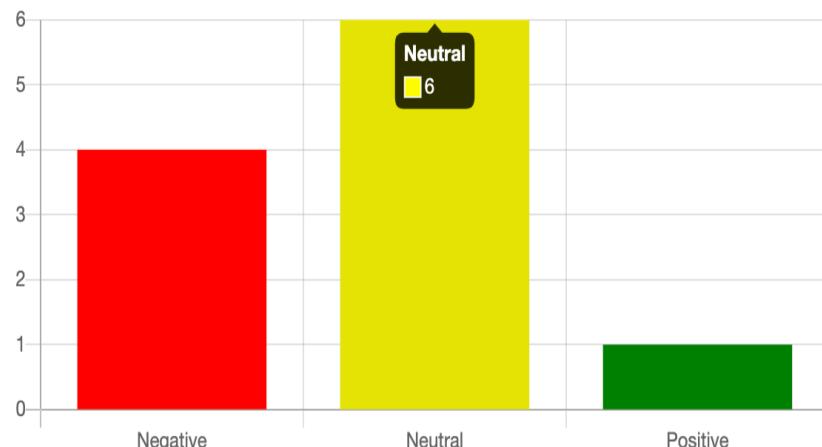
What's helped you?

Play video games, watch anime, talk to friends, cook/bake

What campus resources have you used?

SEA CLEAR peer counseling

Emotional Wellness



How Are You Doing?

How Did The Pandemic Affect Student Income at UCLA?

by Harry Frahn & Sara Perez

[Read Project Background](#) [Take The Survey!](#) [Student Resources](#)

Student Responses, Mapped

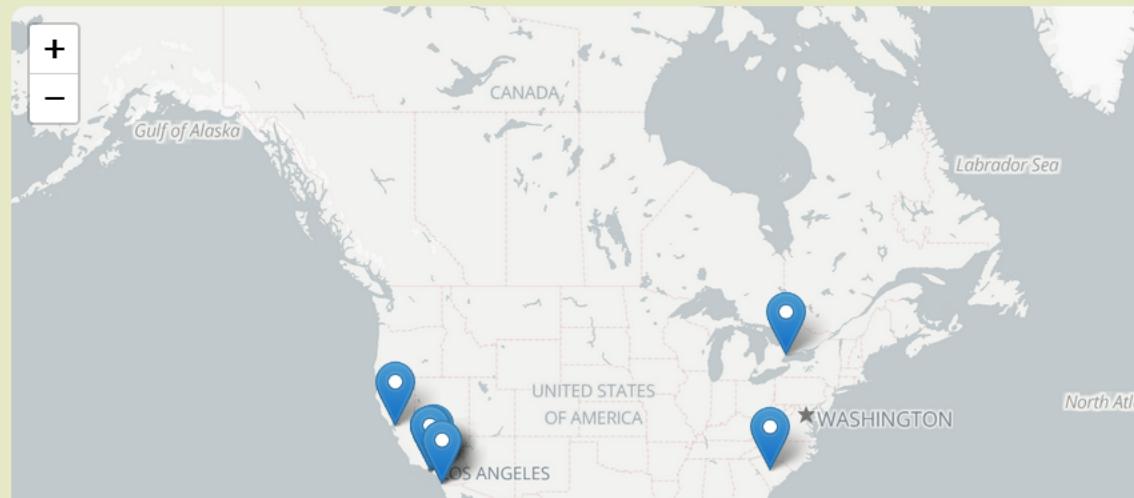
Click To See Student Responses

-
-
-
-

Summary Charts:

Do You Receive Financial Aid from UCLA?

Yes No



Student Open Responses

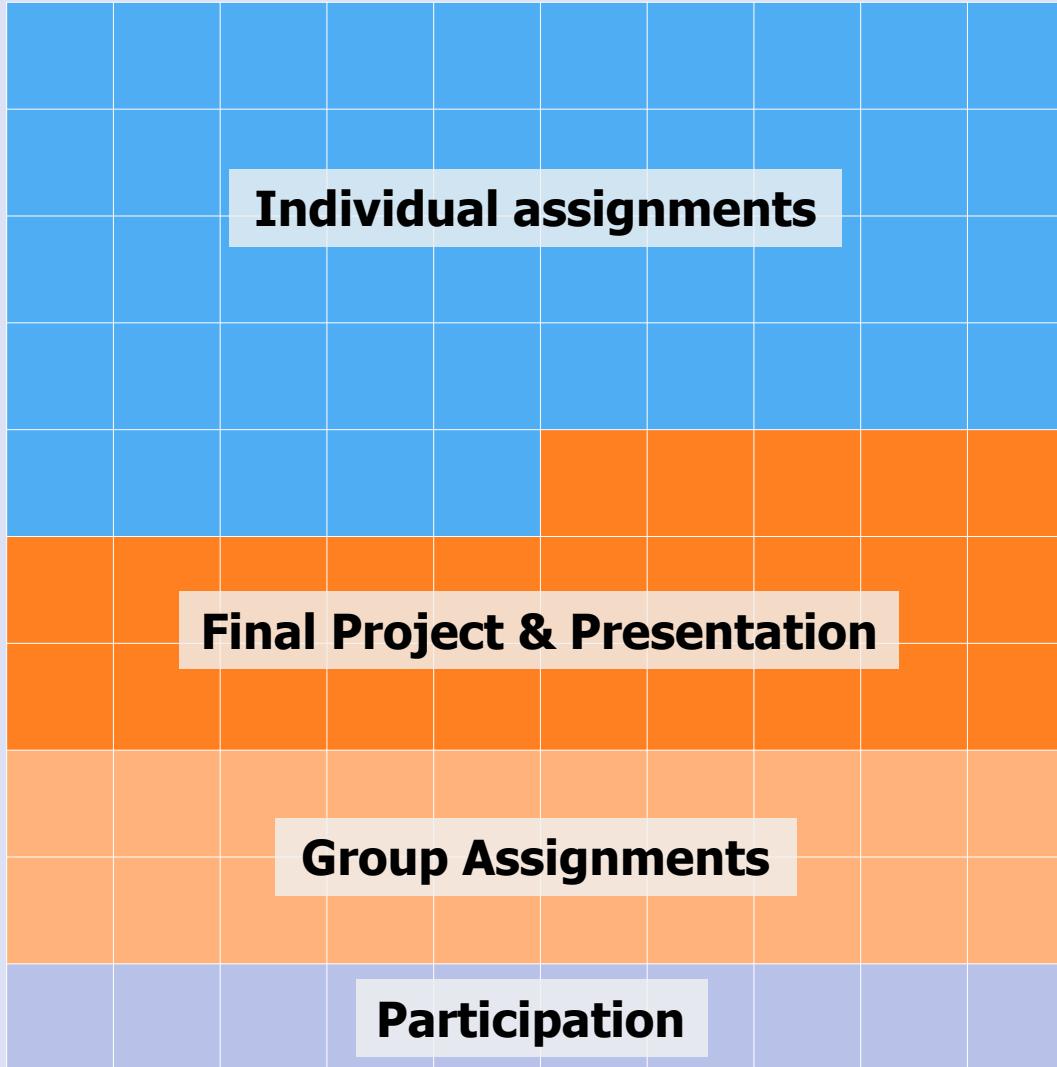
Do you consider yourself to be low-income?

Yes, i do consider myself to be low income. With 2 other siblings in college, my parents cannot afford to pay full tuition for all of us. With financial aid and work study, I'm still able to afford to pay for college but it still is much more than what my family can afford.

How did the COVID-19 pandemic affect you financially while in school?

Financially, it hasn't affected my much. I was

Evaluation



45%

25%

20%

10%

The class website and syllabus



Search or jump to...

/ Pull requests Issues Marketplace Explore



albertkun / 22S-ASIAAM-191A Public

Unwatch 1

Fork 0

Star 1

Code Issues Pull requests Discussions Actions Projects Wiki Security Insights ...

main

4 branches

0 tags

Go to file

Add file

Code

About



albertkun.github.io/22s-asiaam-191a/



albertkun feat: really fixed week1 list

✓ eaf8752 6 days ago 20 commits



.github/workflows

feat: syllabus moved to index

last month

Readme

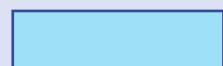
GPL-3.0 License

It's all on GitHub!

<https://albertkun.github.io/22S-ASIAAM-191A/syllabus>

Course Outline

Week	Lectures	Labs
3/28	GIS, Data, Ethics	GitHub, HTML, CSS, JavaScript
4/4	Critical Cartography and Civil Society	HTML, CSS, JavaScript
4/11	Open Source and Web Mapping	HTML, CSS, JavaScript
4/18	Web Developing for Civil Society	HTML, CSS, JavaScript
4/25	Society, Technology, and Ethics	HTML, CSS, JavaScript
5/2	Human-Centered Design	GitHub and HTML, CSS, JavaScript
5/9	Communication Design for Social Change	HTML, CSS, JavaScript
5/16	Mentorship and Collaboration	HTML, CSS, JavaScript
5/23	Connecting Activism and Technology	HTML, CSS, JavaScript
5/31	Beyond Web Development and Social Change	HTML, CSS, JavaScript

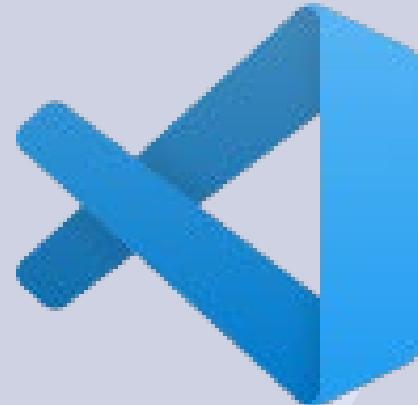


= Guest Lecturer

Course Software Requirements*



– completing assignments



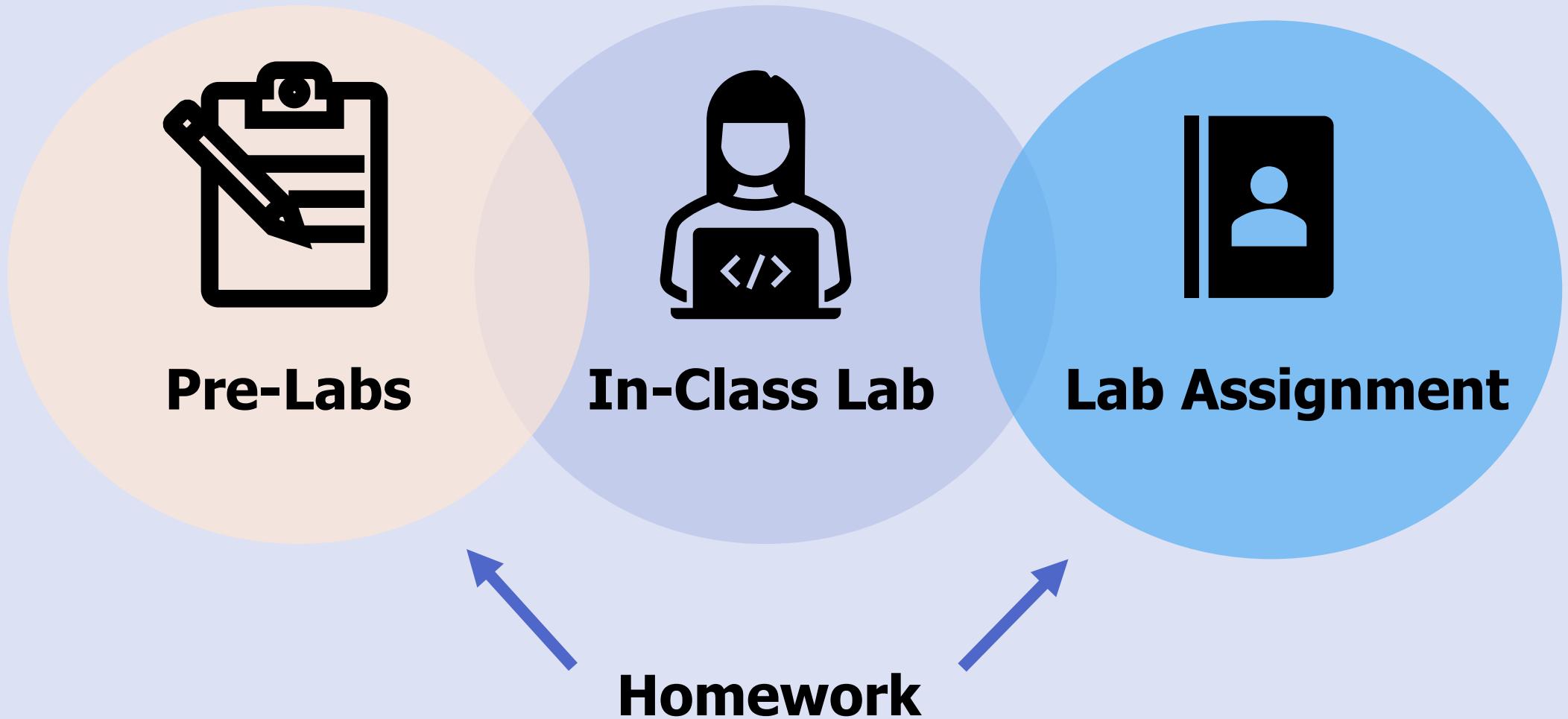
VS Code – writing code



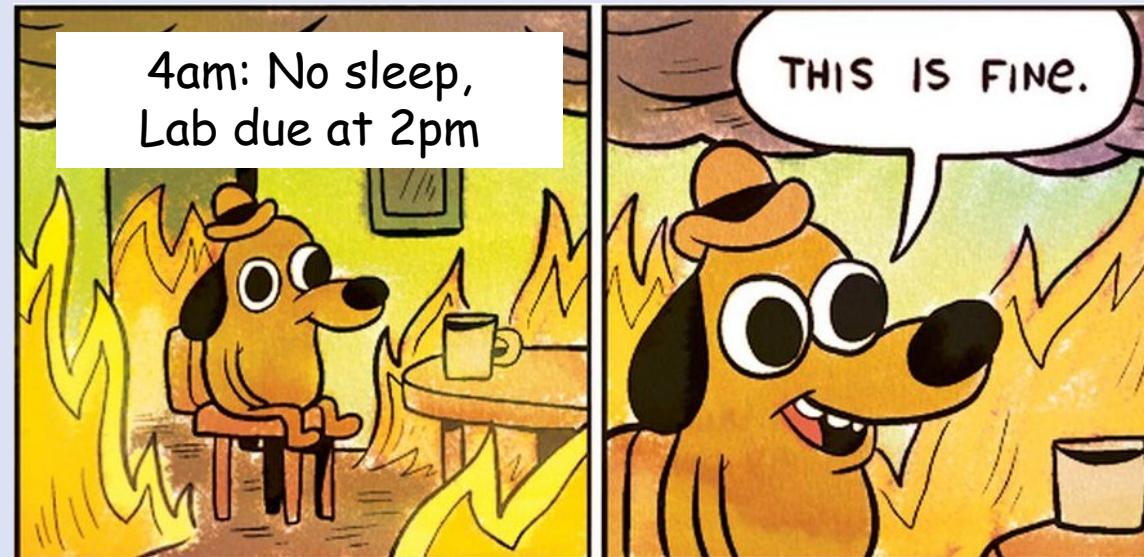
Firefox – web debugging

* Other software will not be supported

Labs



Try to avoid this situation:



Get help early and often!

Places to get help

- **Search online**

StackOverFlow.com

- **Ask the class!**

- **Discord**

<https://discord.gg/BpWSHYNsZA>

- **GitHub Discussions**

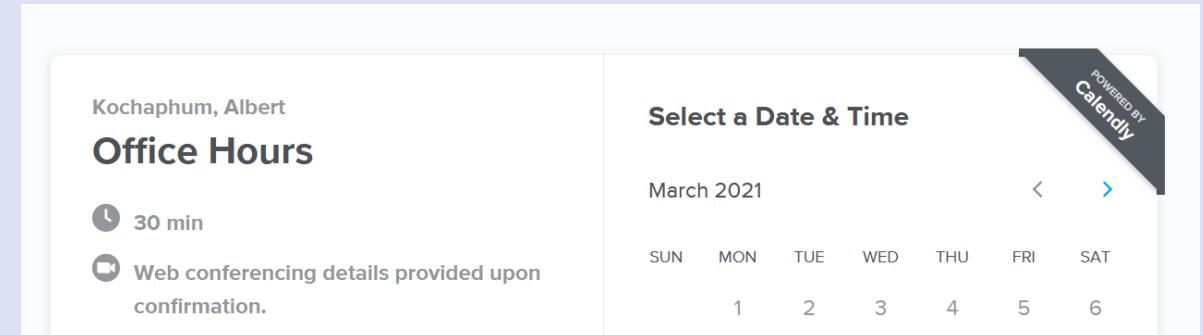
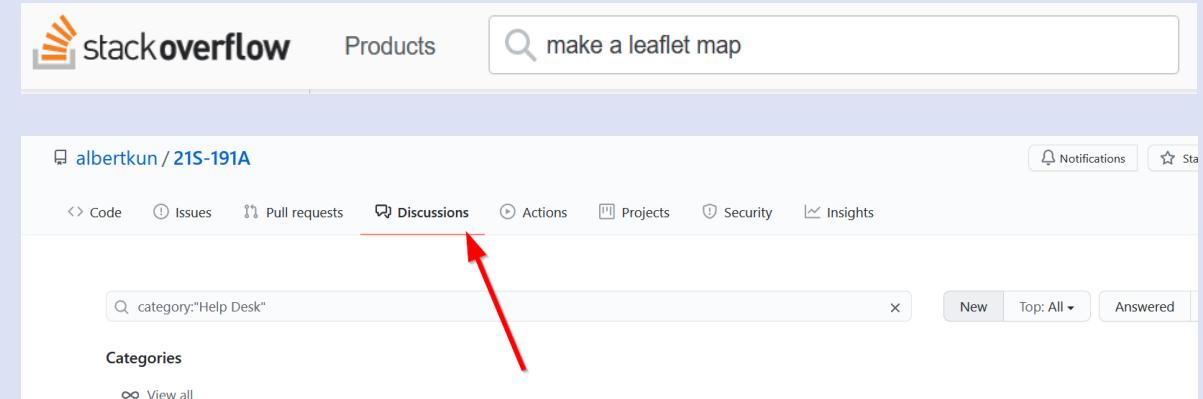
<https://github.com/albertkun/22S-ASIAAM-191A/discussions/>

- **Drop by office hours**

<https://calendly.com/aa191a/office-hours>

- **Email the instructor**

albertkun@oarc.ucla.edu



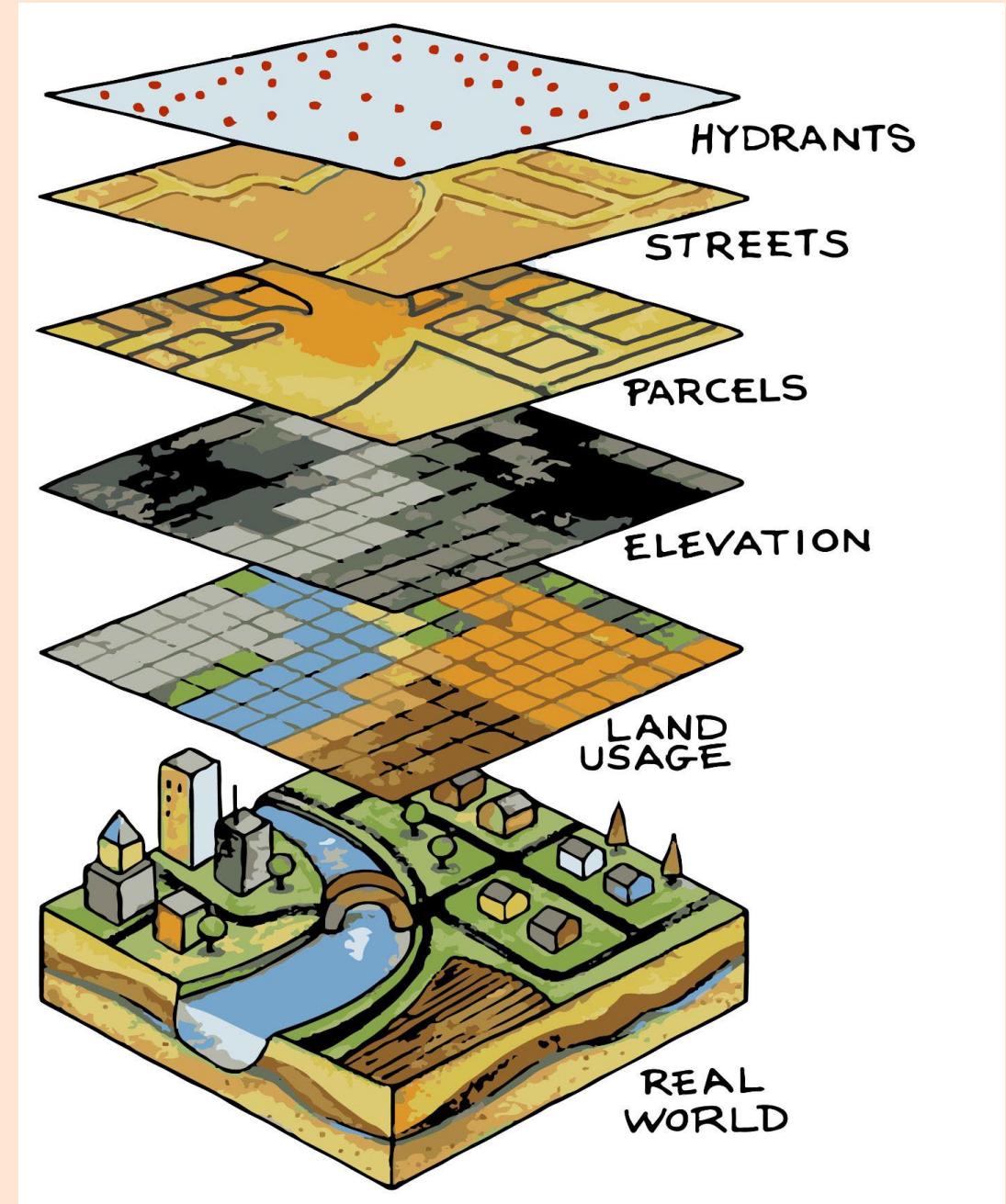
Core Principles in summary:



GIS, Data, and Ethics

**Albert Kochaphum
Lecture 1 | March 28th, 2022**

GIS



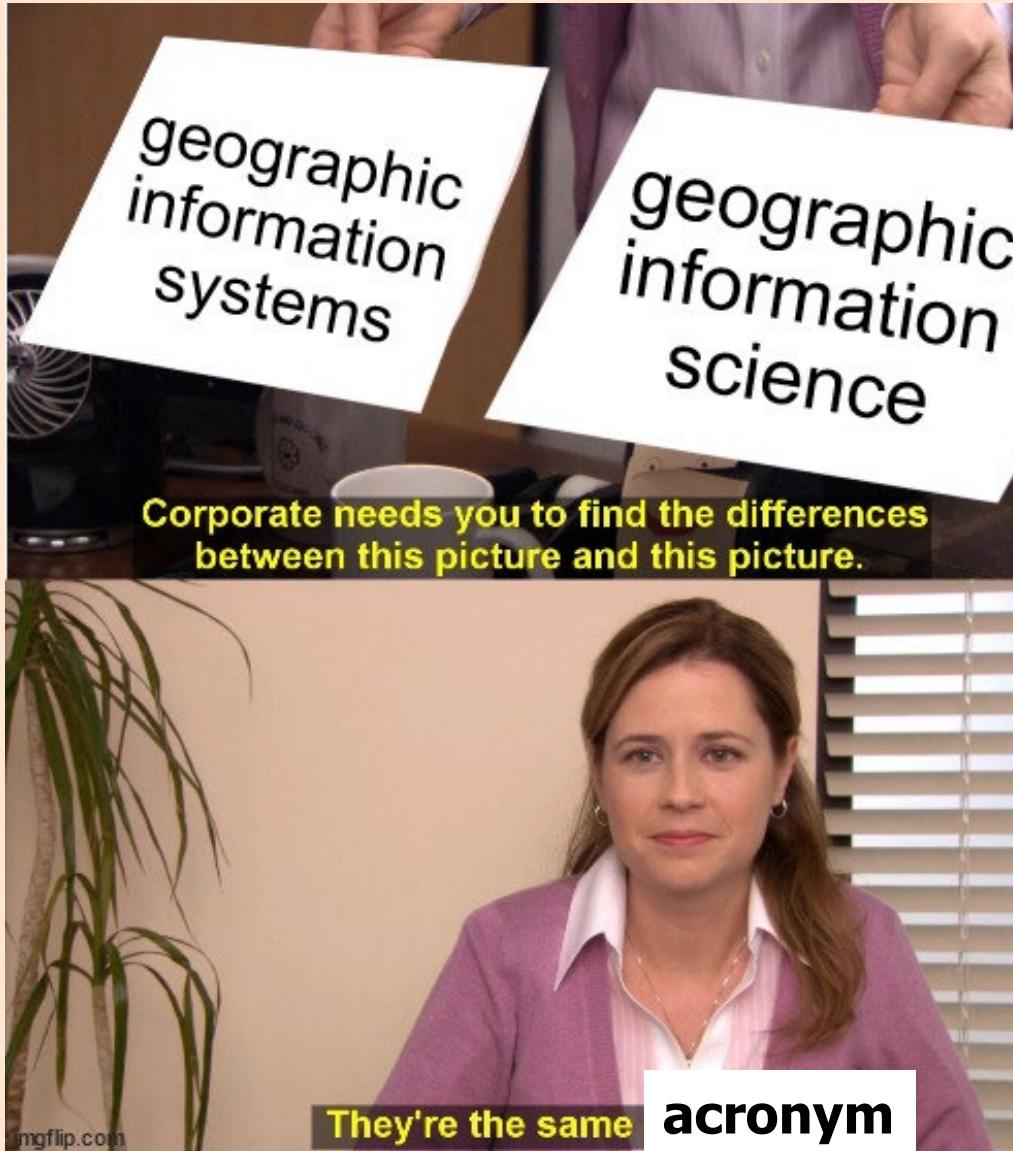
What is GIS?

A) Geographic Information Systems

or

B) Geographic Information Science

What is GIS?



What is GIS?

GISystems

=



Spatial tools

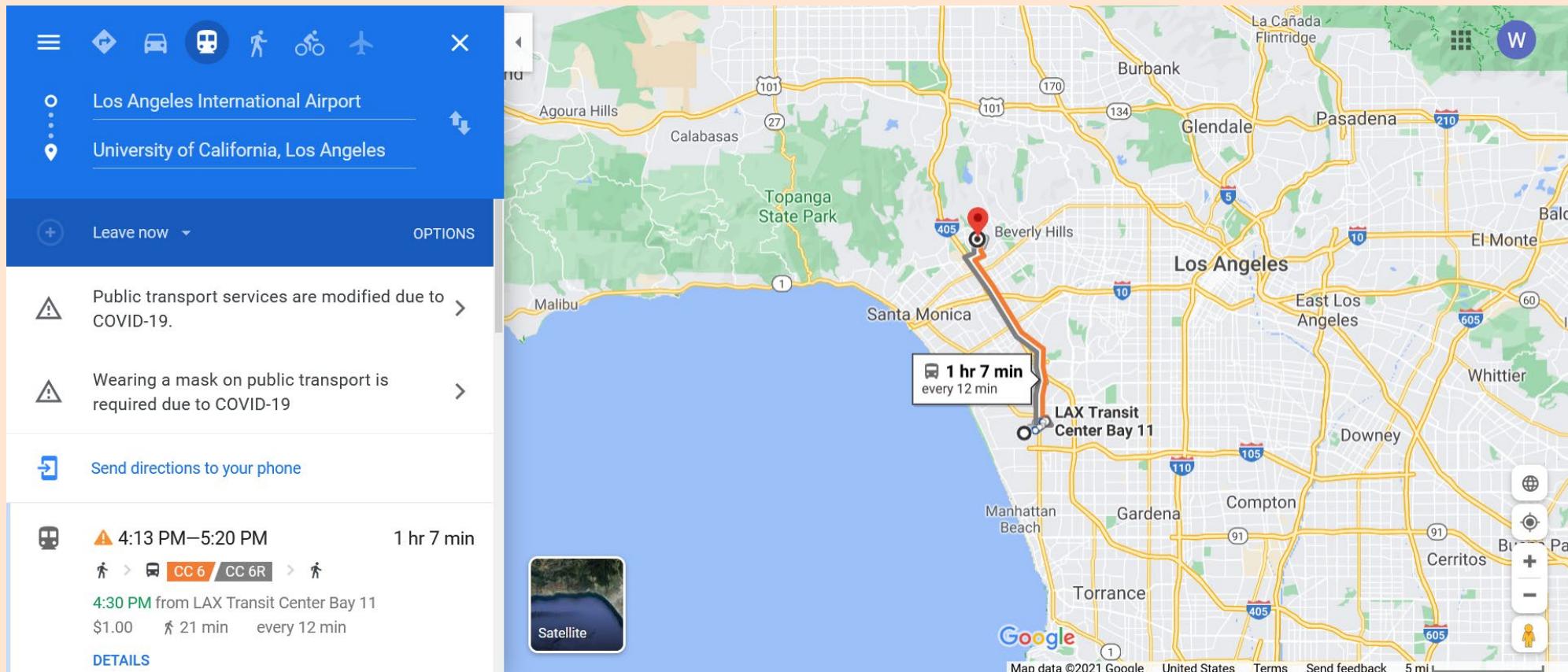
GIScience

=



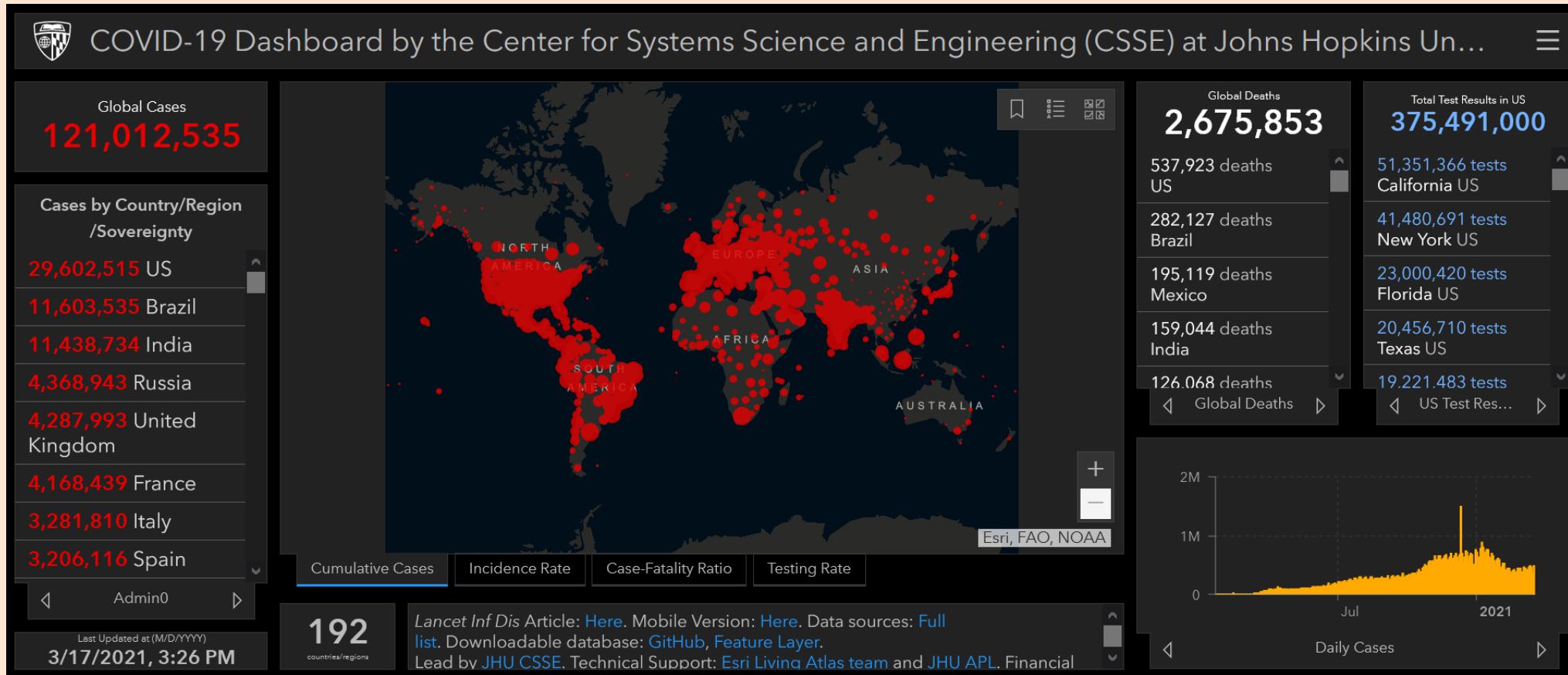
Spatial thinking

Examples of GIS



Google Maps Directions from LAX to UCLA, <https://maps.google.com>

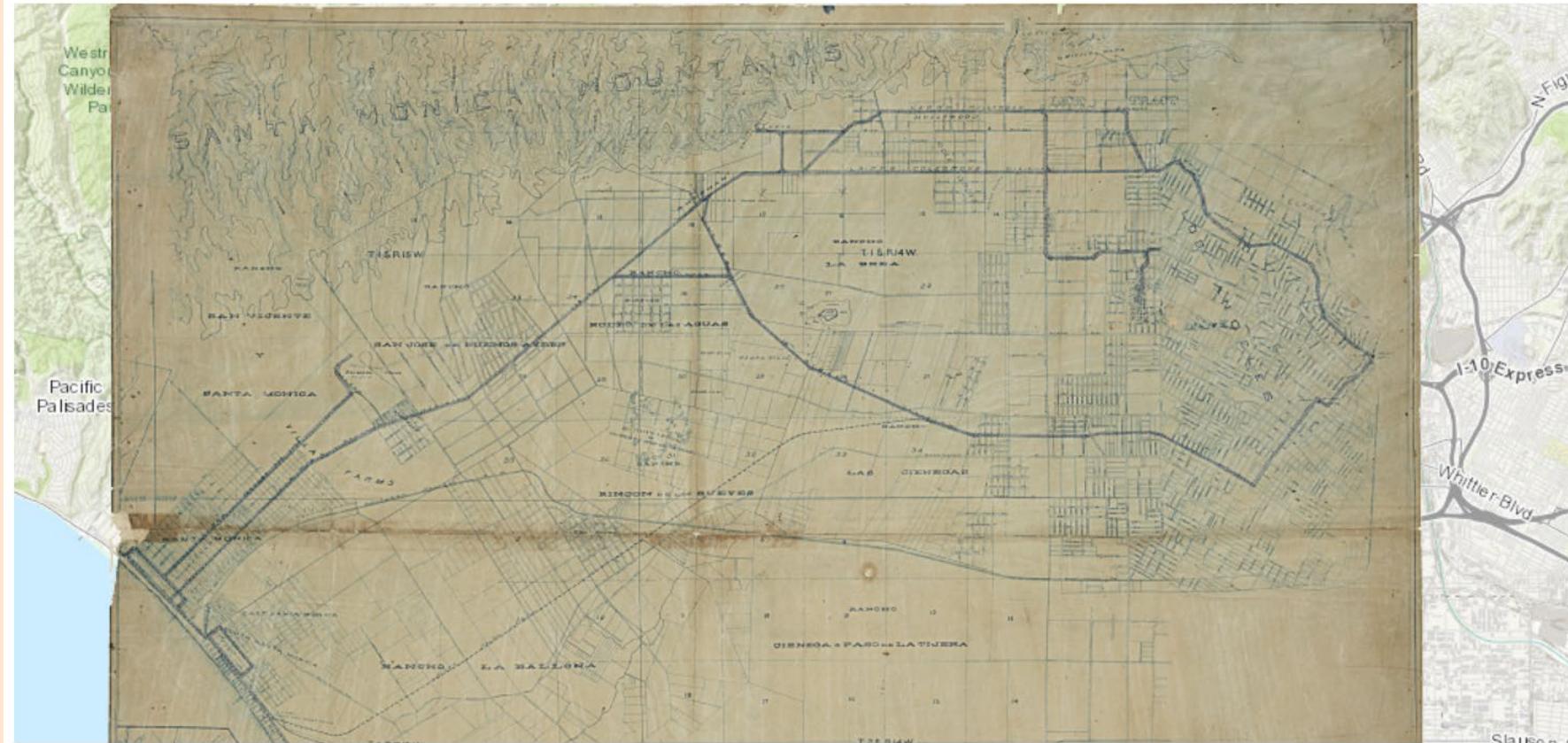
Examples of GIS



Johns Hopkins University COVID-19 Dashboard, <https://systems.jhu.edu/>

Are historical maps GIS?

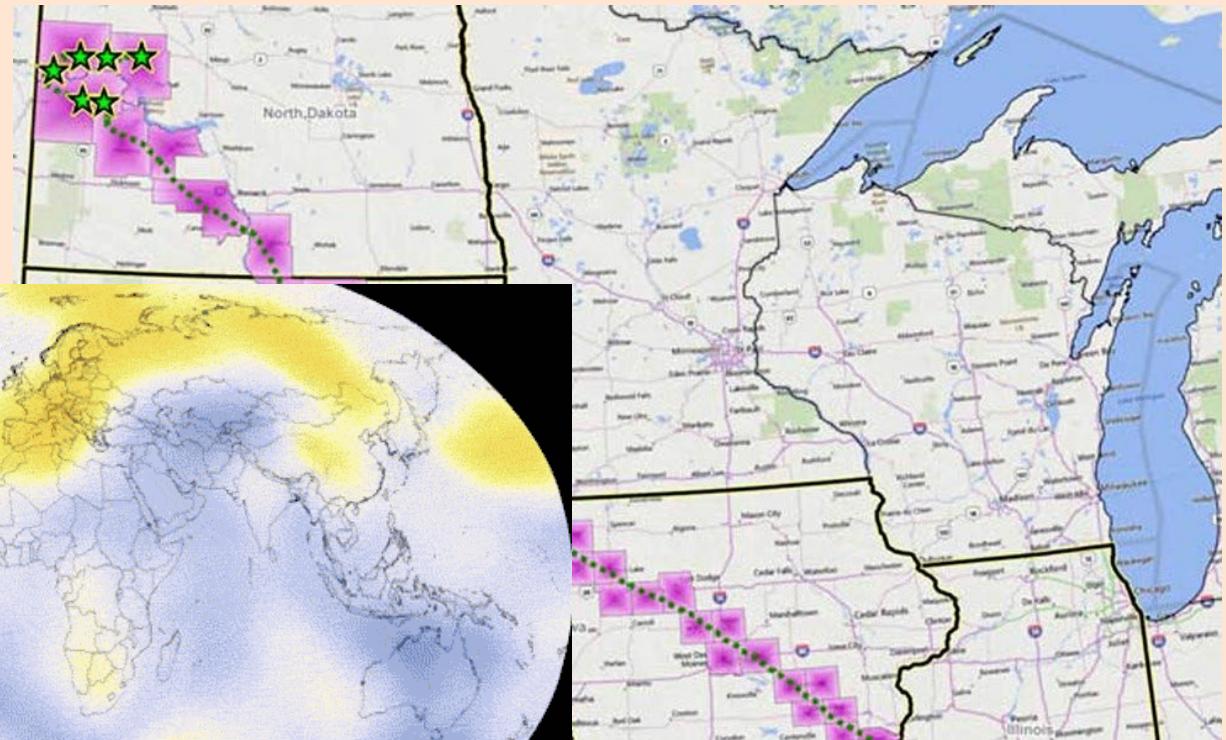
Map of the Los Angeles-Pacific R.R.



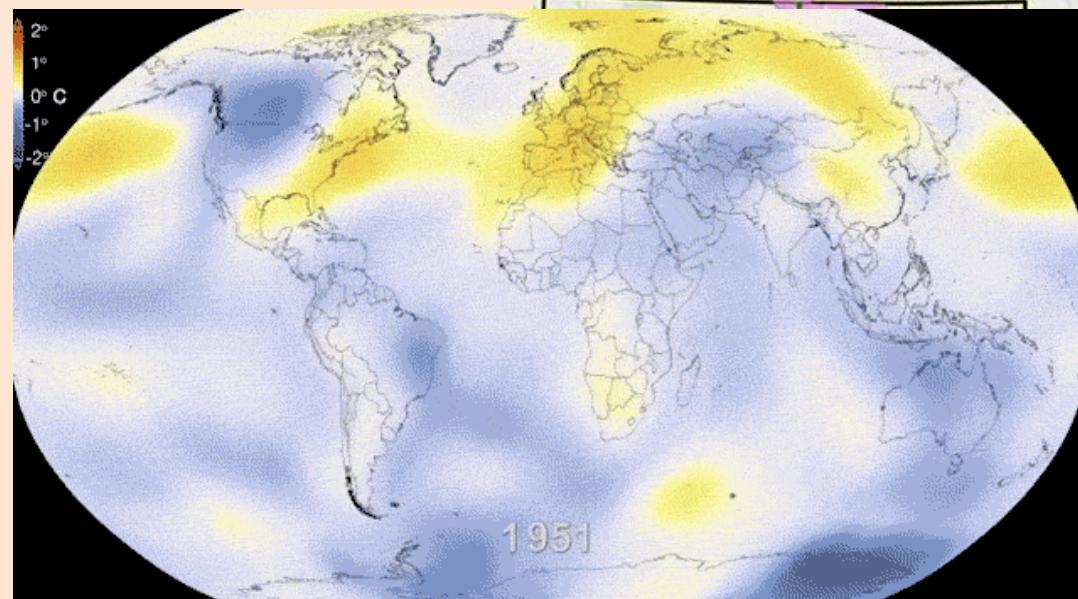
HyperCities Map Library, <http://www.hypercities.com/maplibrary/index.html>

GIS exists in various forms

It can disempower



It can empower



North Dakota
Access Pipeline

**Global Temperature
Increase**

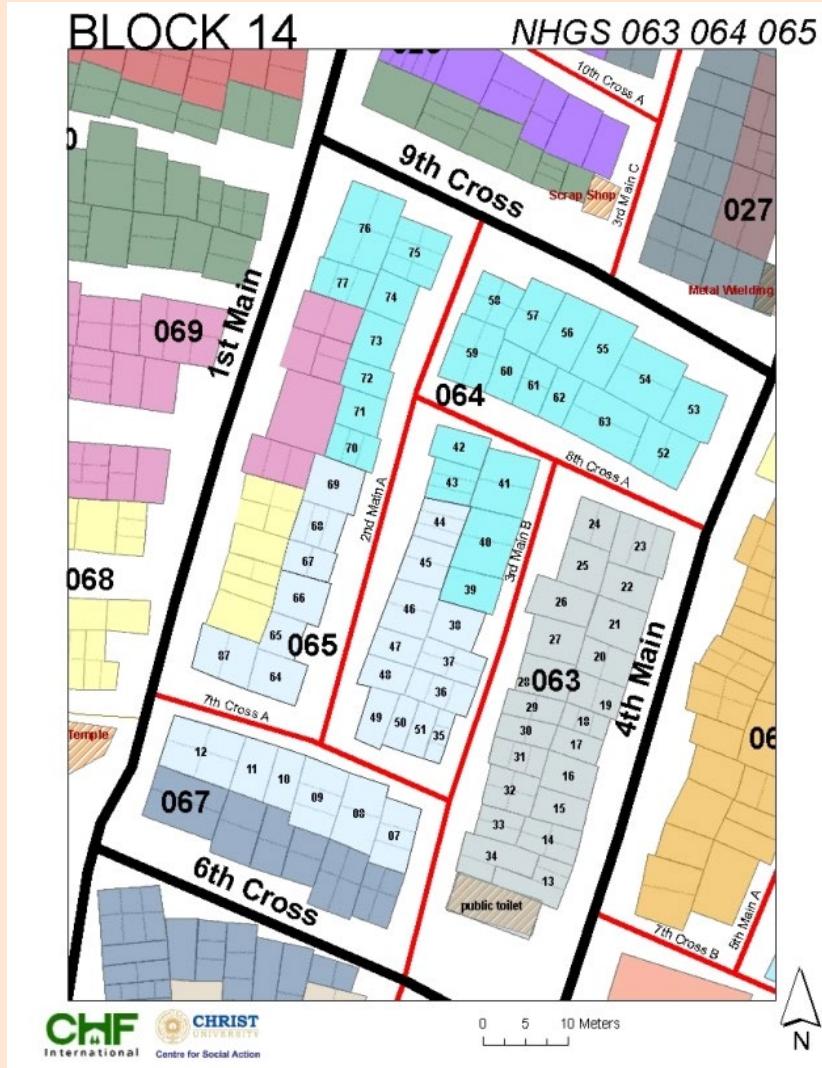
Participatory GIS/Community-Based GIS

**Our
Focus**



	Outsiders' objectives include	Roles/Relationships		Actions		Ownership
		Outsider'	Local people's	Outsider'	Local People's	
TOTALITARIAN	State political control	Dictator	Slave	Command	Comply	Outsiders'
NOMINAL	Cosmetic legitimisation	Manipulator	Puppet			
EXTRACTIVE	Obtain local knowledge for better planning	Researcher /planner	Informant			
INDUCED	Gain action Through material incentives	Employer	Worker			
CONSULTATIVE/INSTRUMENTAL	Improve effectiveness and efficiency	Rational economiser	Collaborator			
PARTNERSHIP	Share responsibility and power	Co-equal partner	Co-equal partner			
TRANSFORMATIVE	Facilitate sustainable development by local people	Facilitator /catalyst	Analyst /Actor /Agent			
SELF-MOBILIZING	Support spontaneous action	Supporter	Owner /controller	Support	Initiate	Local people's

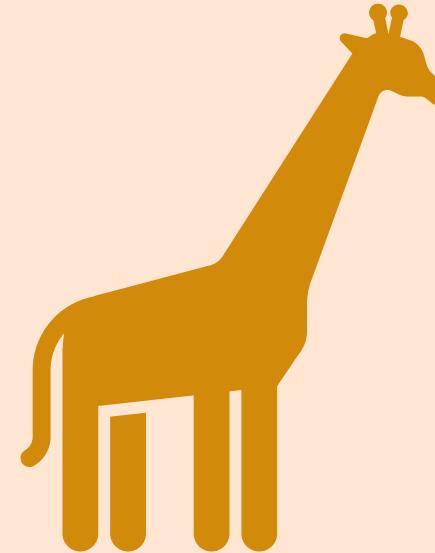
Participatory GIS/Community-Based GIS



Data



Data



Qualitative

- Color
- Animal species

Quantitative

- Height
- # of legs

Applying our knowledge!

Was the data collected in
the Student Survey
qualitative or quantitative?

Welcome to the Student Survey for AA-191A!

Fill out this student survey for AA-191A: Web Development and GIS for Social Change at your earliest convenience before the first day of class Tuesday (3/30). Please remember that no programming or GIS experience is necessary for this course. This survey will assist in partnering you up with other students and also be used to help us learn about each other in the first week.

Be sure to read the syllabus to learn more about the course before responding:
<https://github.com/albertkun/21S-191A/>

Email address *

Valid email address

This form is collecting email addresses. [Change settings](#)

Name

*

Short answer text

Critical Data Studies



Problems with a data-only approach:

**Assumes Social problems
are**

Knowable

Controllable

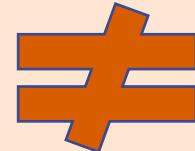
Rational

Neutral

Technocratic

Objective

Non-ideological



Voices of community

Power relations

Power Inequalities

Alternative data forms:

The screenshot shows the Humanitarian OpenStreetMap Project (HOT) website. At the top, there's a navigation bar with links to Data Catalog, Geohub, Blog, Developer Resources, About, and social media icons for Facebook, Twitter, and a search bar. Below the navigation is a main menu with sections like WHAT WE DO, OUR WORK, TOOLS & DATA, NEWS, COMMUNITY & ORGANIZATION, PARTNER WITH US, and GET INVOLVED. A search bar is also present. The main content area features a map of the world with a search bar and a 'Go' button. A blue banner at the bottom reads "Mapping Hate Crimes in the US #OneHateCrimeIsTooMany" and includes links to "SEE COVID HATE CRIMES" and "REPORT INCIDENT". A modal window is open, prompting the user to enter a harassment location. It includes a note about COVID-related incidents, a "NEXT" button, and a "BACK" button. The number 1 is highlighted in a blue circle next to the "Harassment Location" label. The number 2 is highlighted in a grey circle next to the "Date of Harassment" label.

Eric
Garcetti
@MayorOfLA

Data Catalog Geohub Blog Developer Resources About | [f](#) [t](#) [Search](#) | Sign In

HOT Humanitarian OpenStreetMap

OpenStreetMap Edit History Export

Search Where is this? Go

Mapping Hate Crimes in the US #OneHateCrimeIsTooMany SEE COVID HATE CRIMES REPORT INCIDENT

If this is a COVID-related incident, consider navigating to the COVID page through the menu and reporting there.

1 Harassment Location

Enter location

BACK NEXT

2 Date of Harassment

Alternative data forms:

More Community based



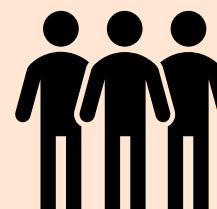
Open Data



Humanitarian



Crowdsource



Participatory



**Our
Focus**

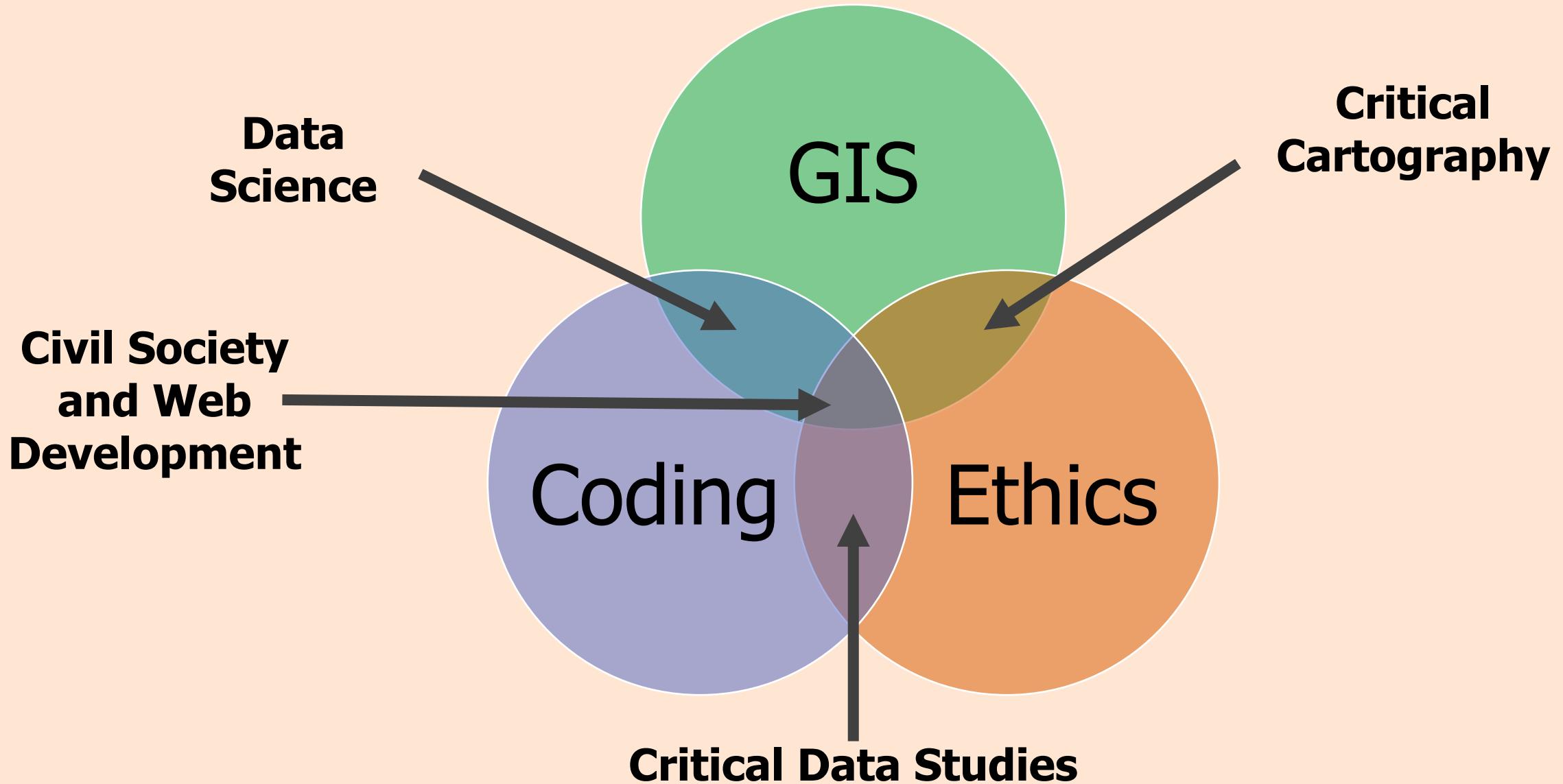
Ethics

Ethics

- Concerned about **how** and **why** we code/make maps
- There are no “right” answers
 - **But** we should be able to defend why we chose a particular action



Fitting Ethics in



Ethics



learn to
code without
facing
social problems



learn to
code for
communities facing
social problems

My Ethics



"We are privileged to be able to have access to education, our responsibility should be to empower others."



"Technology should be used to fight back and amplify community voices against institutions."

Ethics is rooted in the “service” to the university mission



UCLA'S CORE MISSION CAN BE EXPRESSED IN JUST THREE WORDS:

Education, Research, Service.

First Discussion

What are your ethics when it comes to using technology?

- In what ways should the internet and maps be used for good? For bad?
- Does this apply to other technology too?
 - Ex. Video games or smartphones

Thinking cap for the week:

**What are problems with the way we use
data and GIS?**

<https://github.com/albertkun/22S-ASIAAM-191A/discussions/1>

First Assignments

Complete the following:

Due Wednesday 3/30:

1. Pre-Lab

Note: Unless specified otherwise, all assignments are due at the beginning of class. Late assignments will be given half credit up to 1 week.