

Welcome to

Asia American Studies-191A

Web Development and GIS

for Social Change

Critical Data for Transforming Civil Society



Join at
slido.com
#ucla

Albert S. Kochaphum
Summer 2024 Session A | June 26th, 2024



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#ucla

How are you feeling?

excited
Hot
Happy
good okay
sweaty great



Join at
slido.com
#ucla

How are you feeling?

excited
Hot
Happy
good okay
sweaty great



Join at
slido.com
#ucla

How was the pre-class survey? *

Just right



Needed more puns



Too long



Too short



What pre-course survey?



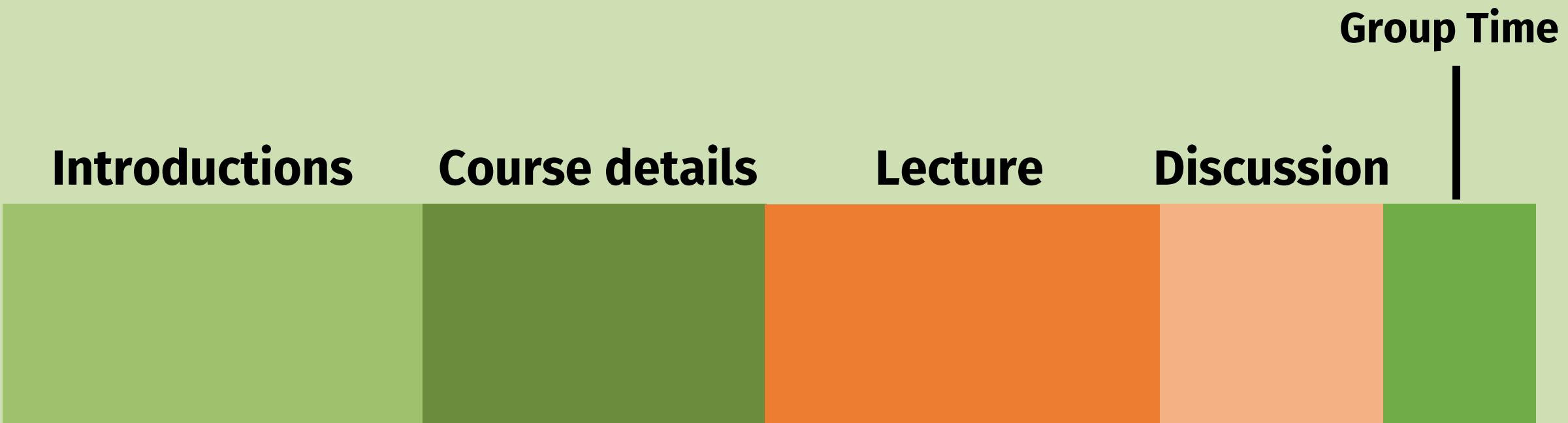
Web Development and GIS for Social Change

Welcome



- Welcome**
- Introductions**
- Lecture**
- Wrap-up**

Today's Agenda



Web Development and GIS for Social Change

Introductions



Welcome
Introductions
Lecture
Wrap-up



About me

GIS + code = ftw

bikeclist

can we haz
more social equity?

free palestine

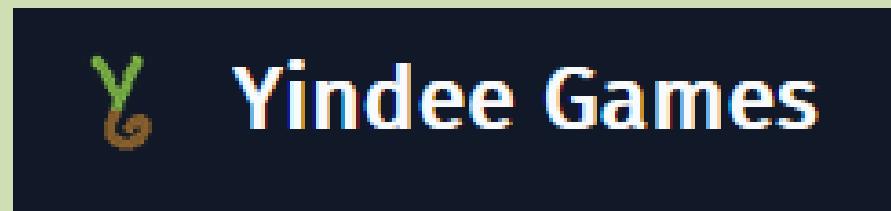
omg, climate crisis :(

wow! Much tarrible puns

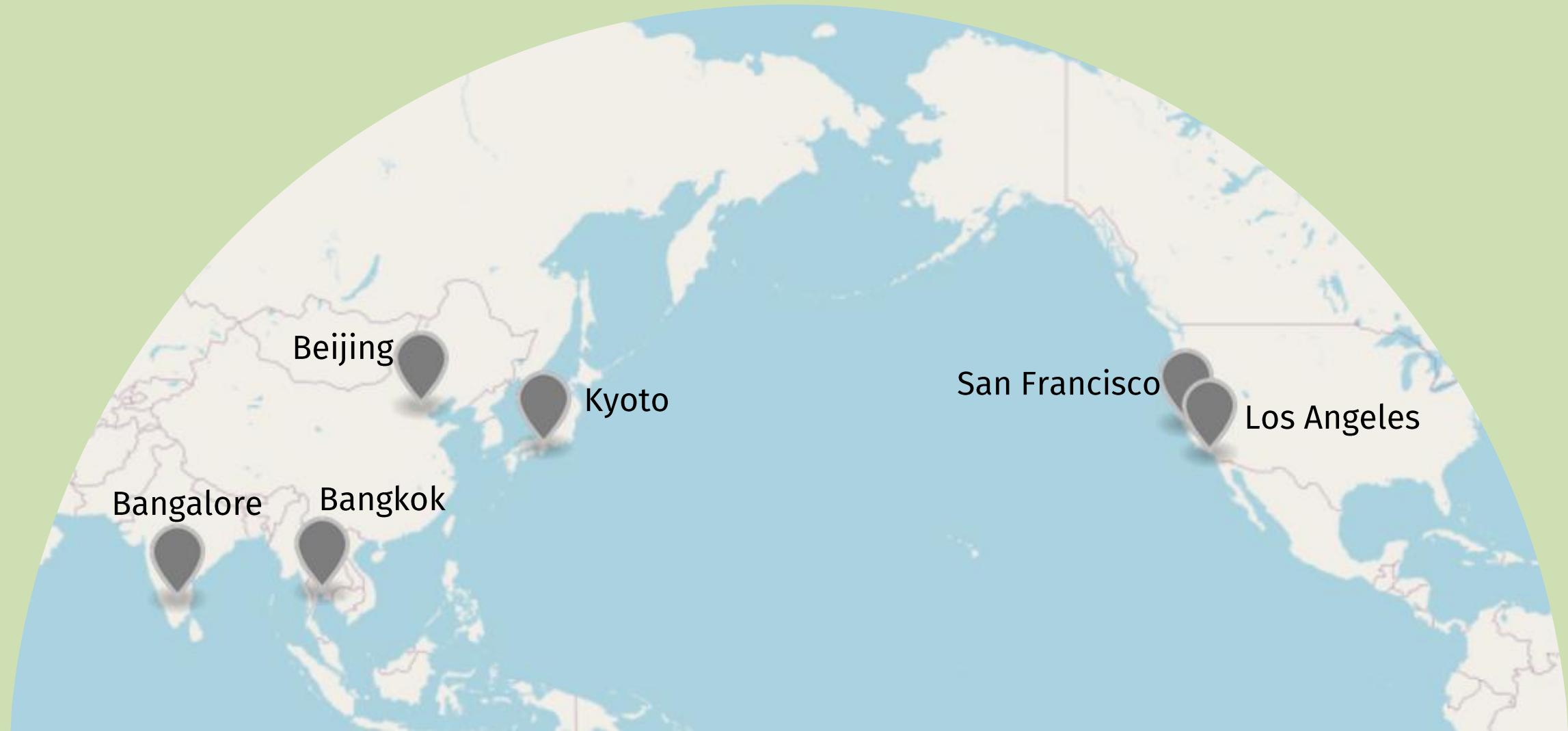
made in san francisco

game dev

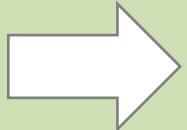
About me person**AL**ly



About me person**AL**ly



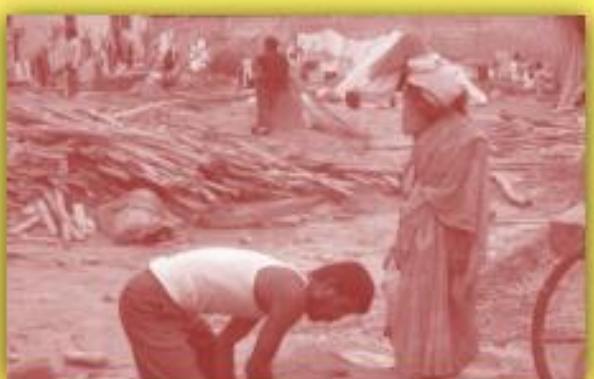
About me “profession**AL**ly”



wHAT that really means is.....



I wear many **HATs**









Jane Map

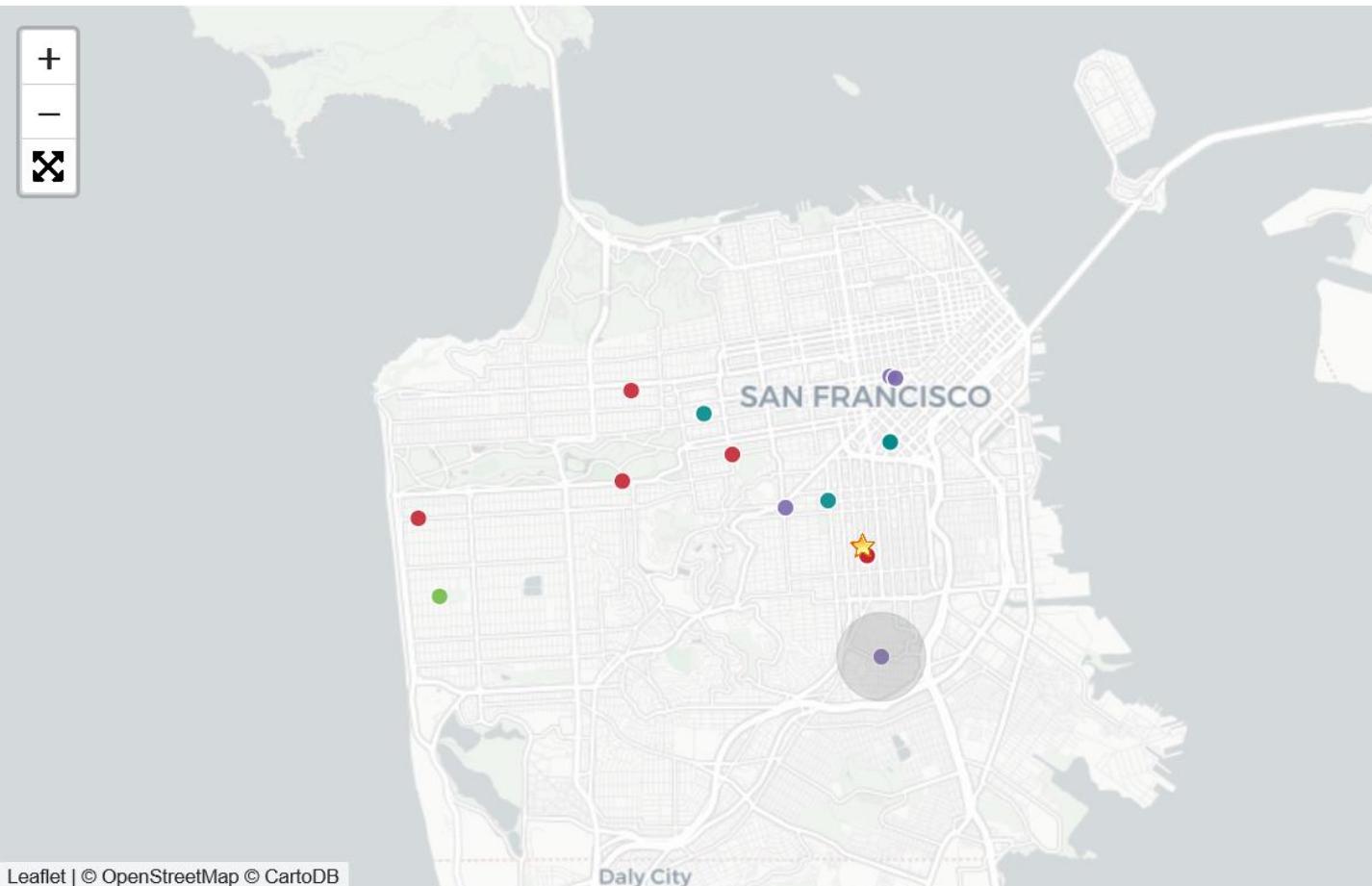
Let's get started on electing a progressive mayor for San Francisco.

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

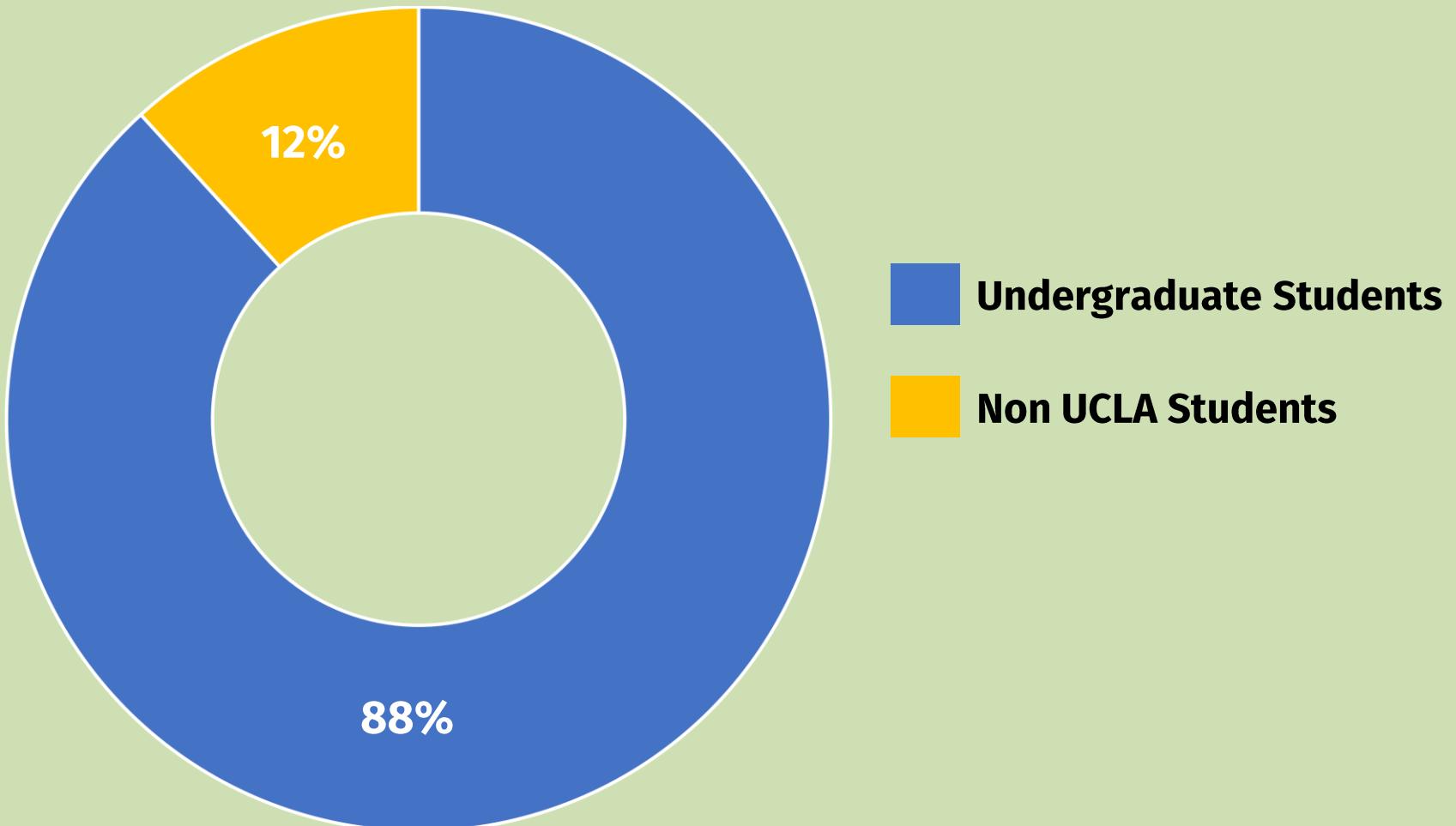
RSVP

Get Directions

What type of web application we will be making!

About you

About you: Enrolled Student Status



What you like to do!

traveling

do stunts

wushu club

tennis

bake

films

cello

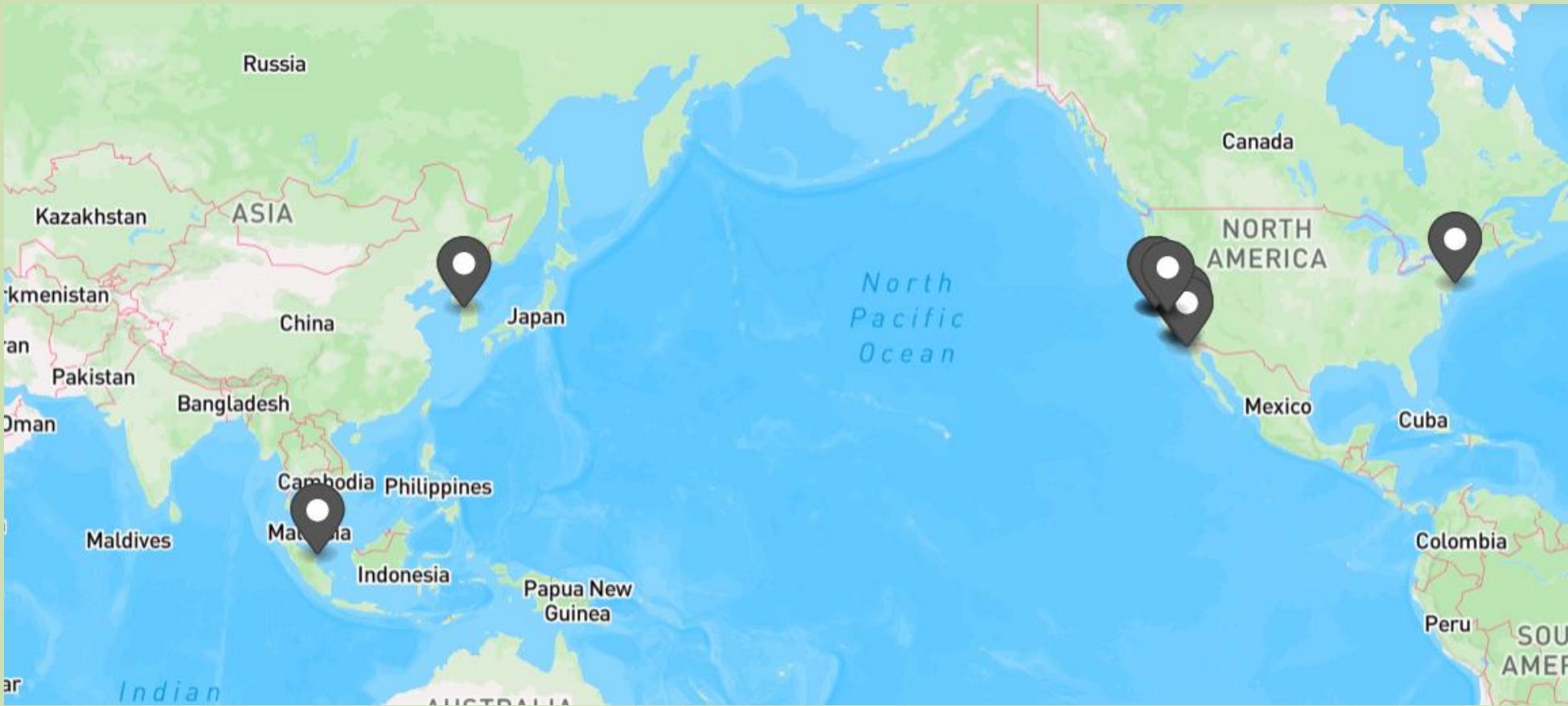
draw

Angry Birds impression.

journaling
playing classical guitar

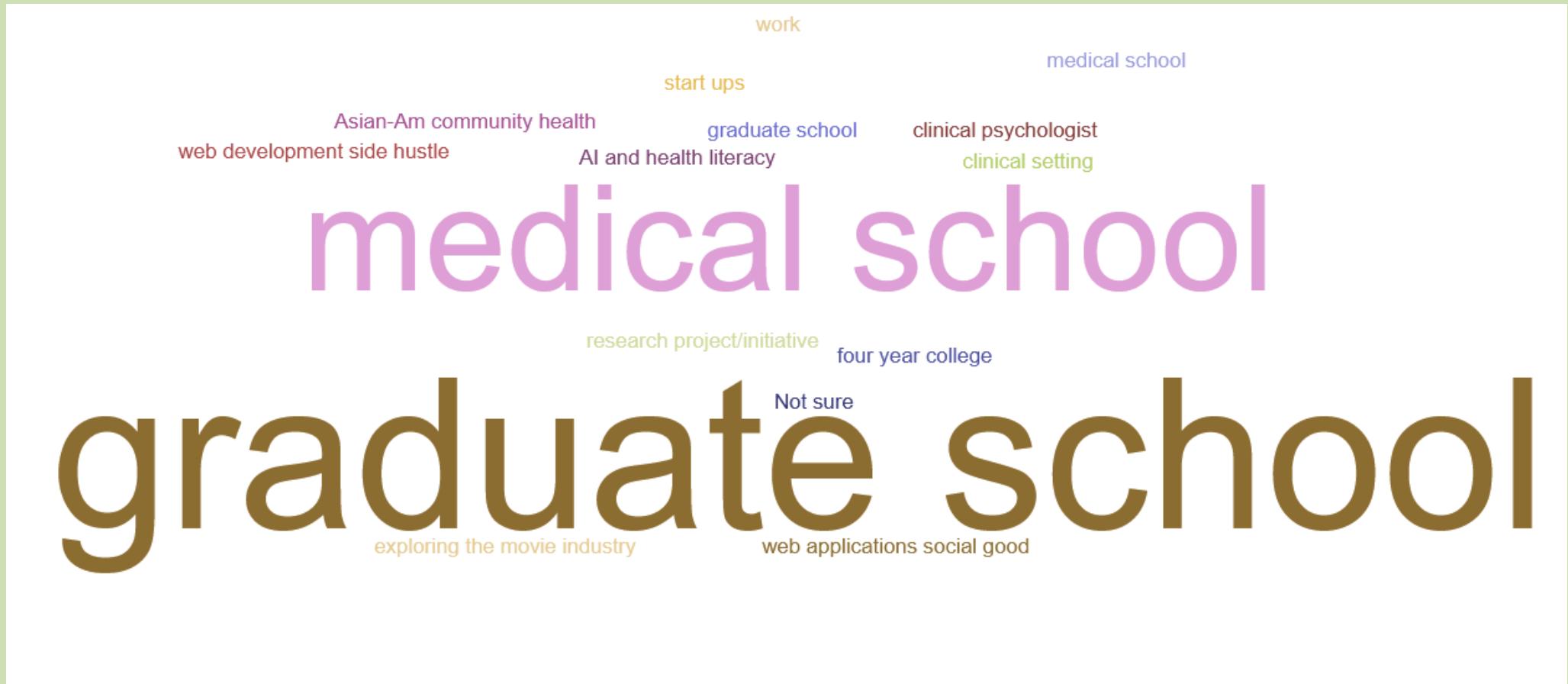
Variety of art: film, drawing, music

Students Locations



Students are mainly in California or Asia

Post-Graduation Plans



Quite a few people mentioned finding **meaningful** work!

About you! GIS

What is your familiarity with GIS? 

13 (76%): **None, the course title was the first time I heard about GIS**

4 (24%): Some, I got the GIST of it and I can make some maps

0 (0%): No response

0 (0%): Lots, you can say I am a spatial GenluS!

Majority do not have GIS experience

About you! Data

What is your familiarity with cleaning data? 🧹

10 (59%): **Some, I've cleaned up data before and made some charts**

7 (41%): None, is that a Star Trek character?

0 (0%): No response

0 (0%): Lots, you can find spreadsheets on my toast because they are my jam.

But most people are coming in with some data experience!

About you! Civil Society

What is your experience with civil society? ➡️📋

11 (73%): **Some, I have done things like volunteering at a non-profit before**

2 (13%): None, isn't society already civil?

2 (13%): Lots, you can say I put the PRO in protests.

0 (0%): No response

Majority have either some or no experience with civil society!

About you: Civil Society Groups



Majority of volunteer organizations connected through UCLA

About you! Coding

If you have programmed before, how comfortable are you with it? 🧑

8 (47%): **Some, I have written code before, but it's kind of intimidating.**

5 (29%): I have no experience, so I cannot say.

4 (24%): Pretty comfortable, I enjoy it.

0 (0%): No response

0 (0%): 0x49276D20686578616700642061742069742E (I'm hexagood at it)

Coding is intimidating (for me as well!)

About you! By you!

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

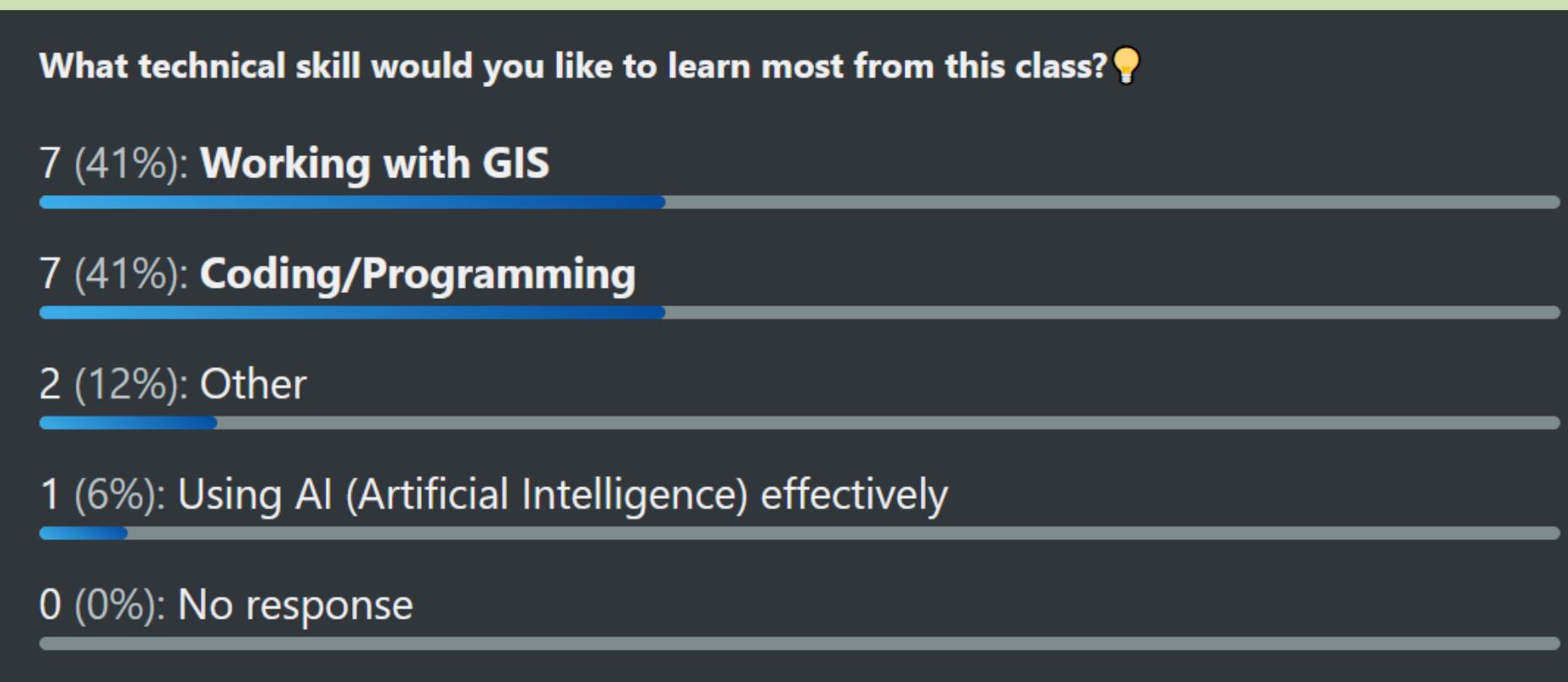
Name

Major

Favorite Map

Start by raising your hand in the chat! 

One more thing, about you!



This is a programming focused class!!

About the Course

Details

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:

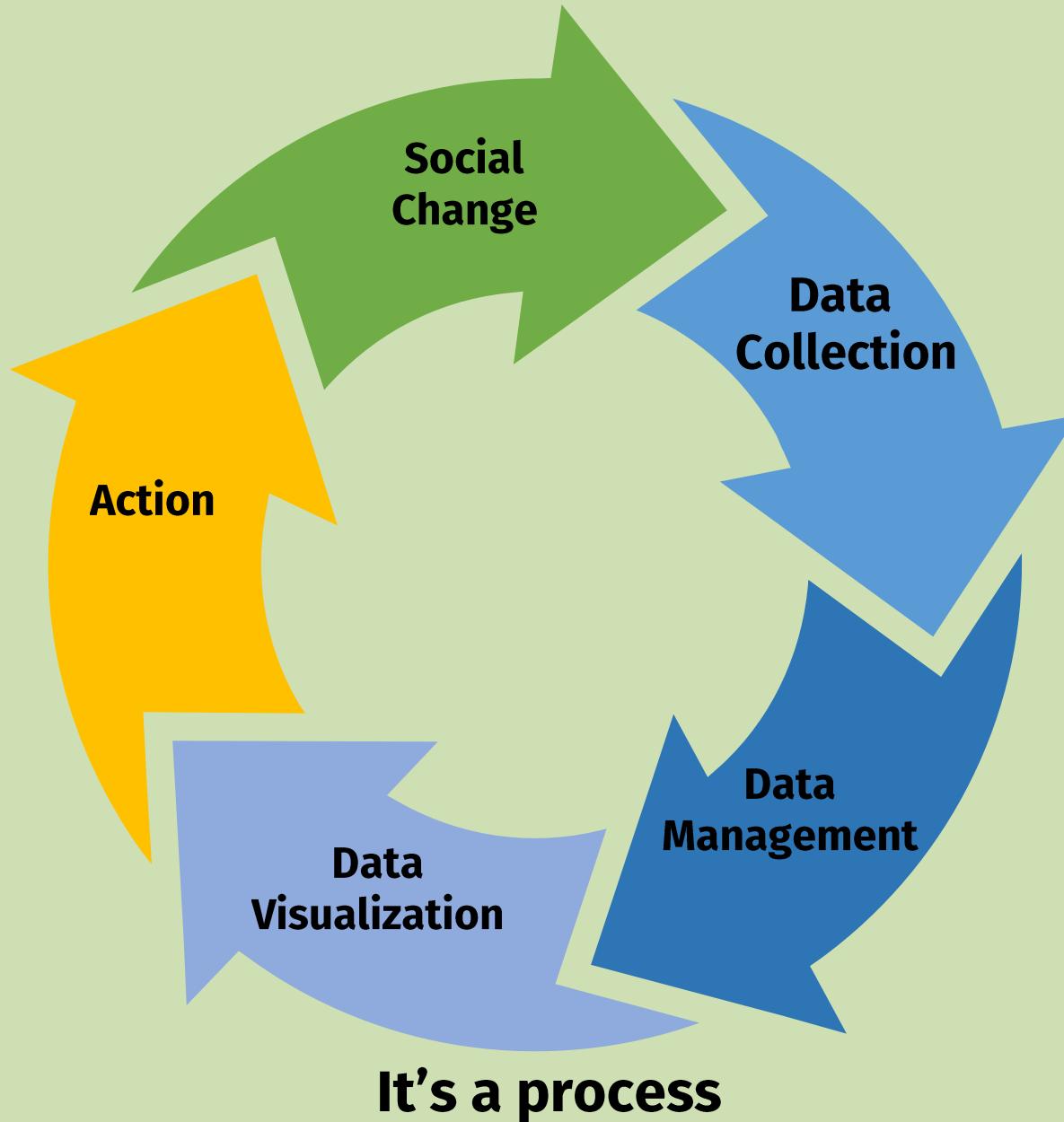
I HAVE NO IDEA WHAT I AM DOING





THIS ISN'T SO RUFF

What is this course?



What is this course?



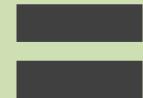
Ethics



Coding



Mapping



Social Change

What is this course, really?



Another 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 away
jihad water 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

About the Course

Details

General Course Structure*

Mondays



Wednesdays



Lecture



Discussion

Lab



Course structure may shift around
i.e. Labs can occur Mondays

Assignments

Individual



Readings

Weekly

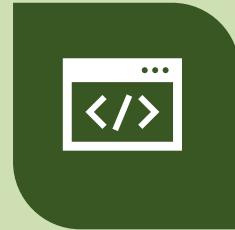


Labs



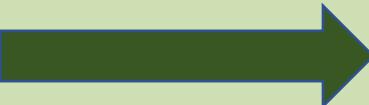
Posts

Group



Project Milestones

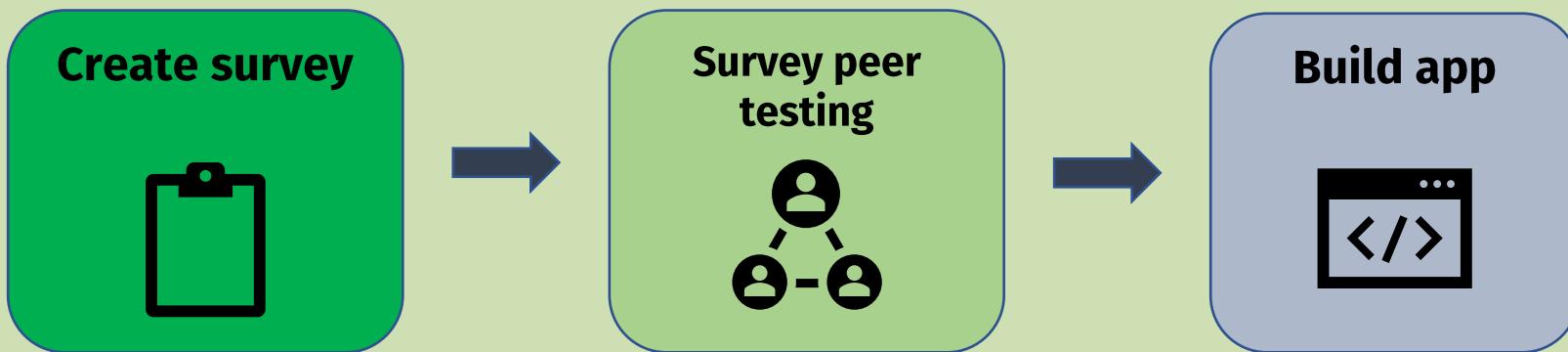
Intermittent



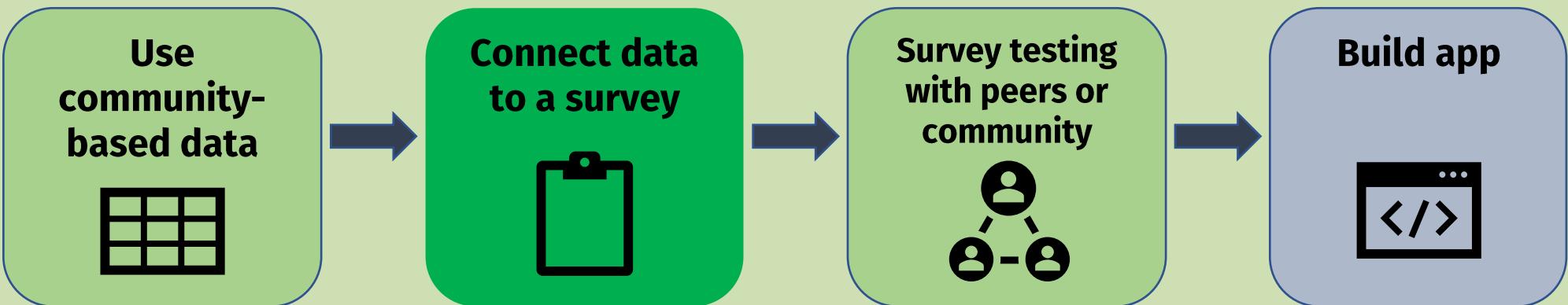
Final Project

Final Group Project

Option A:



Option B:



Past Student Projects

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

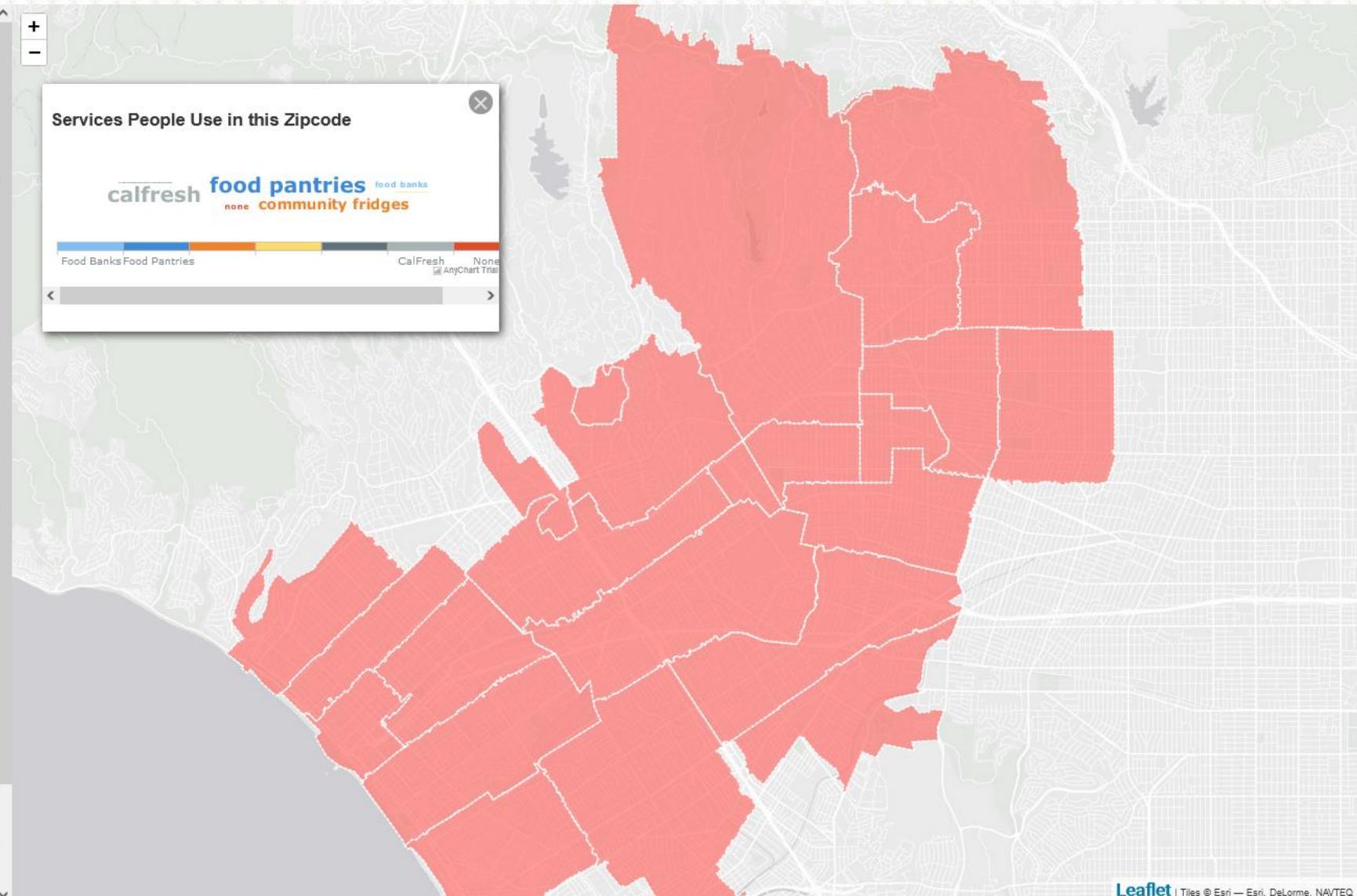
Reasons for Use:

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



circa. 2021

Reimagine 6th Street

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

Select Language

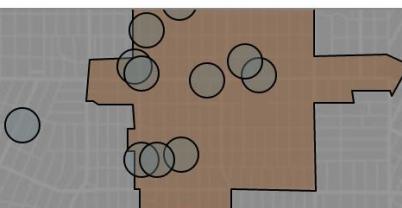
Powered by  Translate

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%

circa. 2021



Barriers Across Borders

[Home](#)[About](#)[Survey](#)

Access to Opportunity: Barriers Faced by International Students From Across U.S. Borders



circa. 2022

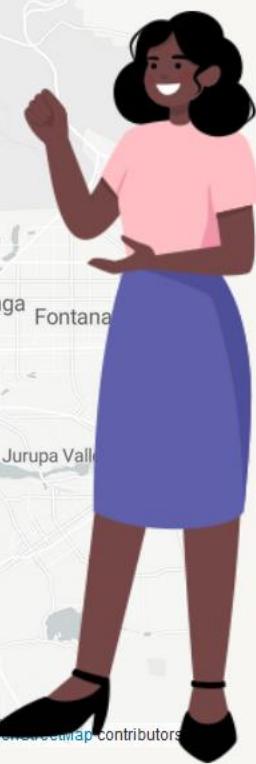
GIRLS JUST WANT TO HAVE FUN:

Female UCLA Faculty & Staff Work-Life Balance

CAREGIVER ⓘ



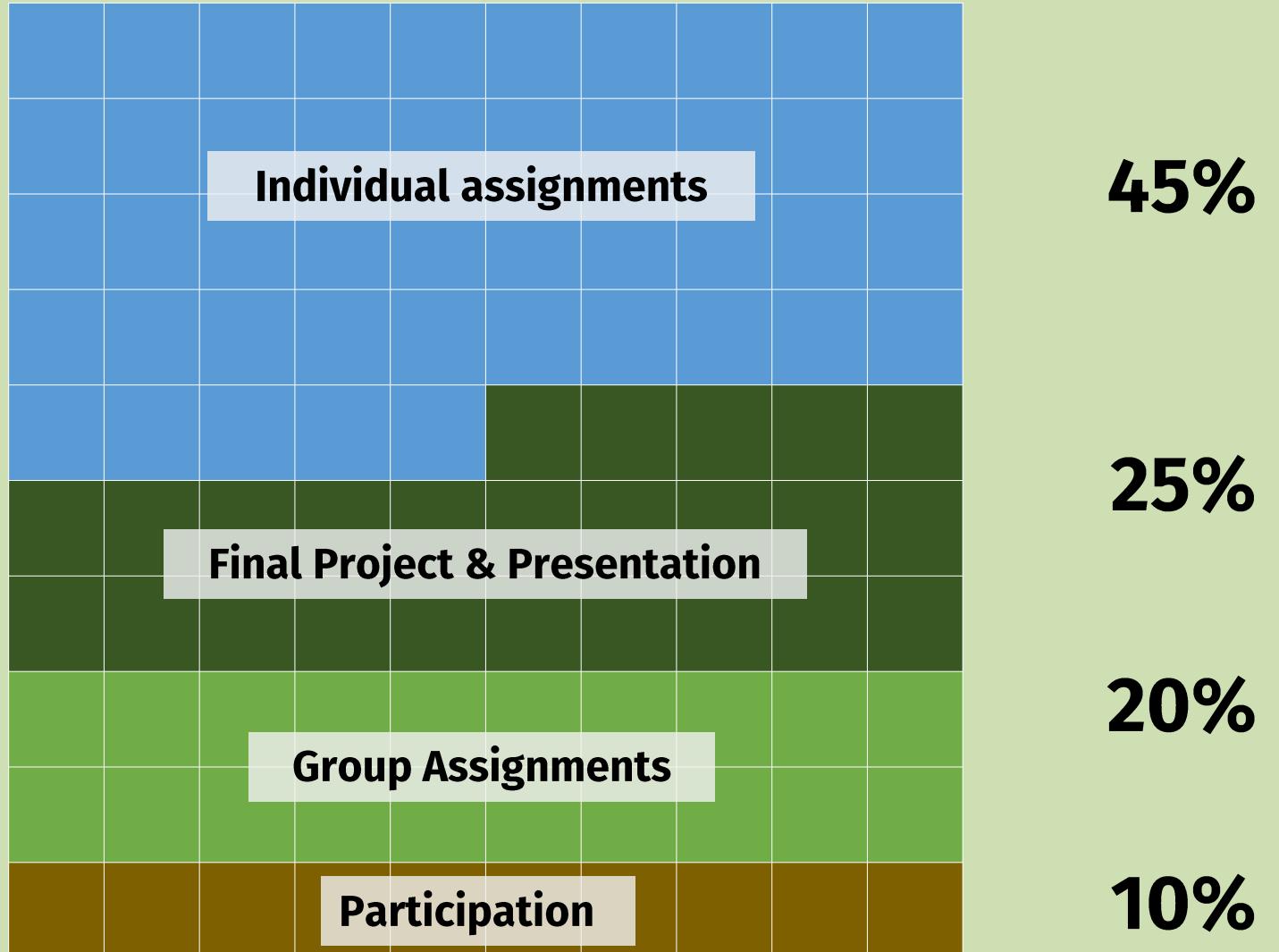
NON-CAREGIVER ⓘ



right (2023)

circa. 2023

Evaluation



About the Course

Class website and syllabus

We will be using GitHub exclusively

The screenshot shows the homepage of the course website. At the top, there is a blue header bar with the course name "AA191A-Web Development and GIS for Social Change". Below the header, there is a navigation bar with links for "Home", "Weekly Materials", "Assignments", "Labs", "Discussion", "Syllabus", and "Help". On the right side of the header, there is a search bar and a GitHub icon. The main content area has a white background. On the left, there is a "Home" link. In the center, the word "Home" is displayed in a large, bold, dark gray font. On the right, there is a "Class Links" link. Below the "Home" text, there are three buttons: "Discord Chat" (blue), "Deploy Documentation" (gray), and a green button that is partially visible. At the bottom of the page, there is a welcome message: "Welcome to the course website where you can find all the material for Asian American Studies 191A. Remember to use the Discord 🐹, GitHub discussion board 💬, email 📧, or utilize office hours if you have any questions!"

<https://albertkun.github.io/24SU-ASIAAM-191A/syllabus/>

Lost? Weekly Materials is your friend!

The screenshot shows the homepage of a course website. At the top, there is a blue header bar with the course title "AA191A-Web Development and GIS for Social Change". On the left of the header is a circular logo with "191A ASIAN AMERICAN" text. On the right are icons for GitHub (with 1 star and 0 forks), a search bar, and a refresh button. Below the header is a navigation menu with links: Home, Weekly Materials (which is highlighted with a red box), Assignments, Labs, Discussion (with a new message icon), Syllabus, and Help. The main content area has a light gray background. It features a "Home" link on the left, a large "Home" title in the center, and a "Class Links" link on the right. Below the title are three buttons: a blue "Discord Chat" button, a white "Deploy Documentation" button with a green "passing" status indicator, and a green "Office Hours" button. A welcome message reads: "Welcome to the course website where you can find all the material for Asian American Studies 191A. Remember to use the Discord 🎵, GitHub discussion board 💬, email 📧, or utilize office hours if you have any questions!"

Weekly materials is your reference for the week!

Weekly Materials Summary

AA191A-Web Development and GIS for Social Change

Home Weekly Materials Assignments Labs Discussion Syllabus Help

Weekly Materials

Summary

Week 1 - GIS, Data, and Ethics

Weekly overview

Week	Topic
#1	GIS, Data, and Ethics

Course Materials

Week	Title	Content	Slides	Recording
1	Introducing the course, GIS, data, and ethics	Lecture	TBD	TBD

Navigate to the week we are on, by choosing A or B

Weekly Materials has it all!

The screenshot shows a course website with a blue header. The header includes the course name "AA191A-Web Development and GIS for Social Change", a search bar, and a GitHub link. Below the header, there are navigation links: Home, Weekly Materials (which is the active page), Assignments, Labs, Discussion, Syllabus, and Help.

The main content area is titled "Week 1 - GIS, Data, and Ethics". On the left, there's a sidebar with "Weekly Materials" and "Summary" sections, and a link to "Week 1 - GIS, Data, and Ethics".

A red arrow points from the "Weekly Materials" section in the sidebar to the "Lecture" row in the table below. Another red arrow points from the "Summary" section in the sidebar to the "Lab" row in the table below.

Date	Type	Description	Slides	Recording
4/4	Lecture	Introducing the course, GIS, data, and ethics	TBD	TBD
4/6	Lab	GITting Used to Web Development and JavaScript	TBD	TBD

Links to the slides, recordings, lab, and assignments are listed

Course Outline

Week	Lectures	Labs
4/4	GIS, Data, Ethics	GitHub, HTML, CSS, JavaScript
4/11	Critical Cartography and Civil Society	HTML, CSS, JavaScript
5/2	Society, Technology, and Ethics	HTML, CSS, JavaScript
5/9	Designing for Civil Society	GitHub and HTML, CSS, JavaScript
5/23	Mentorship and Collaboration	HTML, CSS, JavaScript
6/4	Beyond Web Development and Social Change	HTML, CSS, JavaScript

= Visiting Voice (time permitting!)

Course Software Requirements*



– completing assignments



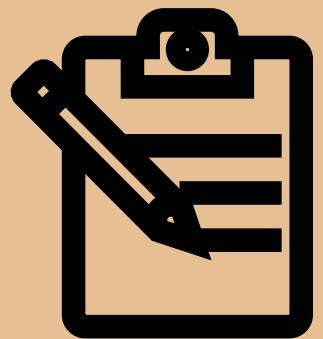
VS Code – writing code



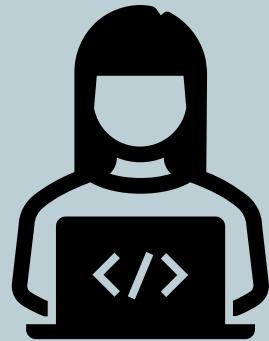
Firefox – web debugging

*** You may freely use other software, but it will not officially be supported**

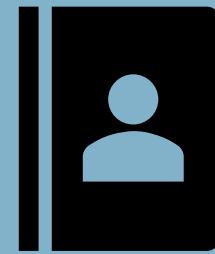
Labs



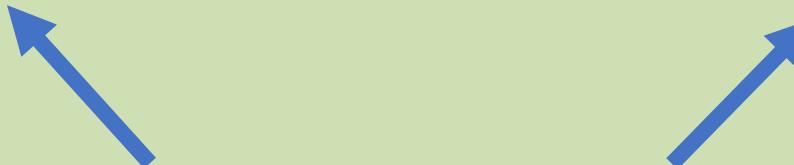
Pre-Labs



In-Class Lab

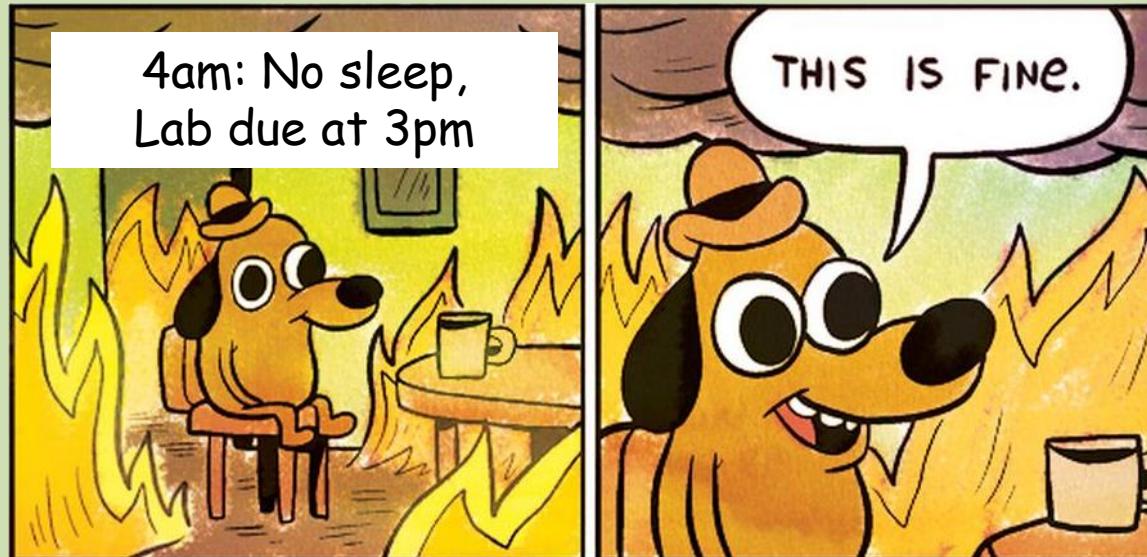


Lab Assignment



Homework

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/59BQrnFbhq>

- **GitHub Discussions**

<https://github.com/albertkun/24SU-ASIAAM-191A/discussions/>

- **Drop by office hours**

- [After class](#)

- [Online: https://calendly.com/aa191a/office-hours](https://calendly.com/aa191a/office-hours)

- **Email the instructor**

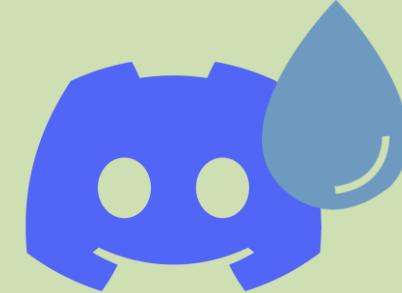
albertkun@oarc.ucla.edu

The screenshot shows the Stack Overflow interface for the course AA191A-Web Development and GIS for Social Change. The navigation bar includes links for Home, Weekly Materials, Assignments, Labs, Discussion (which is highlighted with a red box and has a red arrow pointing to it), Syllabus, and Help. Below the navigation bar, there's a summary section for Week 1 - GIS, Data, and Ethics.

The screenshot shows a Calendly booking page for Albert Kochaphum's office hour. The page title is "Albert Kochaphum Office Hour". It indicates a 20-minute slot available on April 4, 2023, at 2:00 PM. The page also includes a note: "Meet to discuss course work, lab software, lab materials, group projects, or any other general inquiries." The page is powered by Calendly, as indicated by the logo in the top right corner.

Discord(er)ly Conduct

- **Use appropriate channels**
- **Use your real name**
- **Respect others time
(don't expect a quick response)**

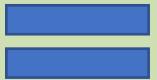


<https://discord.gg/59BQrnFbhq>

**If you don't post in the right place or use your name,
I cannot give you credit for participating!**

Goals for helping

Getting help



Participation

Giving help

Trying to create an active learning environment for everyone.

Core Principles in summary:



About the Course

Questions?

GIS, Data, and Ethics

Welcome

GIS
Data
Ethics
Discussion
Assignments

Albert Kochaphum
Lecture 1 | June 24th, 2024

GIS, Data, and Ethics

GIS



GIS
Data
Ethics
Discussion
Assignments

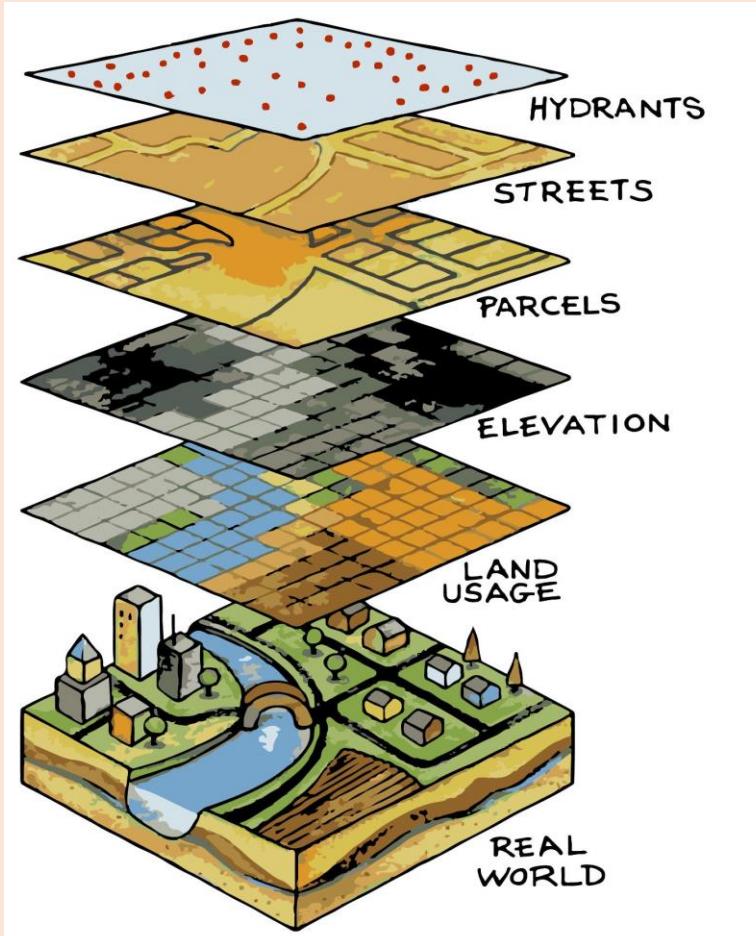
What is GIS?

A) Geographic Information Systems

or

B) Geographic Information Science

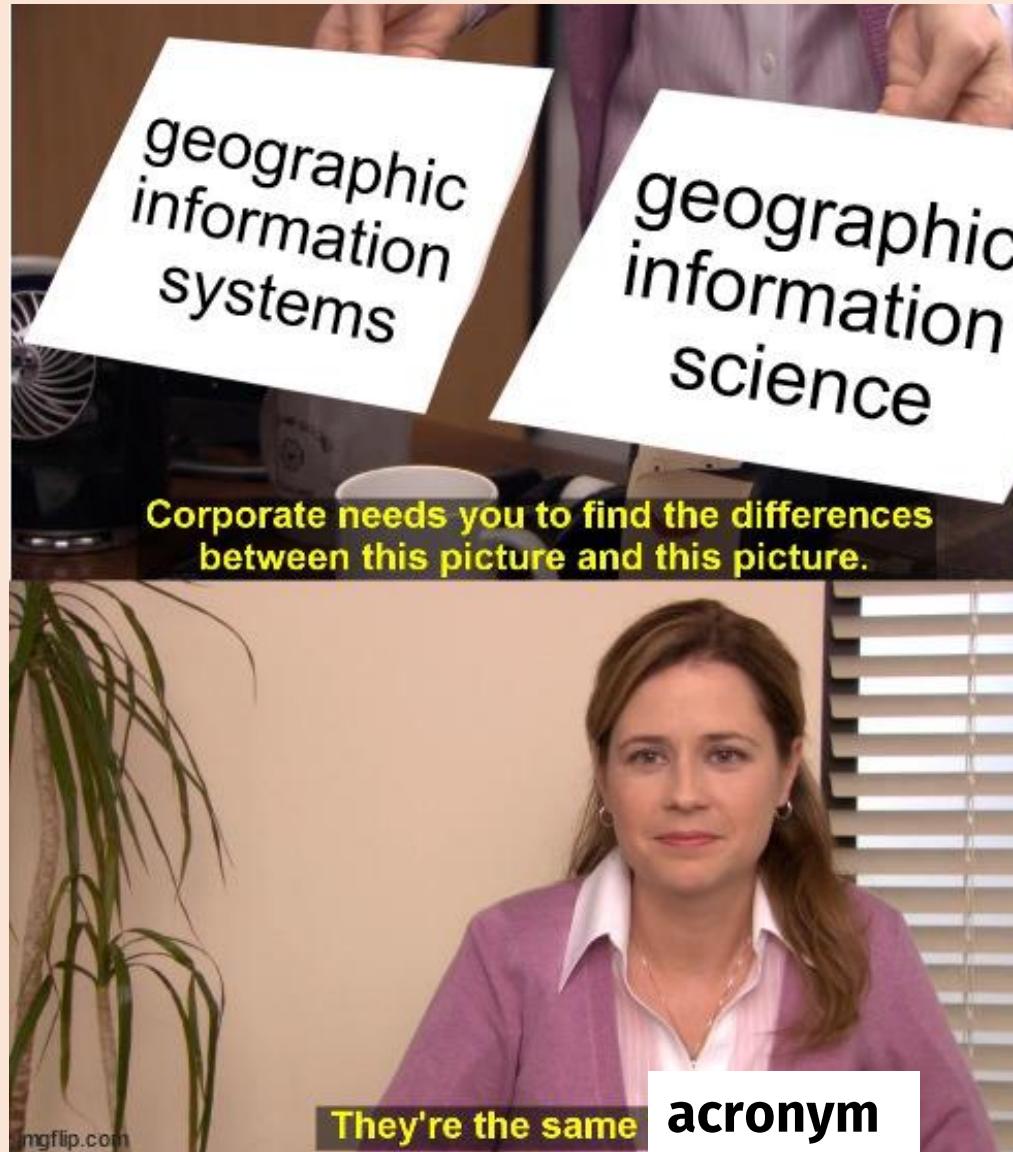
What is GIS?



With GIS, data is layered with time and space

Source

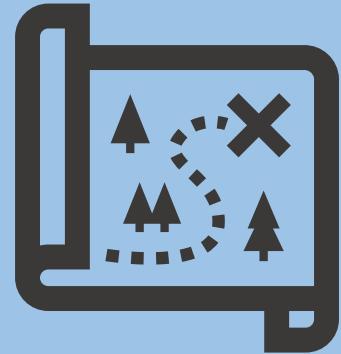
What is GIS?



What is GIS?

GISystems

=



Spatial tools

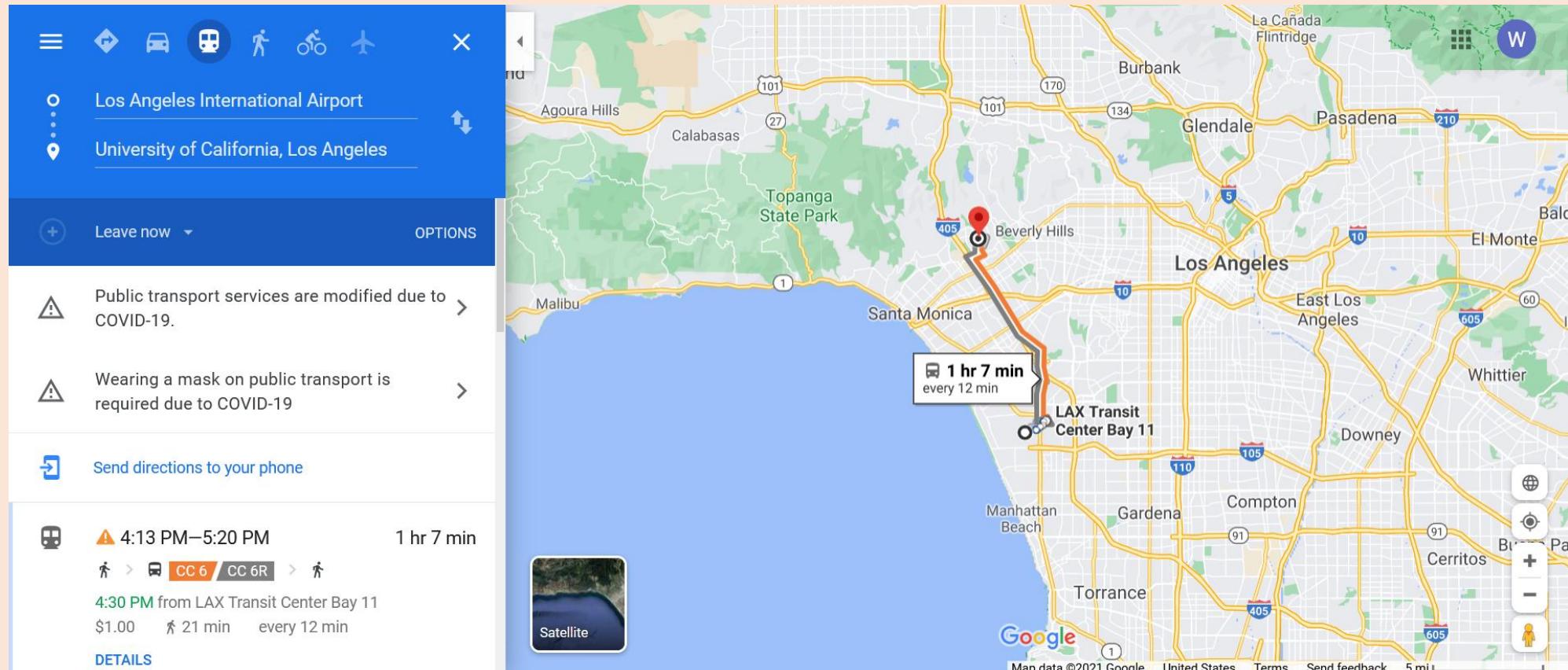
GIScience

=



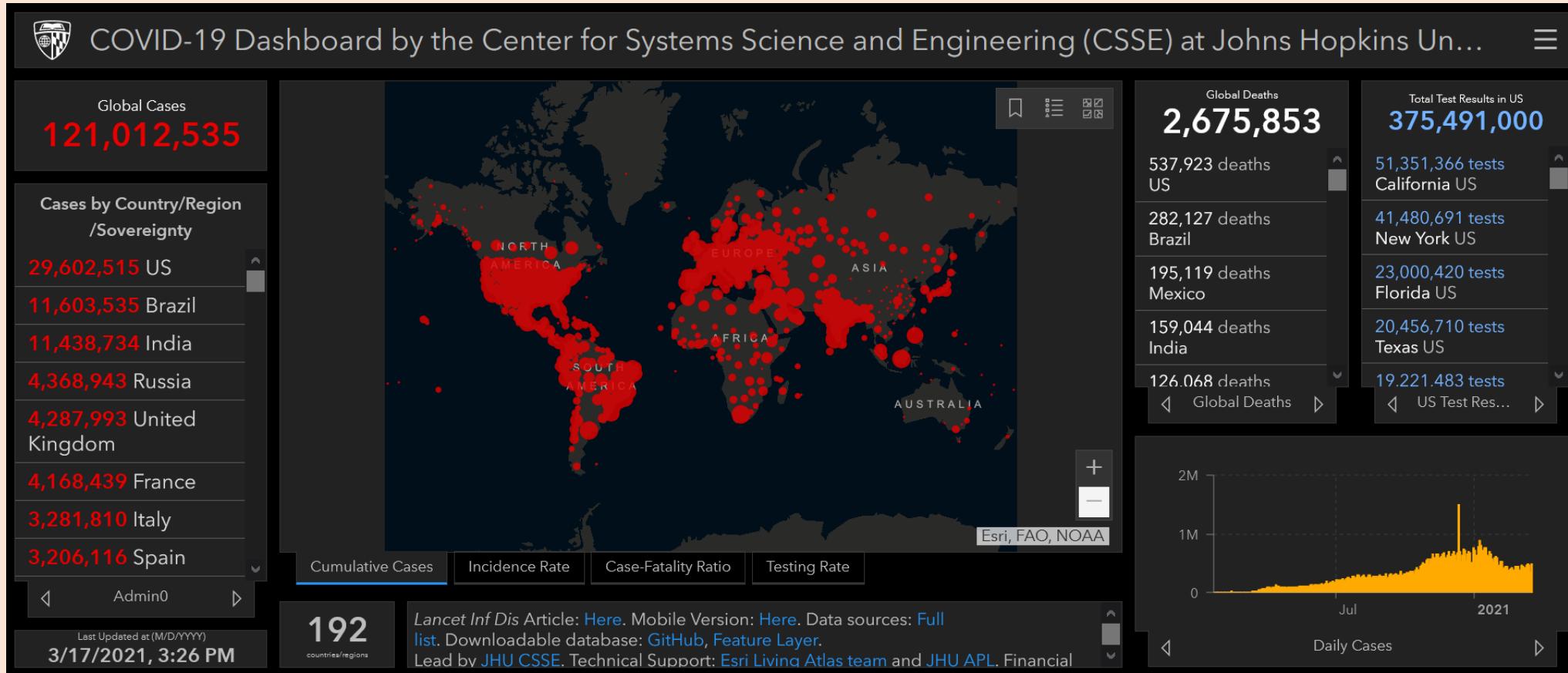
Spatial thinking

Examples of GIS



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

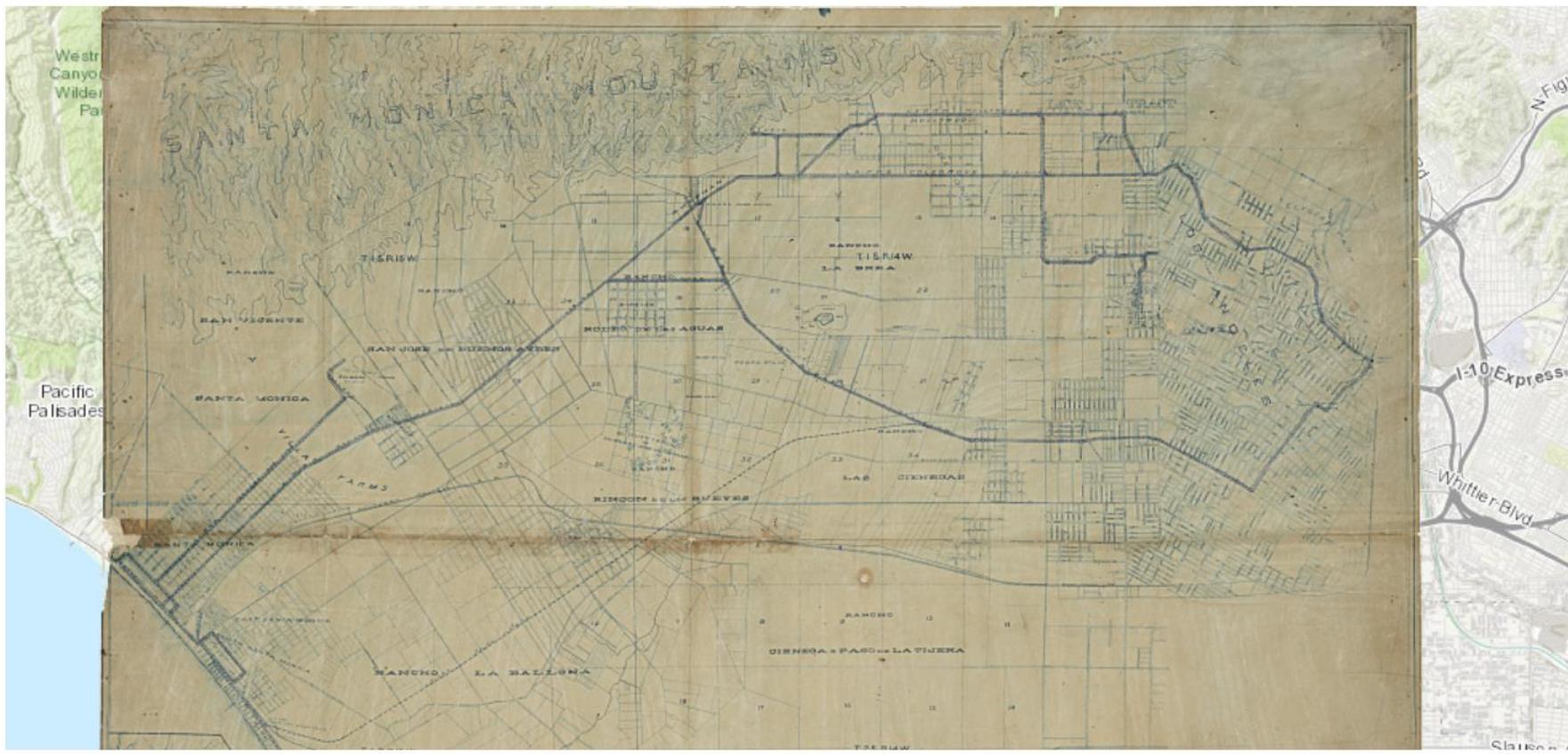
Examples of GIS



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

Are historical maps GIS?

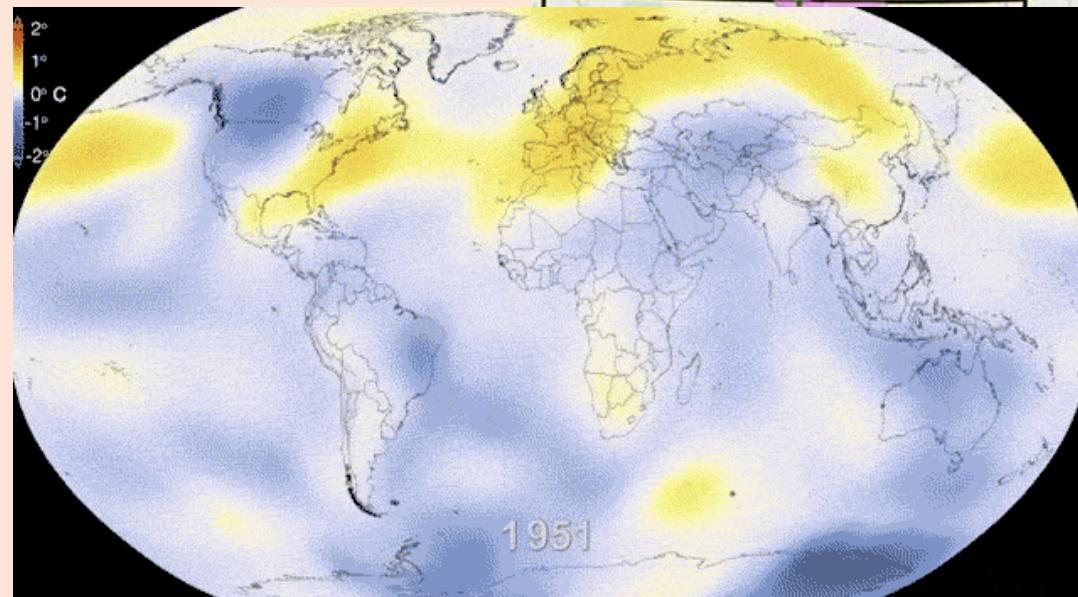
Map of the Los Angeles-Pacific R.R.



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

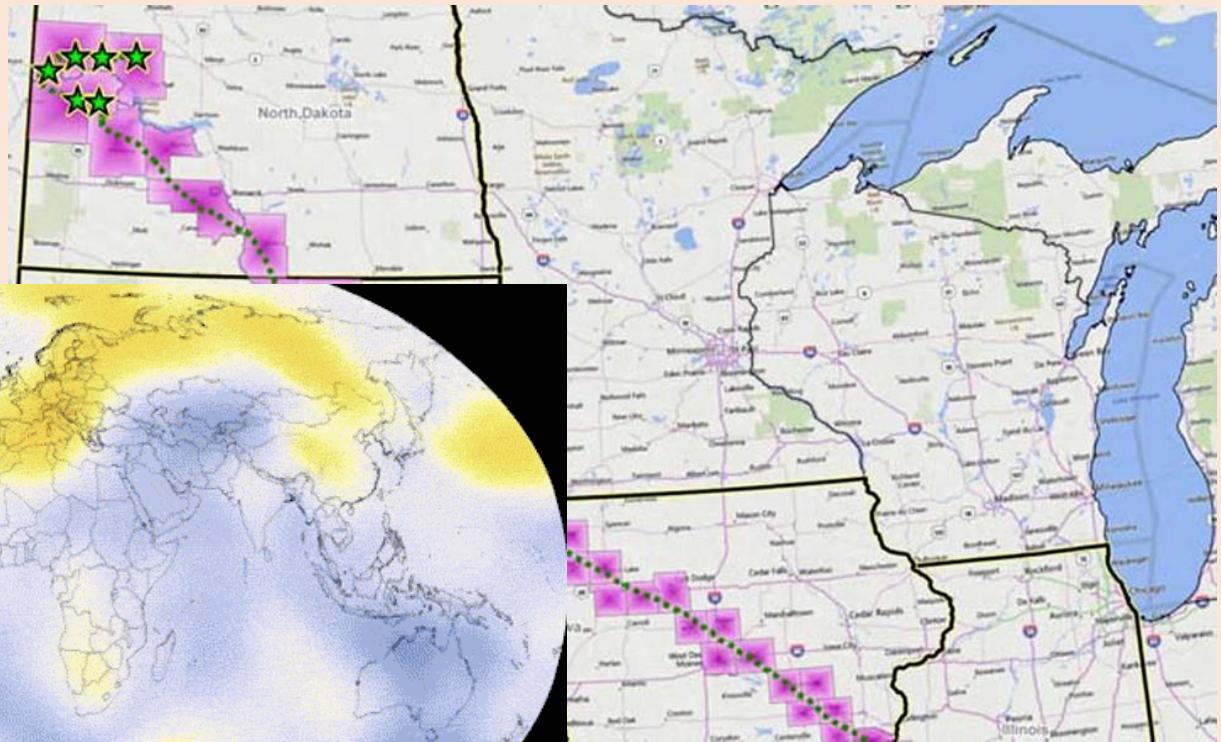
GIS exists in various forms

It can empower



Global Temperature Increase

It can disempower



**Dakota
Access Pipeline**

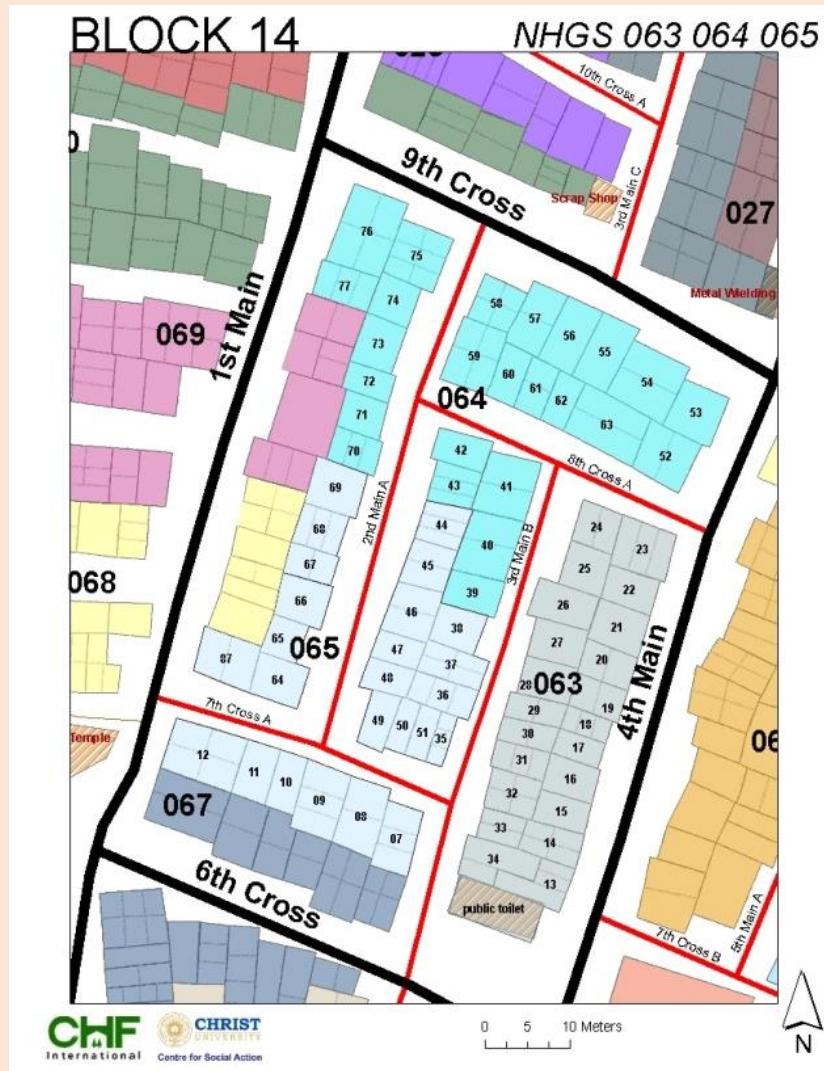
Participatory GIS/Community-Based GIS

	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			
TRANSFORMATIV E	Facilitate sustainable development by local people	Facilitator /catalyst	Analyst /Actor /Agent			
SELF-MOBILIZING	Support spontaneous action	Supporter	Owner /controller	Support	Initiate	Local people's

Our Focus



Participatory GIS/Community-Based GIS



GIS, Data, and Ethics

Data

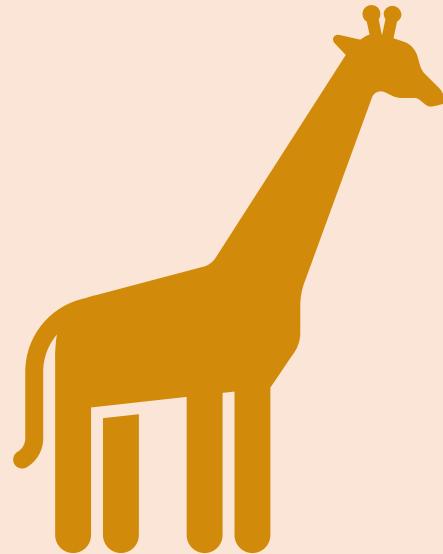


GIS
Data
Ethics
Discussion
Assignments

Types of Data



Types of Data



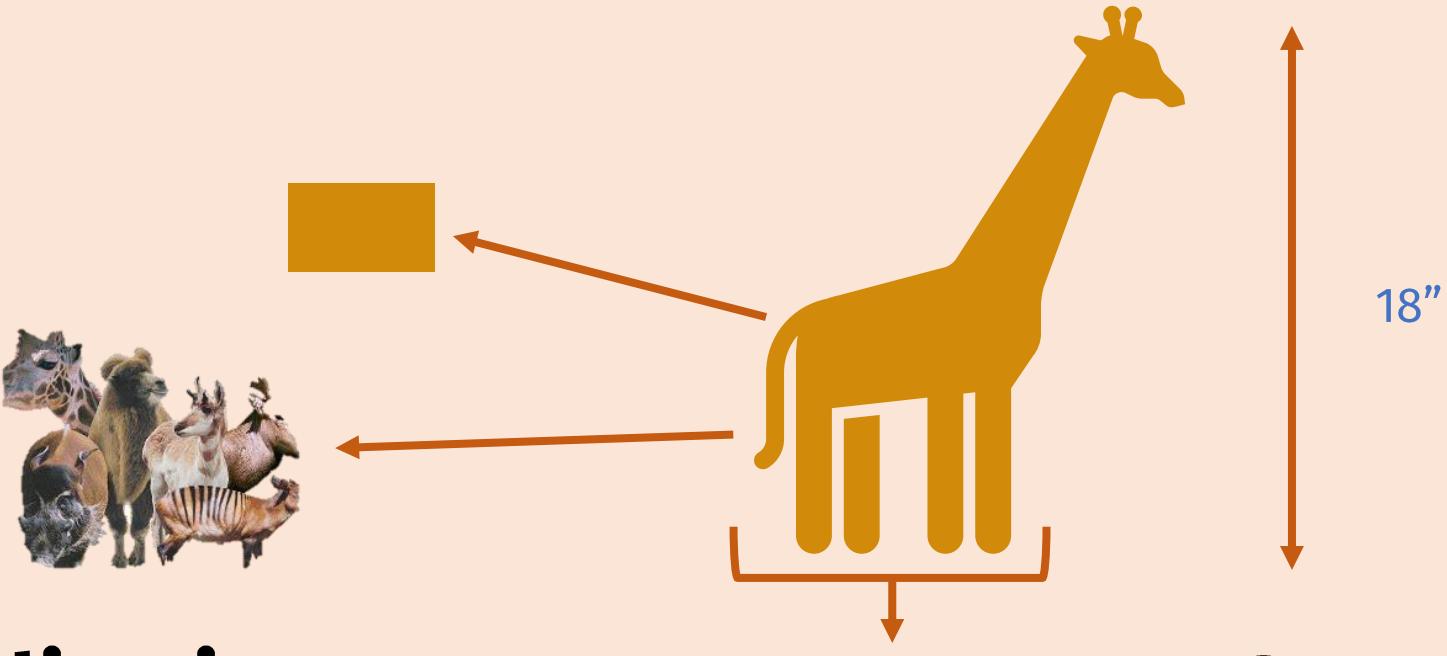
Qualitative

- Data that describes the **qualities** of something

Quantitative

- Data that can be summarized into **quantities**.

A giraffERENCE point for data types



Qualitative

- Color (Yellow)
- Species order (Artiodactyla)
- Species odor (pleasant)

Quantitative

- Height (5.5 meters)
- # of legs (4 legs)
- Taller than Data? (Yes)

Applying our knowledge!

Pre-Course Survey for AsianAm-191A!

Please fill out this survey for "AA-191A: Web Development and GIS for Social Change" at your earliest convenience but **no later than the first day of class (4/4/2023). No programming experience is necessary** for this course and this survey will be used to partner you up with other students based on your skills and subject of interest. Additionally, some of your answers will be summarized to help us learn about each other in the first week.

Remember to check the syllabus to learn more about the course before responding:
<https://albertkun.github.io/23S-ASIAAM-191A/syllabus/>

Responses are anonymous. An asterisk (*) indicates mandatory questions.

Full Name *

How would you like to be referred to? 

Enter your answer

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

Applying our knowledge!

What department, major, or field of concentration are you? *

 You can also share if you have a minor or double major  

Enter your answer

Please share something about your background and/or interests. *

This can be hobbies or things you enjoy!    

Enter your answer

What are your goals after graduating UCLA? *

Can be as brief or long as you'd like!  

Enter your answer

Qualitative

What is your experience with civil society? *

- None, isn't society already civil?
- Some, I have done things like volunteering at a non-profit before
- Lots, I put the PRO in protests.

What is your familiarity with GIS? *

- 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, I'm a spatial Genius!

Quantitative

Both qualitative and quantitative!

Critical Data Studies



Is Data perfect for solving social problems?



No!

In doing so, you assume social problems are:

Knowable

Controllable

Rational

Neutral

Technocratic

Objective

Non-ideological

Effects of a data only approach



Neglects those directly impacted by social problems.

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 icon. 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 United States with a callout for "Mapping Hate Crimes in the US #OneHateCrimeIsTooMany". Below the map, there's a blue banner with buttons for "SEE COVID HATE CRIMES" and "REPORT INCIDENT". A modal window is open, prompting the user to consider navigating to the COVID page if it's a COVID-related incident. The modal has two steps: 1. Harassment Location, which includes a text input field for "Enter location" and "NEXT" and "BACK" buttons; and 2. Date of Harassment, which is currently not visible. On the right side of the modal, there are left and right arrows.

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

1 Harassment Location

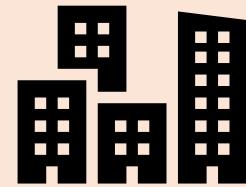
Enter location

BACK NEXT

2 Date of Harassment

Alternative data forms:

More Community based



Open Data



Humanitarian



Crowdsource



Participatory



Our
Focus

GIS, Data, and Ethics

Ethics



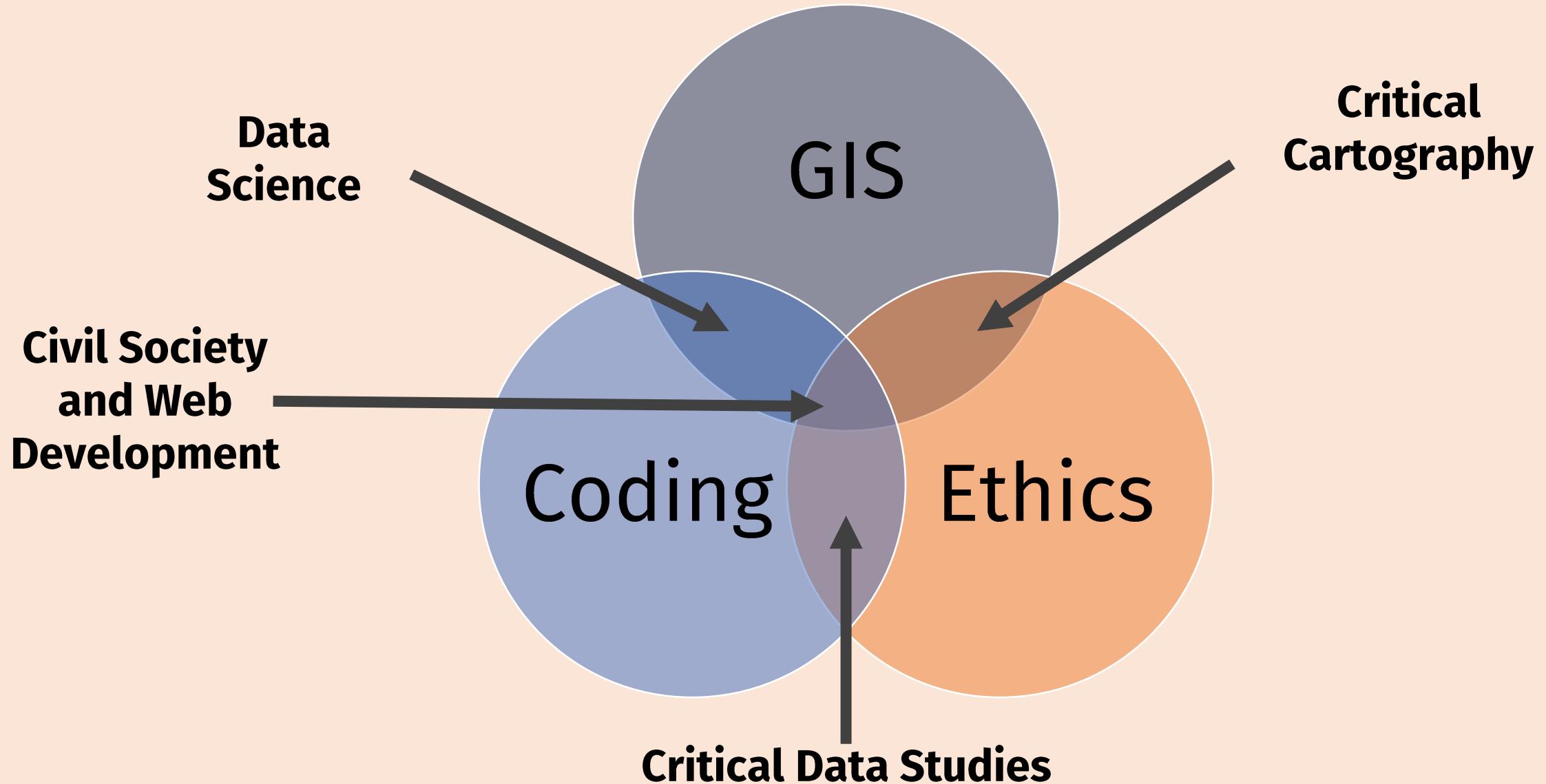
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Ethics

- 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.

GIS, Data, and Ethics

Discussion



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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/24SU-ASIAAM-191A/discussions/25>

GIS, Data, and Ethics

Assignments

GIS

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Assignments



Assignments

Complete the following:

Due Wednesday 6/26:

1. [Pre-Lab](#)

Due Monday 7/1:

1. [Weekly Reading #1](#) (10 – 20 minutes)
2. [Thinking Cap #1](#)

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

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Group Time

Finding members

Group Spreadsheet

Tenative Theme	Health Care	LGBTQ+ Intl'	Japanese	Palestine Encampment	Palestine Health	Transportation	Urban Planning	Health Care
Member 1	Agam	Chris	Keiya	Justine	Caitlynn	Leila	Michelle	Kiana
Member 2	Sachi	Kienna	Kaila	Gia	Jasmine	Ness	Sadhana	Paige
Member 3				Nellie				

1. Go here and find your name:

<https://tinyurl.com/24su-aa191-groups>

2. I will put everyone in their respective breakout rooms, to move around, message me!

During group time, feel free to:

- Change topics
- Move yourself around*
- Ask me questions
- Work on group assignment #1

***Note: Each group must have 2-3 people, so you may need to swap with another member to change groups.**

Group Assignment #1

1. Have one person **create a new repo** for the group and invite everyone as collaborators.
2. **Add a `readme.md`** to the repository that briefly describes the following in 1-2 sentences:
 - What social problem is being addressed?
 - Who is being empowered by your mapplication?
 - What technical and ethical problems could there be in developing this tool?
3. **Post your group members and repository on the discussion board!**

https://albertkun.github.io/24SU-ASIAAM-191A/assignments/week1/group_assignment/



Leaflet or MapLibre

MapLibre



Leaflet



BOTH!



Join at
slido.com
#ucla