

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



How are you feeling?

Join at
slido.com
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excited

Hot

good

okay

Happy

sweaty

great



How are you feeling?

Join at
slido.com
#ucla

excited

Hot

good

okay

Happy

sweaty

great



How was the pre-class survey? *

Just right



Needed more puns



Too long



Too short



What pre-course survey?



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Web Development and GIS for Social Change

Welcome

Welcome

Introductions

Lecture

Wrap-up

Today's Agenda

Introductions

Course details

Lecture

Discussion

Group Time



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 :(

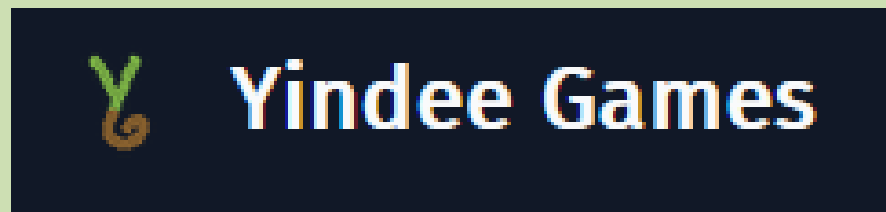
wow! Much tarrible puns

made in san francisco

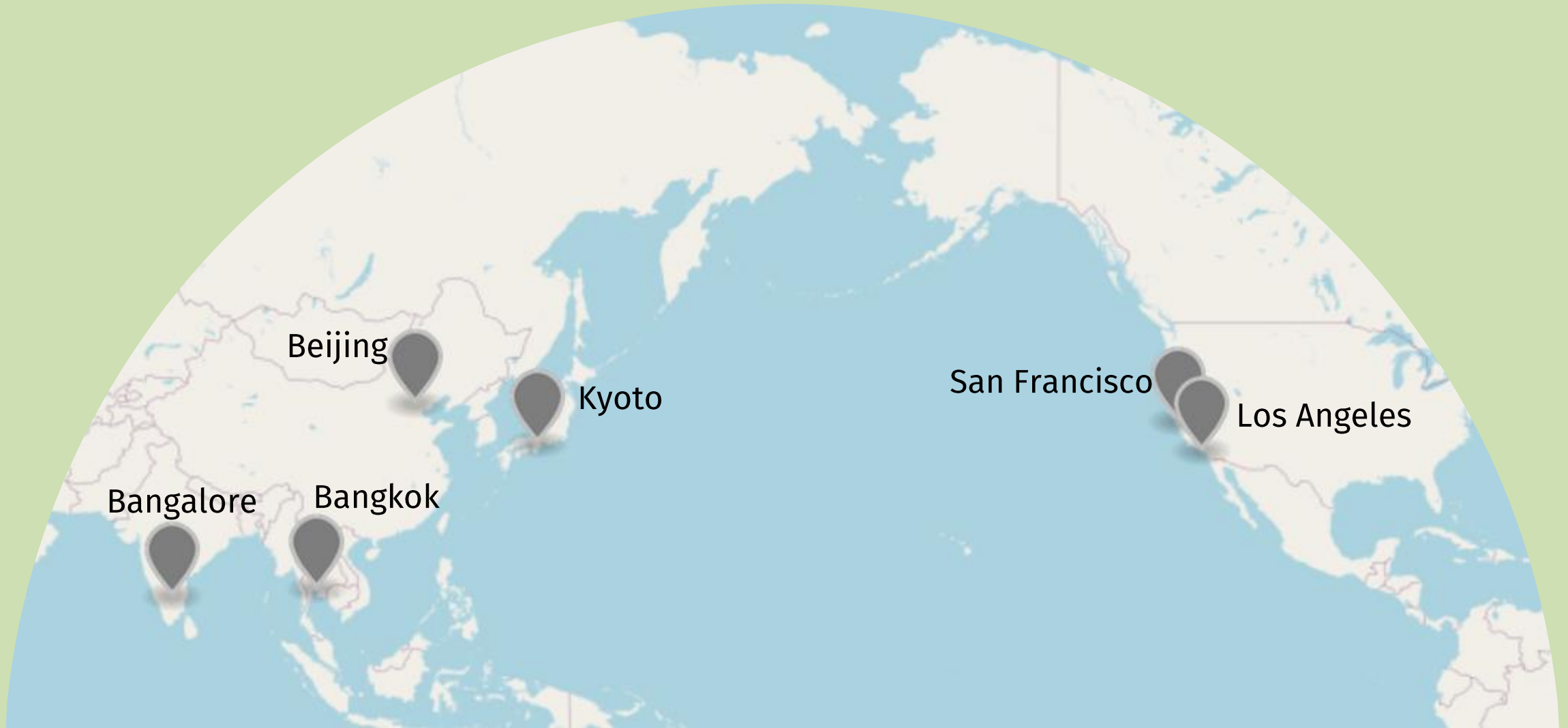
game dev



About me person**ALLY**



About me person**ALLY**



Bangalore

Bangkok

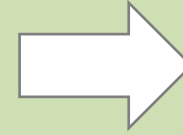
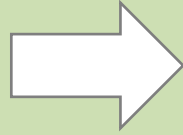
Beijing

Kyoto

San Francisco

Los Angeles

About me “profession**ALLY**”



wHAT that really means is....



I wear many **HATS**







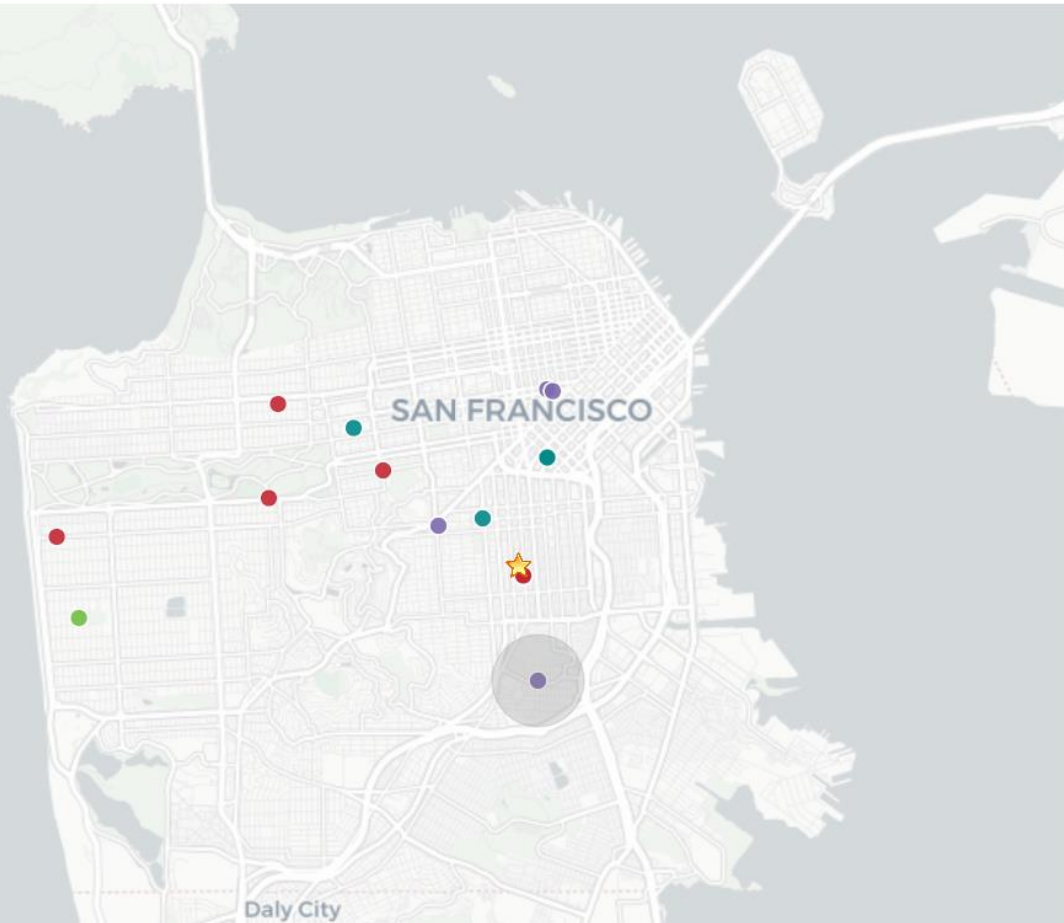


Jane Map

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



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

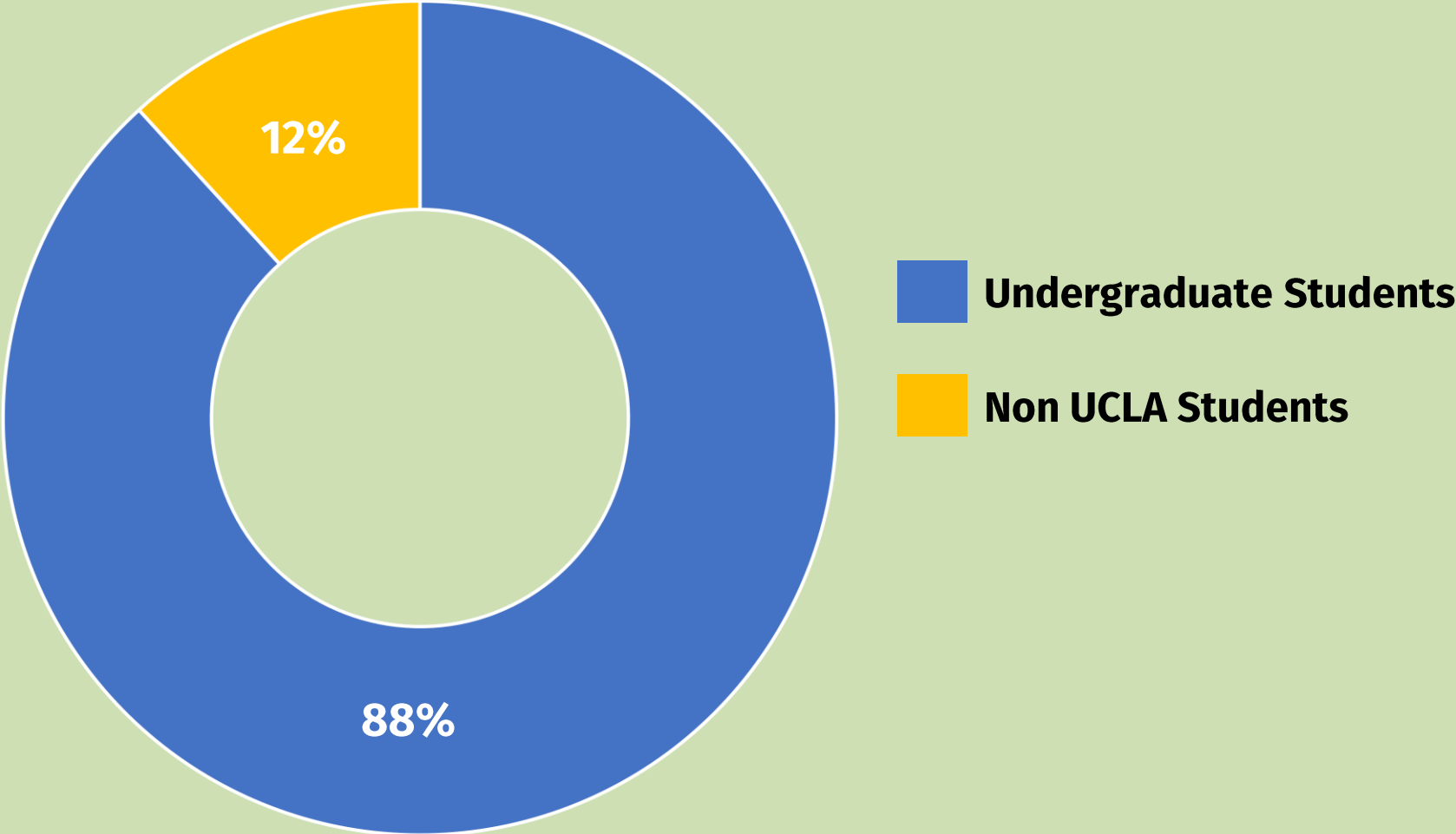
RSVP

Get Directions

What type of web application we will be making!

About you

About you: Enrolled Student Status

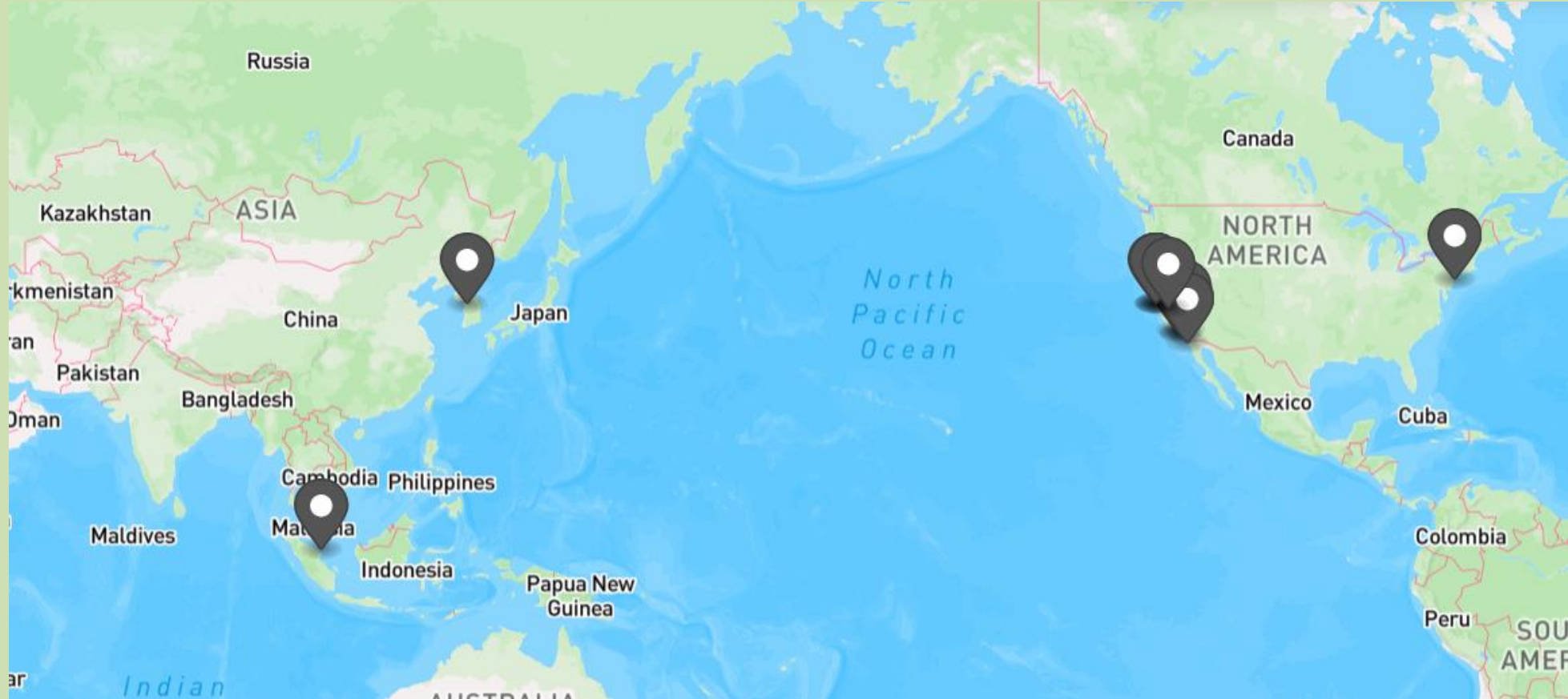


What you like to do!



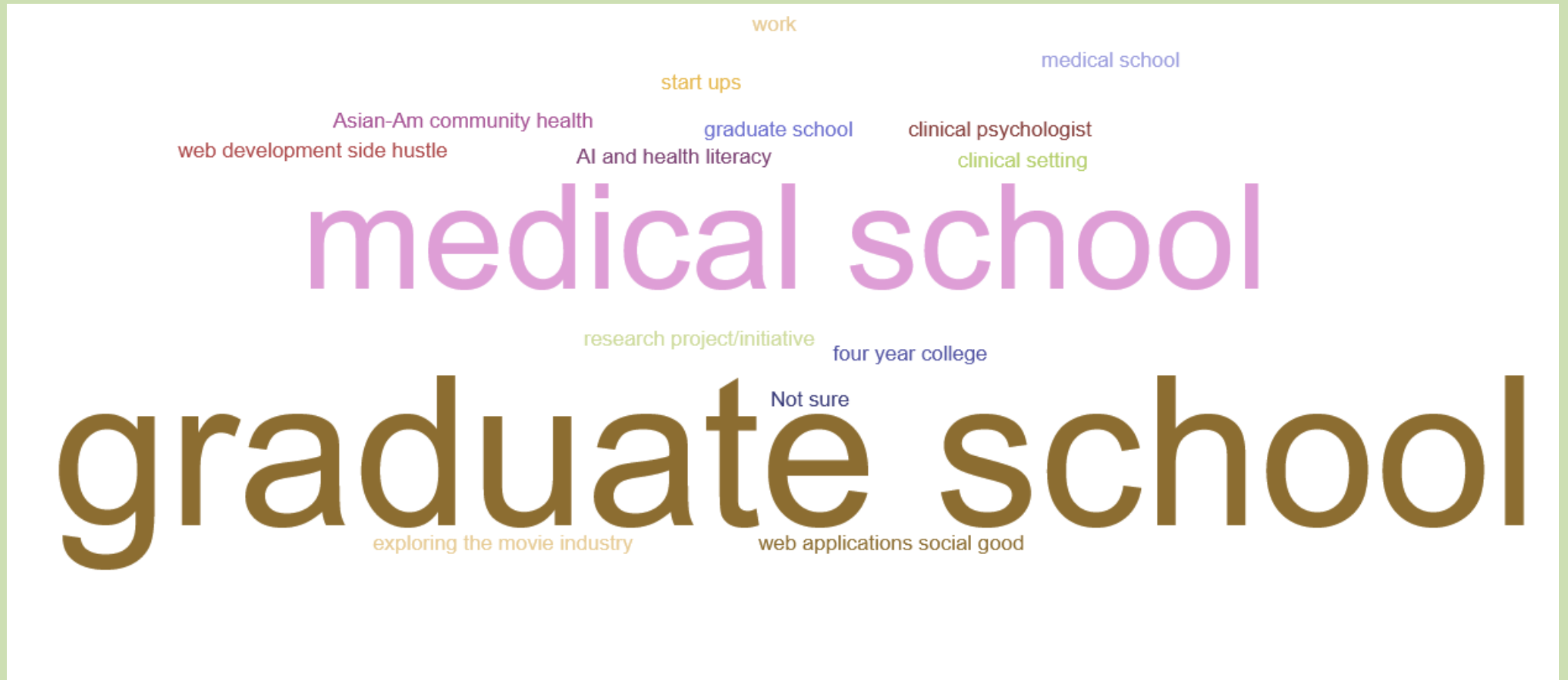
Variety of art: film, drawing, music

Students Locations



Students are mainly in California or Asia

Post-Graduation Plans




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

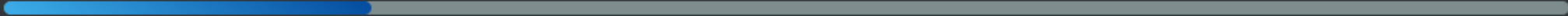
About you! GIS

What is your familiarity with GIS? 🗺️

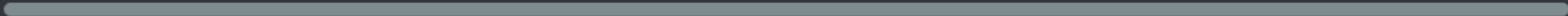
13 (76%): **None, the course title was the first time I heard about GIS**



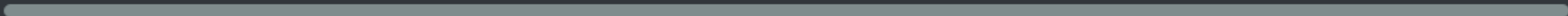
4 (24%): Some, I got the GIST of it and I can make some maps



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!

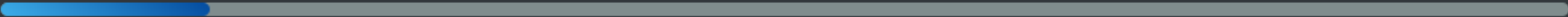
About you! Civil Society

What is your experience with civil society? 🇸🇪 🗨️

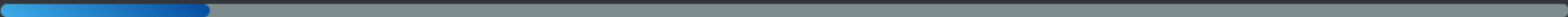
11 (73%): **Some, I have done things like volunteering at a non-profit before**



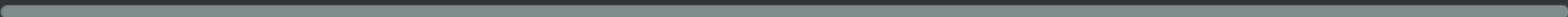
2 (13%): None, isn't society already civil?



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

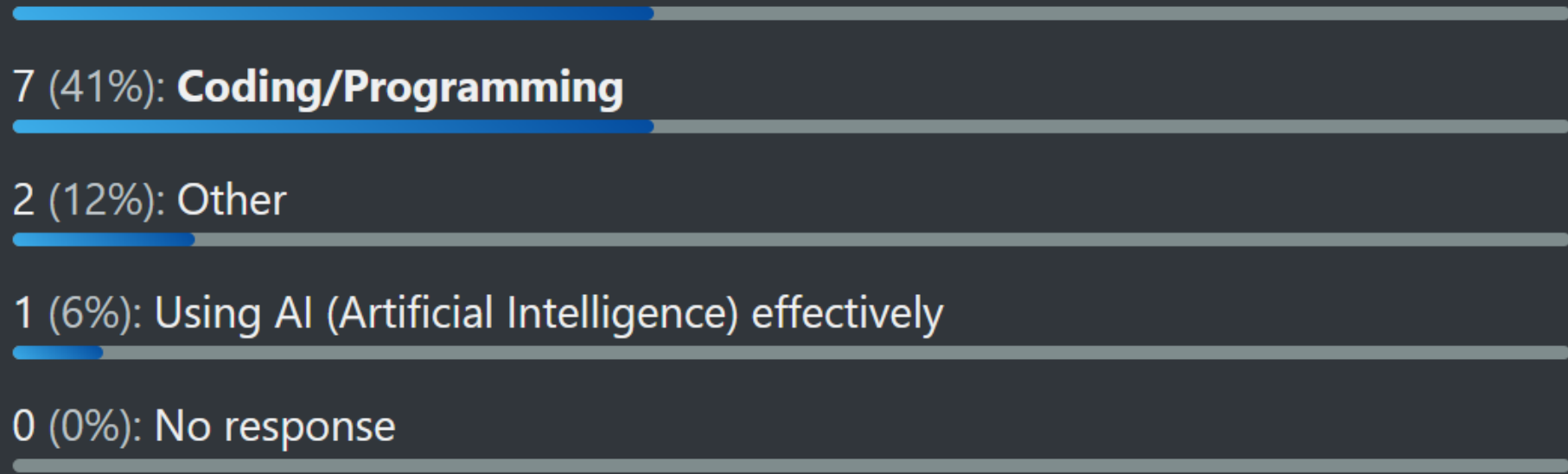
Favorite Map

Start by raising your hand in the chat! 🙋

One more thing, about you!

What technical skill would you like to learn most from this class? 💡

7 (41%): **Working with GIS**



A horizontal bar chart with a dark blue background. The chart displays five categories of technical skills. Each category is represented by a horizontal bar with a blue segment on the left and a grey segment on the right. The blue segment's length corresponds to the percentage of respondents who chose that skill. The categories and their values are: Working with GIS (7, 41%), Coding/Programming (7, 41%), Other (2, 12%), Using AI (Artificial Intelligence) effectively (1, 6%), and No response (0, 0%).

Technical Skill	Count	Percentage
Working with GIS	7	41%
Coding/Programming	7	41%
Other	2	12%
Using AI (Artificial Intelligence) effectively	1	6%
No response	0	0%

7 (41%): **Coding/Programming**

2 (12%): Other

1 (6%): Using AI (Artificial Intelligence) effectively

0 (0%): No response

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:

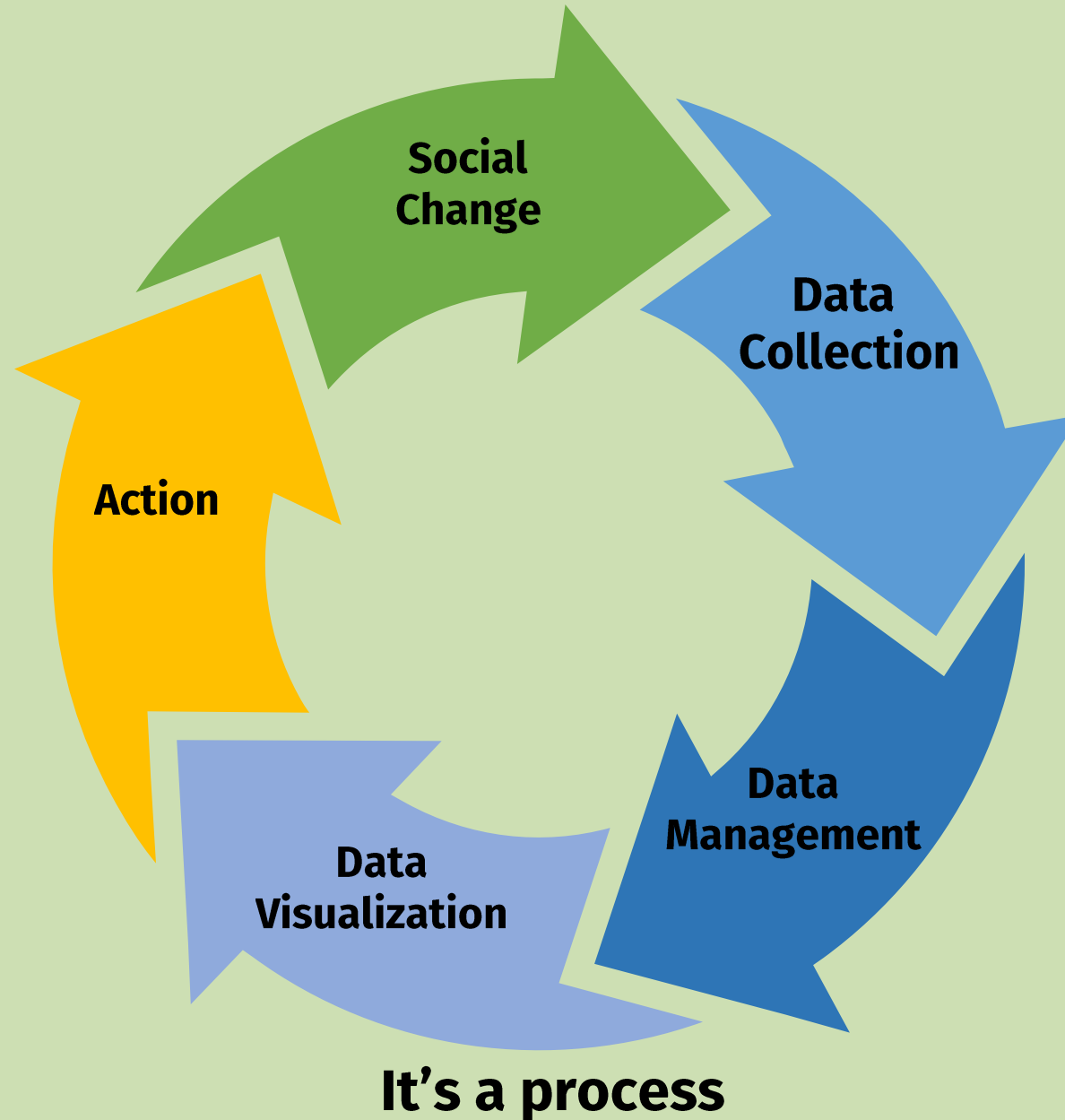
I HAVE NO IDEA WHAT I AM DOING



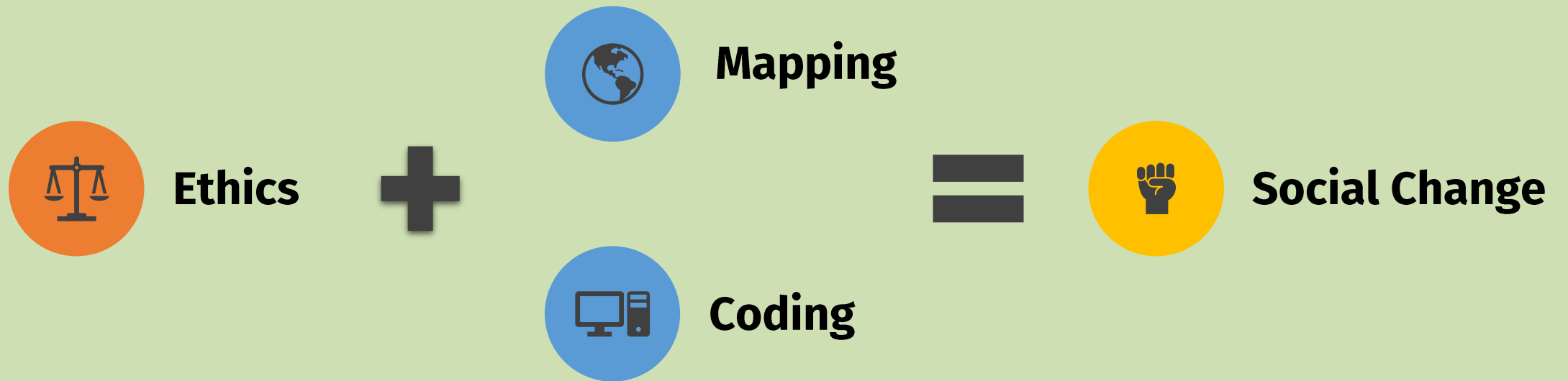


THIS ISN'T SO RUFF

What is this course?



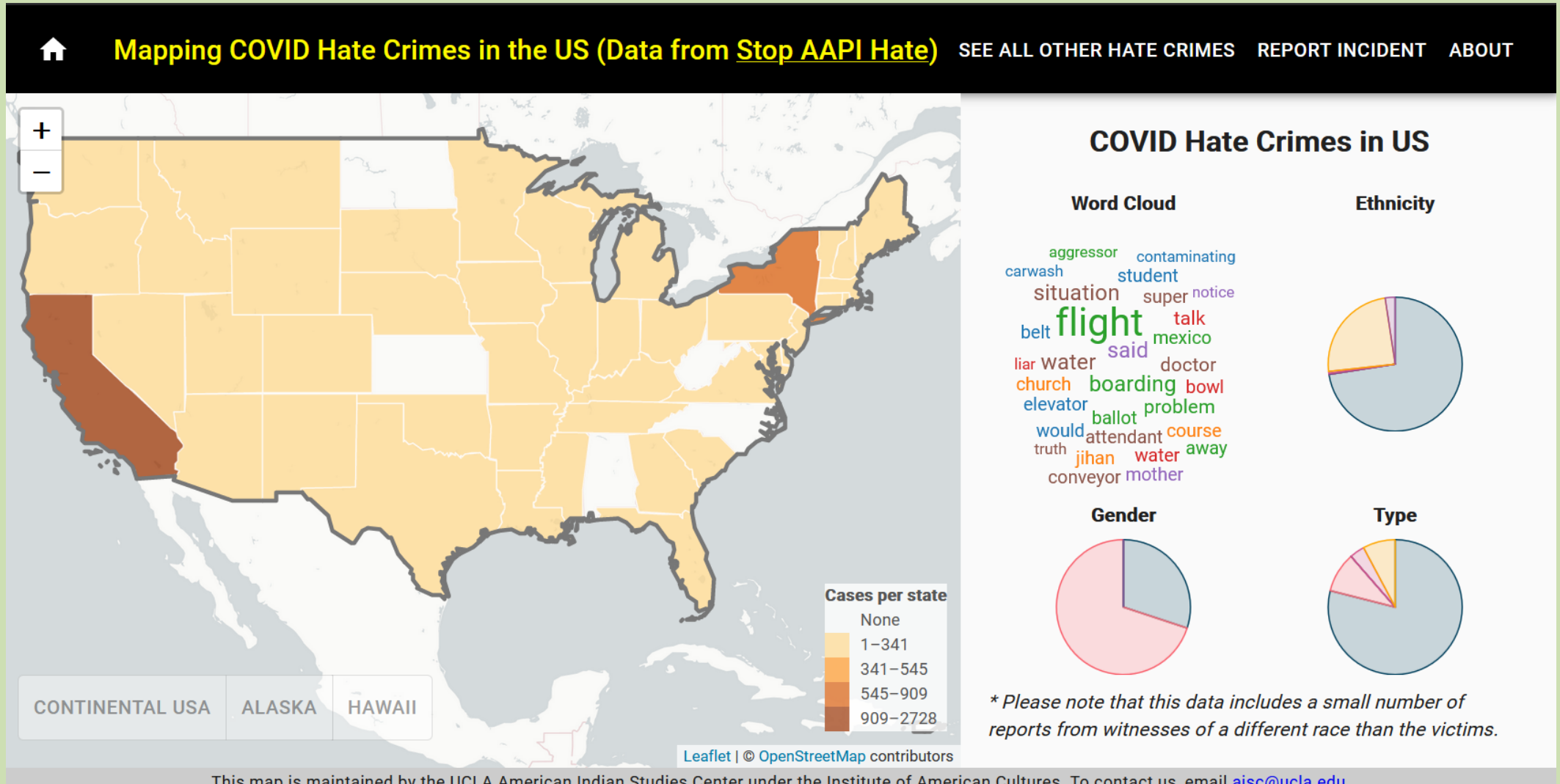
What is this course?



What is this course, really?



Another example project



www.hatecrime.map.com/covid

About the Course

Details

General Course Structure*



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



Assignments

Weekly

Individual



Readings



Labs



Posts

Intermittent

Group



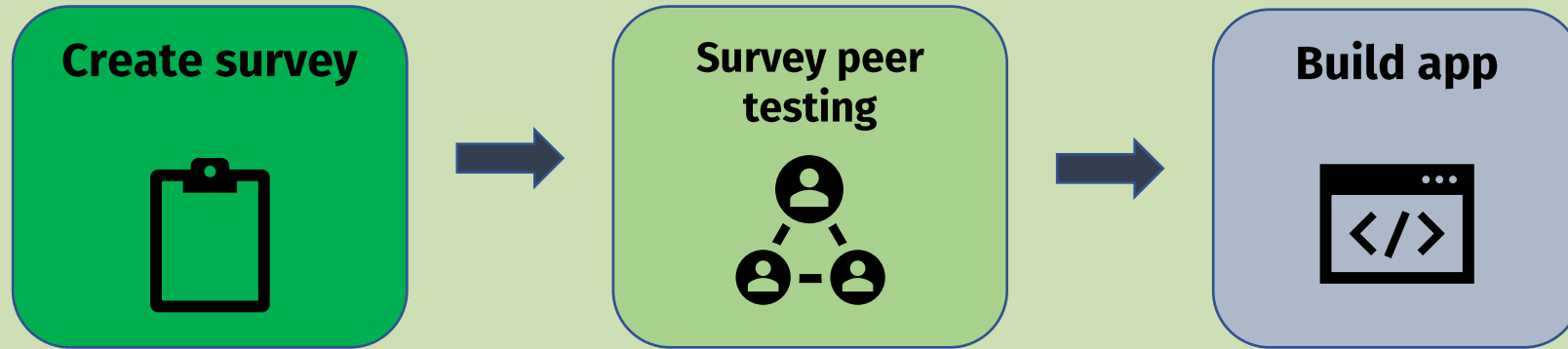
Project Milestones



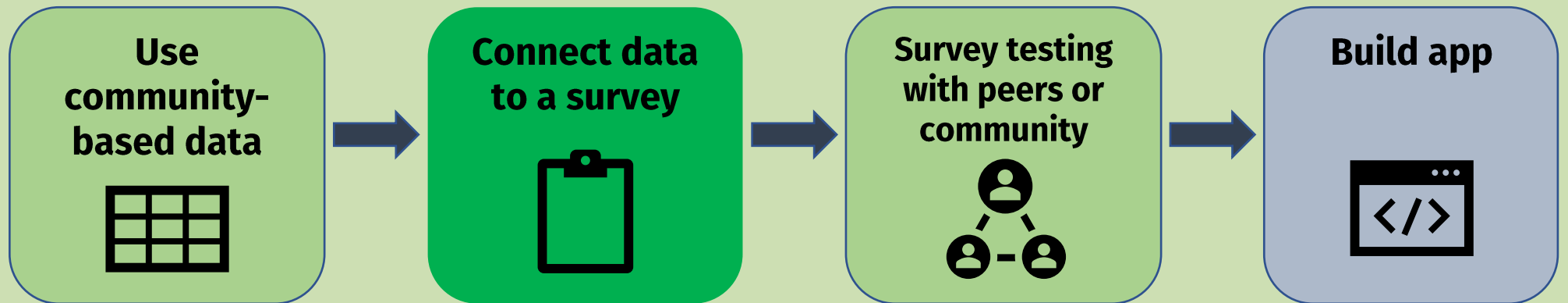
Final Project

Final Group Project

Option A:



Option B:



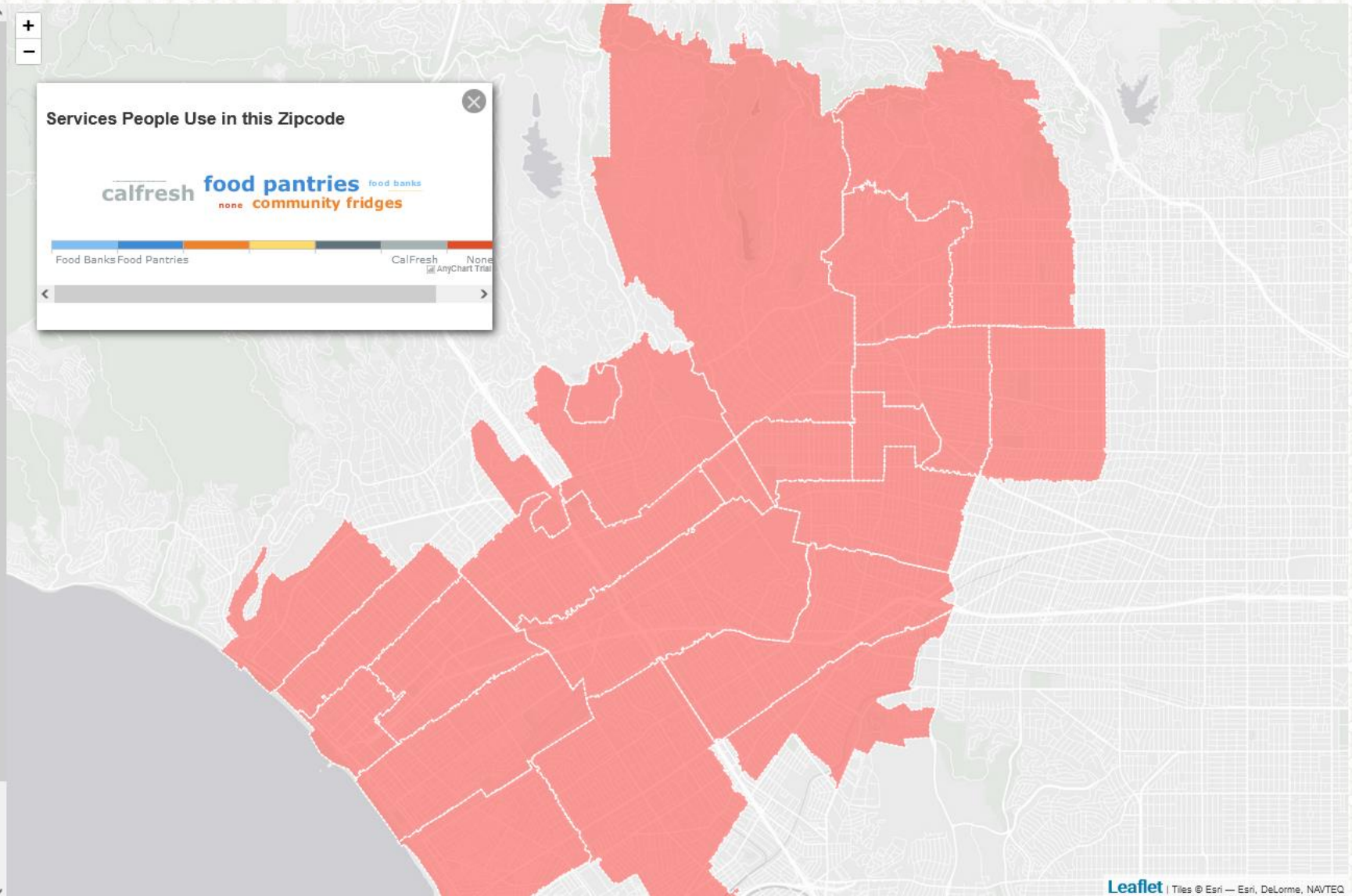
Past Student Projects

What Does West LA Have to Say About Food Insecurity?

Choose a zip-code: Include All



<p>Where am I?: 90025</p> <p>Services Used: Community Fridges</p> <p>Reasons for Use: They were closer to my home and didn't require ID</p> <p>Problems of Service:</p> <p>Testimony Submission Time: 5/20/2021 14:18:34</p>
<p>Where am I?: 90024</p> <p>Services Used: Food Banks, Food Pantries, Community Fridges, CalFresh</p> <p>Reasons for Use:</p> <p>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</p> <p>Testimony Submission Time: 5/20/2021 14:22:48</p>
<p>Where am I?: 90095</p> <p>Services Used: Food Pantries</p> <p>Reasons for Use: Because the did not require ID</p> <p>Problems of Service: I don't qualify for calfresh, I wish I was</p> <p>Testimony Submission Time: 5/20/2021 14:22:53</p>
<p>Where am I?: 90095</p> <p>Services Used: Food Pantries, CalFresh</p> <p>Reasons for Use: resources offered through the school</p> <p>Problems of Service: food pantry hours of operation are limited and require documents I am not comfortable offering</p> <p>Testimony Submission Time: 5/20/2021 14:23:31</p>
<p>Where am I?: 90024</p> <p>Services Used: None</p> <p>Reasons for Use:</p> <p>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.</p> <p>Testimony Submission Time: 5/20/2021 14:25:41</p>
<p>Where am I?: 90210</p> <p>Services Used: CalFresh</p>



circa. 2021

Reimagine 6th Street

English Survey

Encuesta en Español

한국 설문 조사

Github

Contact Us

About

Select Language

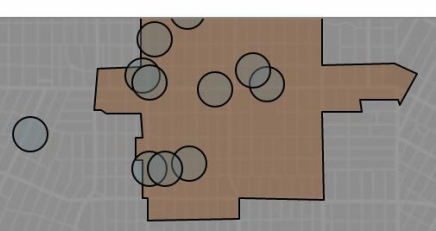
Powered by  Translate

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 돕는 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



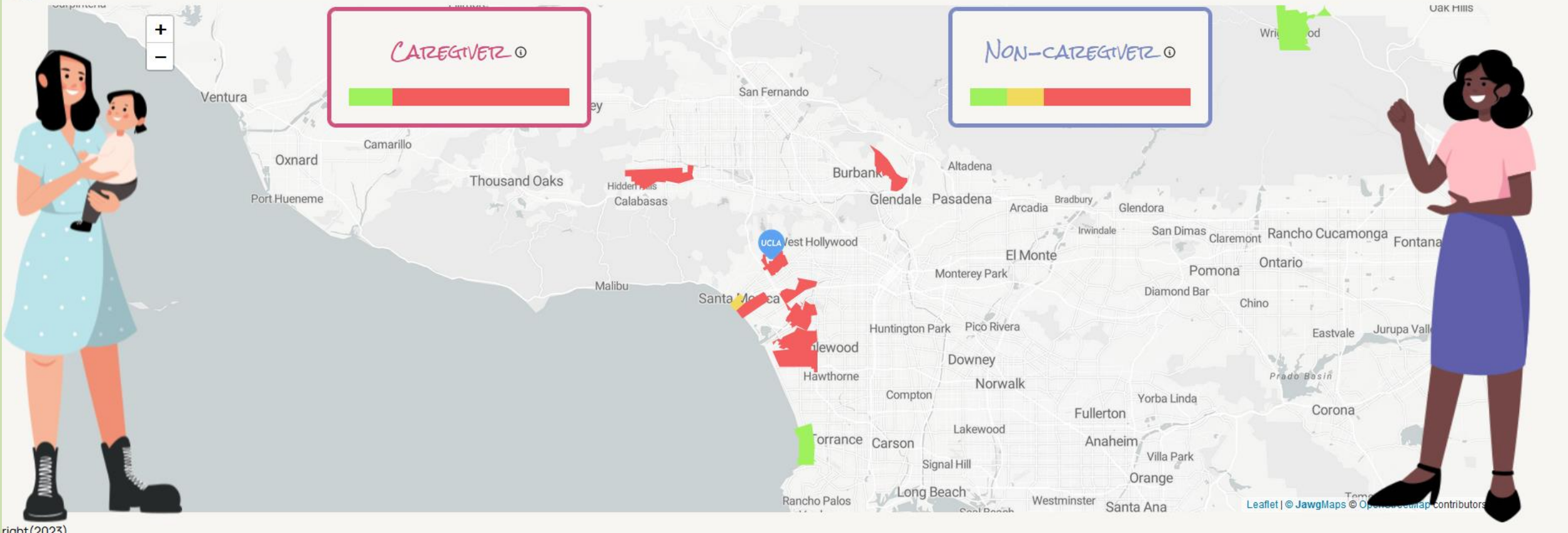
Access to Opportunity: **Barriers** Faced by International Students From **Across U.S. Borders**



circa. 2022



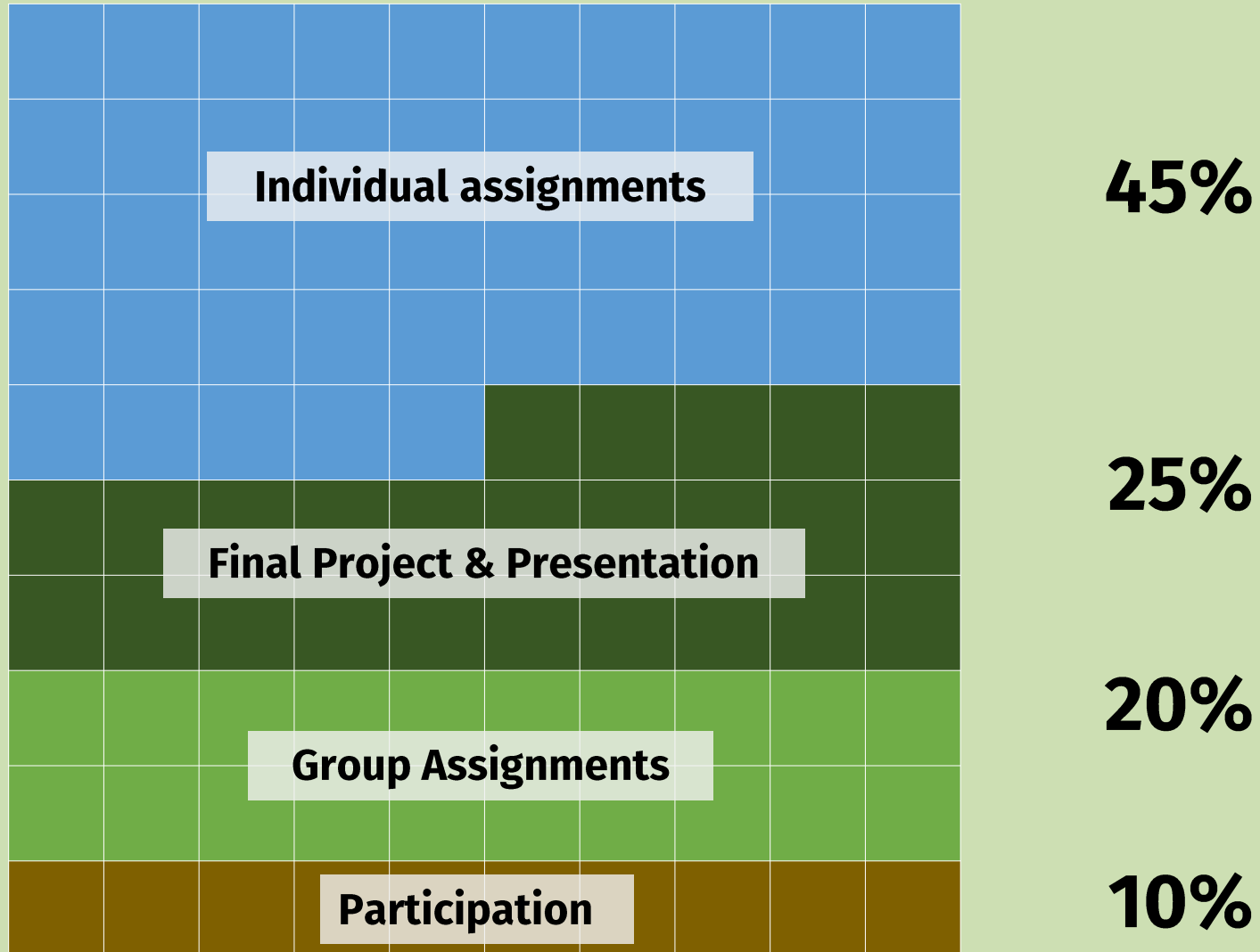
Girls Just Want to Have Fun: Female UCLA Faculty & Staff Work-Life Balance



right (2023)

circa. 2023

Evaluation



About the Course

Class website and syllabus

We will be using GitHub exclusively

The screenshot shows the top navigation bar of a course website. The header is blue with the course title "AA191A-Web Development and GIS for Social Change" on the left, a search bar in the center, and a GitHub repository link on the right. Below the header is a white navigation menu with links for Home, Weekly Materials, Assignments, Labs, Discussion, Syllabus, and Help. The main content area has a "Home" link on the left and "Class Links" on the right. A status bar shows "Discord Chat" and "Deploy Documentation passing". The main text welcomes users to the course website and lists communication channels: Discord, GitHub discussion board, email, and office hours.

AA191A-Web Development and GIS for Social Change

Home Weekly Materials Assignments Labs Discussion Syllabus Help

Home

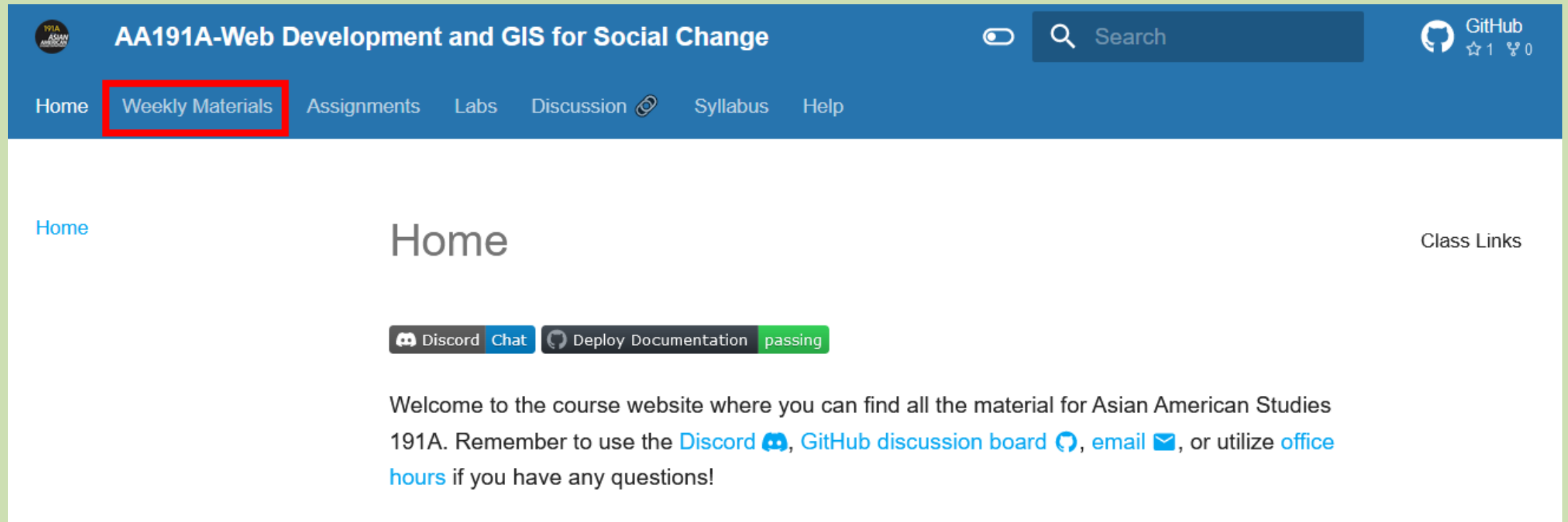
Class Links

Discord Chat Deploy Documentation passing

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 course website for AA191A-Web Development and GIS for Social Change. The navigation bar is blue and contains the following items: Home, Weekly Materials (highlighted with a red box), Assignments, Labs, Discussion, Syllabus, and Help. The main content area is white and features a 'Home' heading, a 'Class Links' section, and a welcome message. The welcome message states: '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!'. There are also buttons for 'Discord Chat' and 'Deploy Documentation passing'.

Weekly materials is your reference for the week!

Weekly Materials Summary

The screenshot shows a course website for 'AA191A-Web Development and GIS for Social Change'. The navigation menu includes 'Home', 'Weekly Materials', 'Assignments', 'Labs', 'Discussion', 'Syllabus', and 'Help'. The 'Weekly Materials' section is active, showing a 'Summary' page. A red arrow labeled 'A' points from the 'Summary' link in the left sidebar to the 'Weekly overview' section. Another red arrow labeled 'B' points from the 'Weekly overview' section to the 'Course Materials' table.

Weekly Materials
Summary
Week 1 - GIS, Data, and Ethics

Summary

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 the course website for AA191A-Web Development and GIS for Social Change. The navigation bar includes Home, Weekly Materials, Assignments, Labs, Discussion, Syllabus, and Help. A search bar and GitHub repository information are also visible. The main content area is titled 'Week 1 - GIS, Data, and Ethics' and contains a table of materials. A sidebar on the left lists 'Weekly Materials', 'Summary', and 'Week 1 - GIS, Data, and Ethics'. A sidebar on the right lists 'Lecture', 'Lab', 'Group Work', 'Getting Started help', and 'Assignments'. Two red arrows point from the right sidebar to the 'Lecture' and 'Assignments' rows in the table.

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](#)

Week 1 - GIS, Data, and Ethics

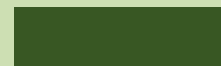
Date	Type	Description	Slides	Recording
4/4	Lecture	Introducing the course, GIS, data, and ethics	TBD	TBD
4/6	Lab	GITting Used to Web Development and JavaScript	TBD	TBD

- Lecture
- Lab
- Group Work
- Getting Started help
- Assignments

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*



git

– completing assignments



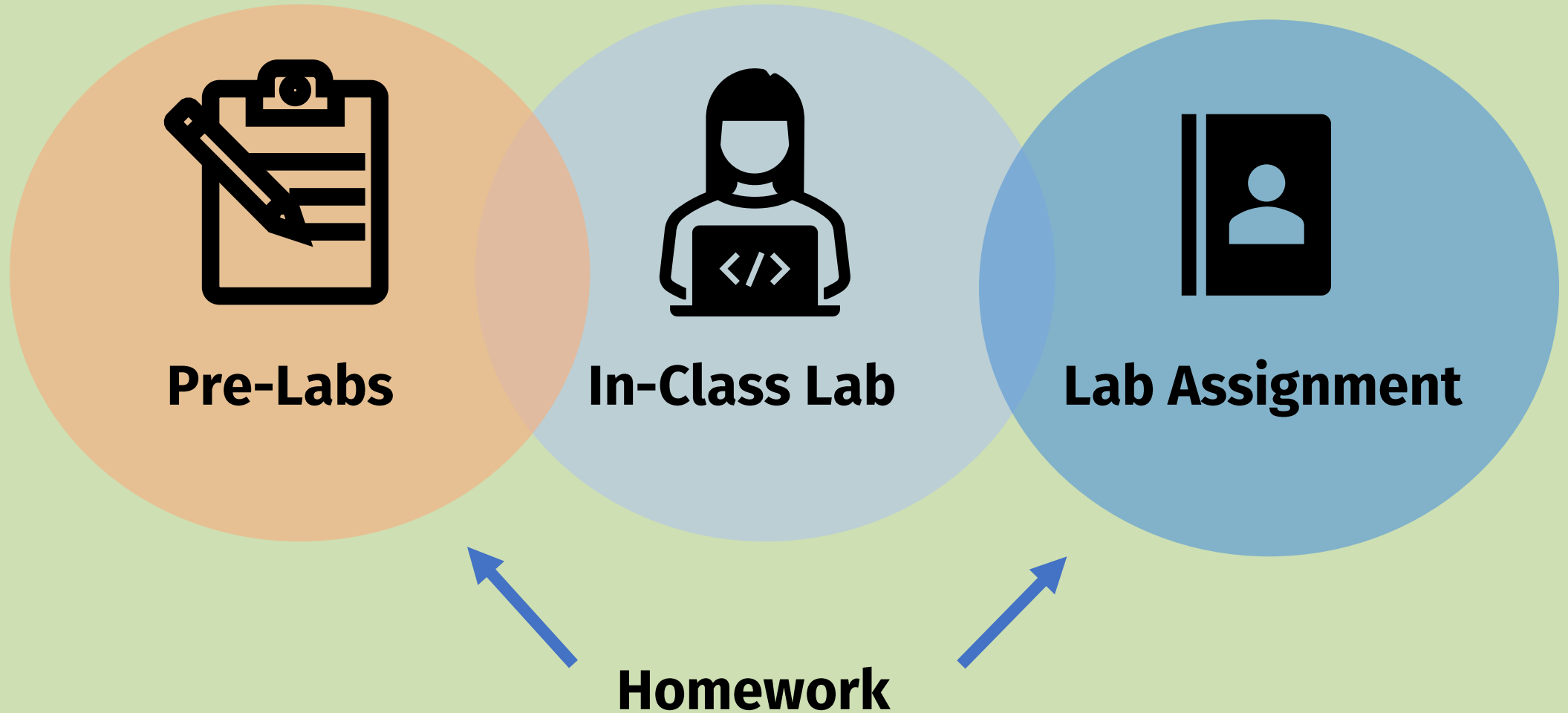
VS Code – writing code



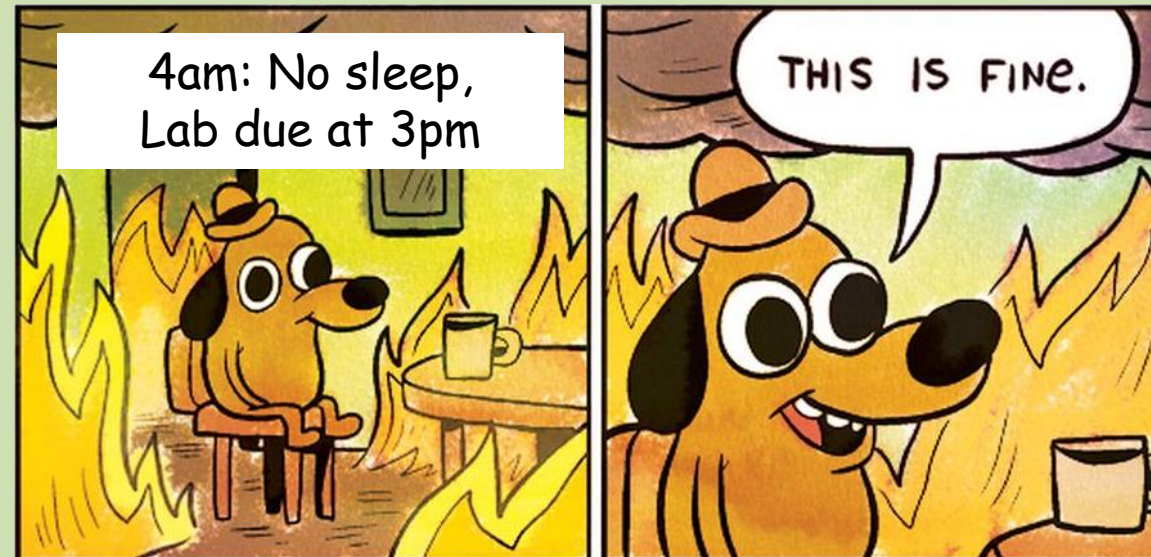
Firefox – web debugging

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

Labs



Try to avoid this situation:



Get help early and often!

Places to get help

- **Search online**

[StackOverFlow.com](https://stackoverflow.com)

- **Ask the class!**

- **Discord**

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

- **GitHub Discussions**

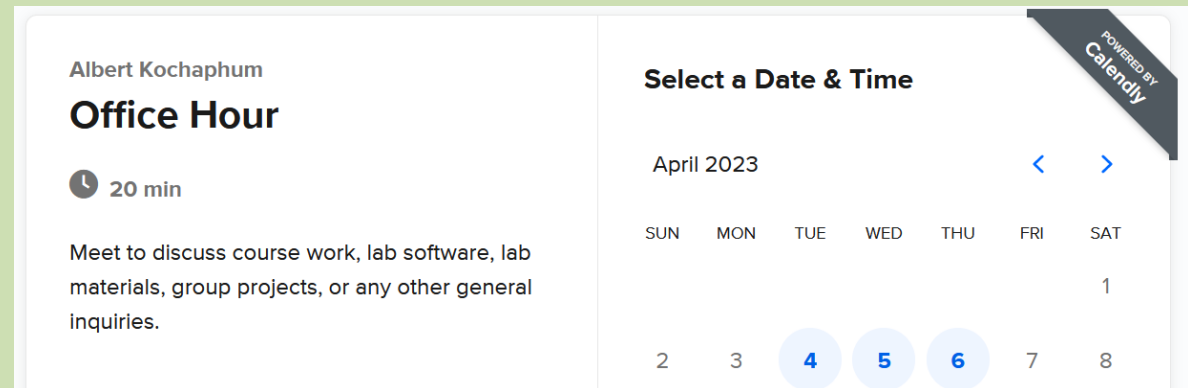
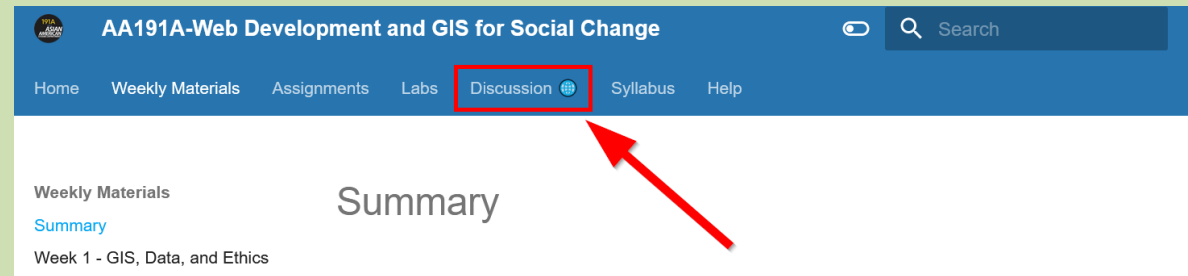
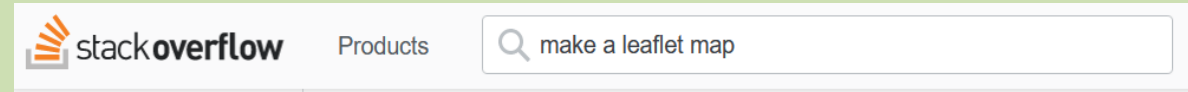
<https://github.com/albertkun/24SU-ASIAAM-191A/discussions/>

- **Drop by office hours**

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

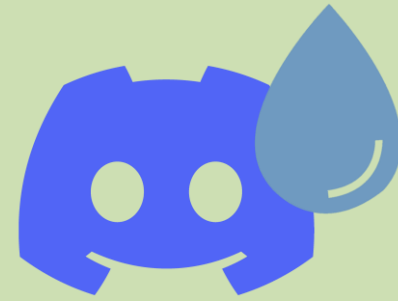
- **Email the instructor**

albertkun@oarc.ucla.edu



Discord(er)ly Conduct

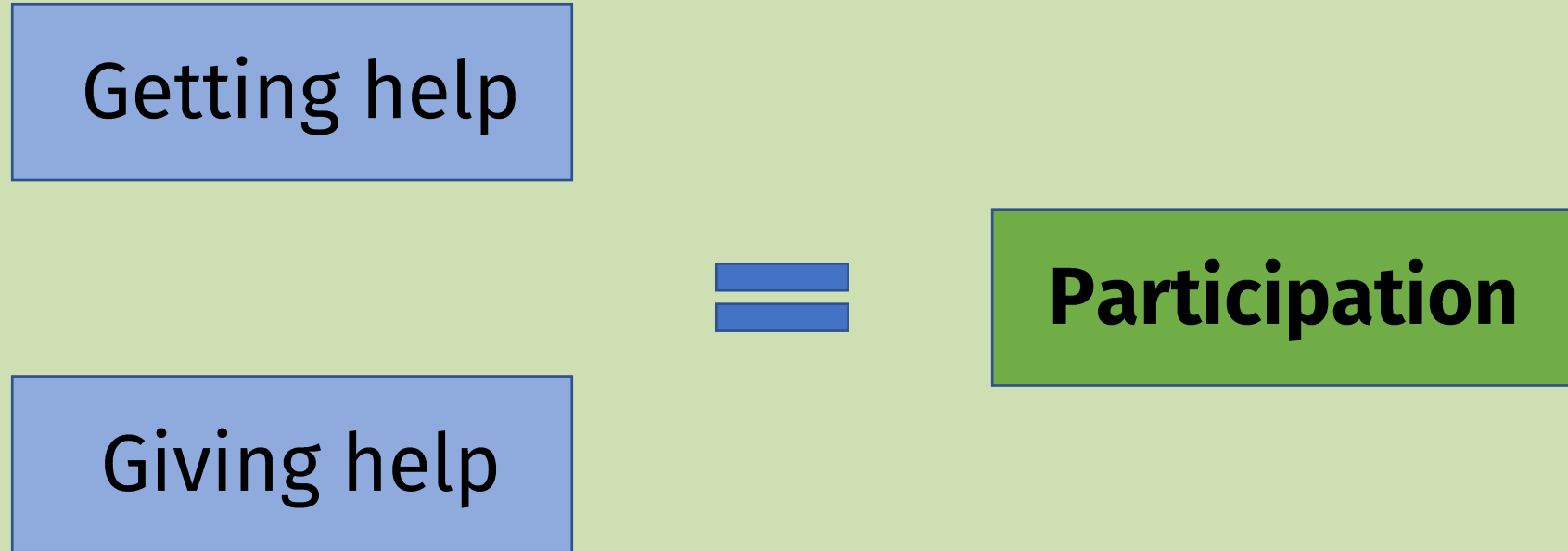
- **Use appropriate channels**
- **Use your real name**
- **Respect others time
(don't expect a quick response)**



<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



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

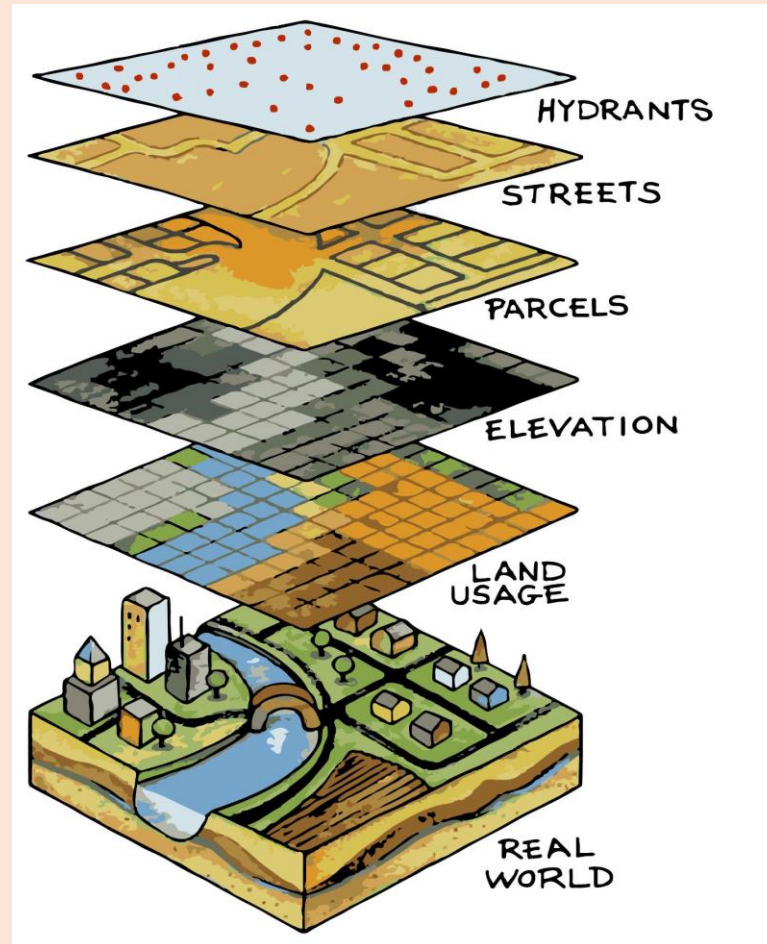
What is GIS?

A) Geographic Information Systems

or

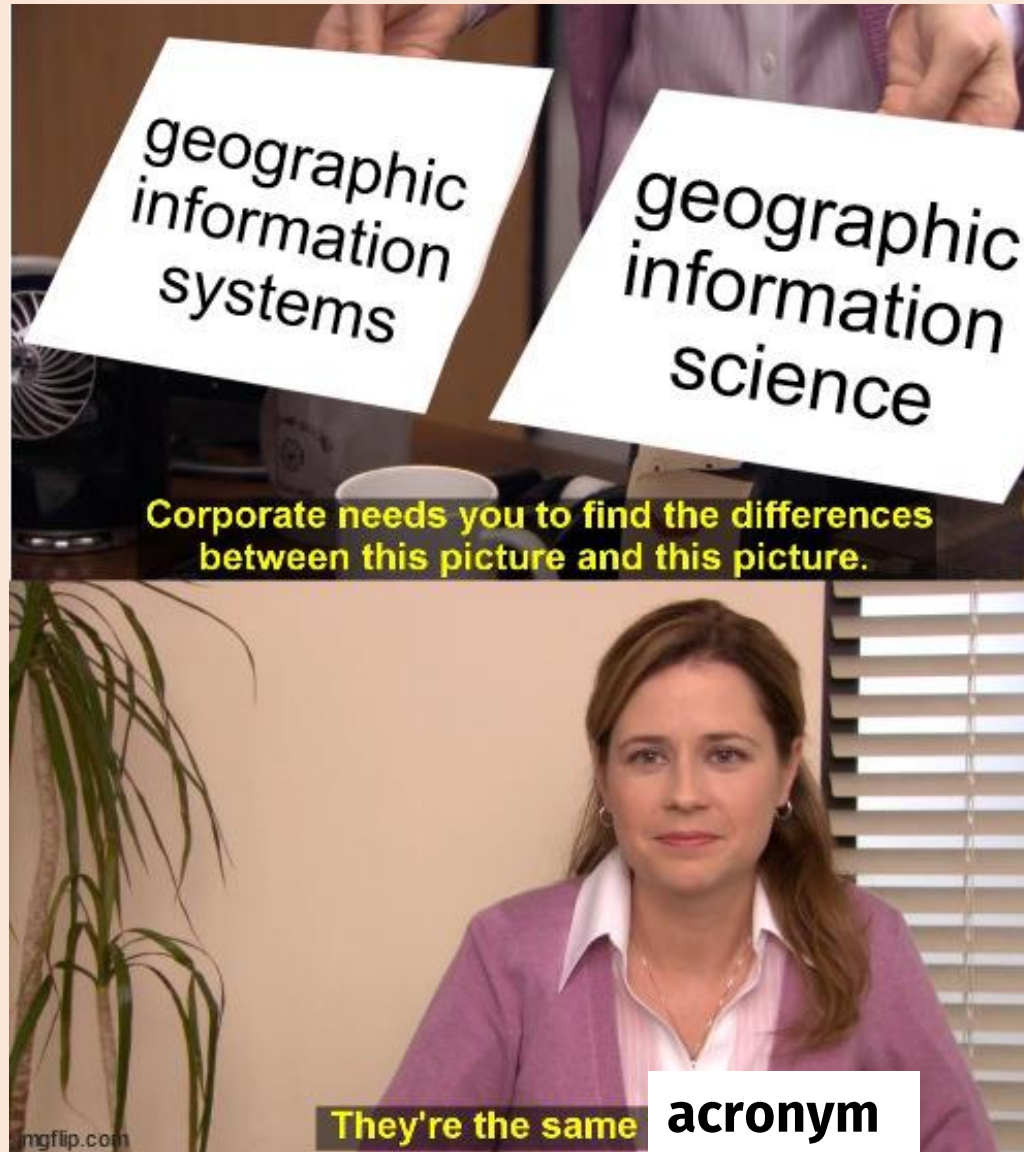
B) Geographic Information Science

What is GIS?



With GIS, data is layered with time and space

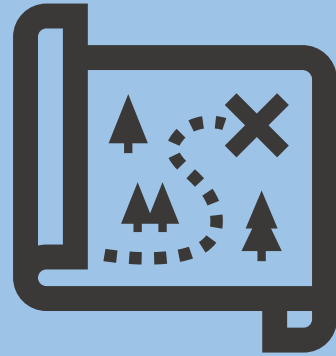
What is GIS?



What is GIS?

GISystems

=



Spatial tools

GIScience

=



Spatial thinking

Examples of GIS

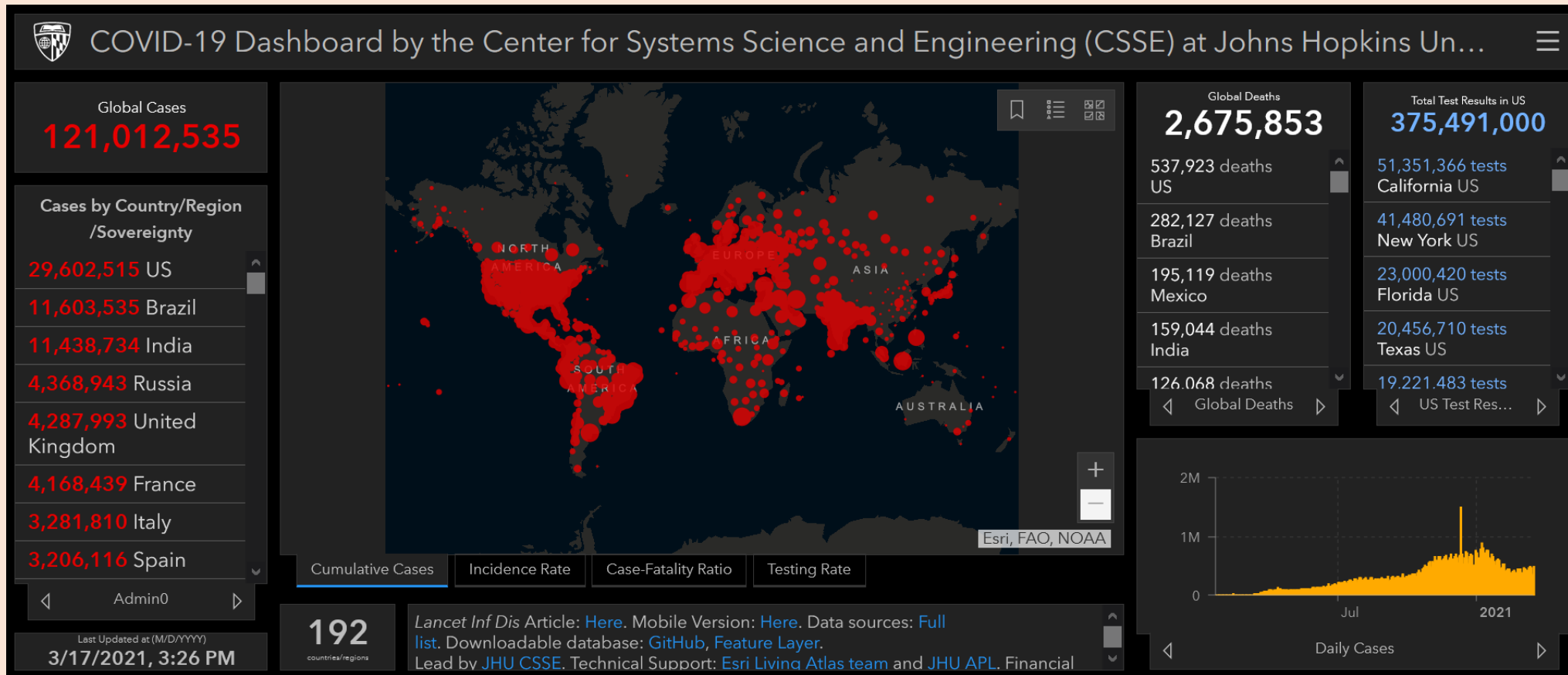
The screenshot displays the Google Maps interface for a transit route. The sidebar on the left contains the following information:

- Origin: Los Angeles International Airport
- Destination: University of California, Los Angeles
- Departure time: Leave now
- Warning: Public transport services are modified due to COVID-19.
- Warning: Wearing a mask on public transport is required due to COVID-19.
- Option: Send directions to your phone
- Transit details: 4:13 PM–5:20 PM, 1 hr 7 min, CC 6 / CC 6R, \$1.00, 21 min, every 12 min.

The main map area shows a route starting at LAX Transit Center Bay 11 and ending at the University of California, Los Angeles. A callout box indicates a travel time of 1 hr 7 min with a frequency of every 12 min. A satellite view inset is located in the bottom left of the map area.

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

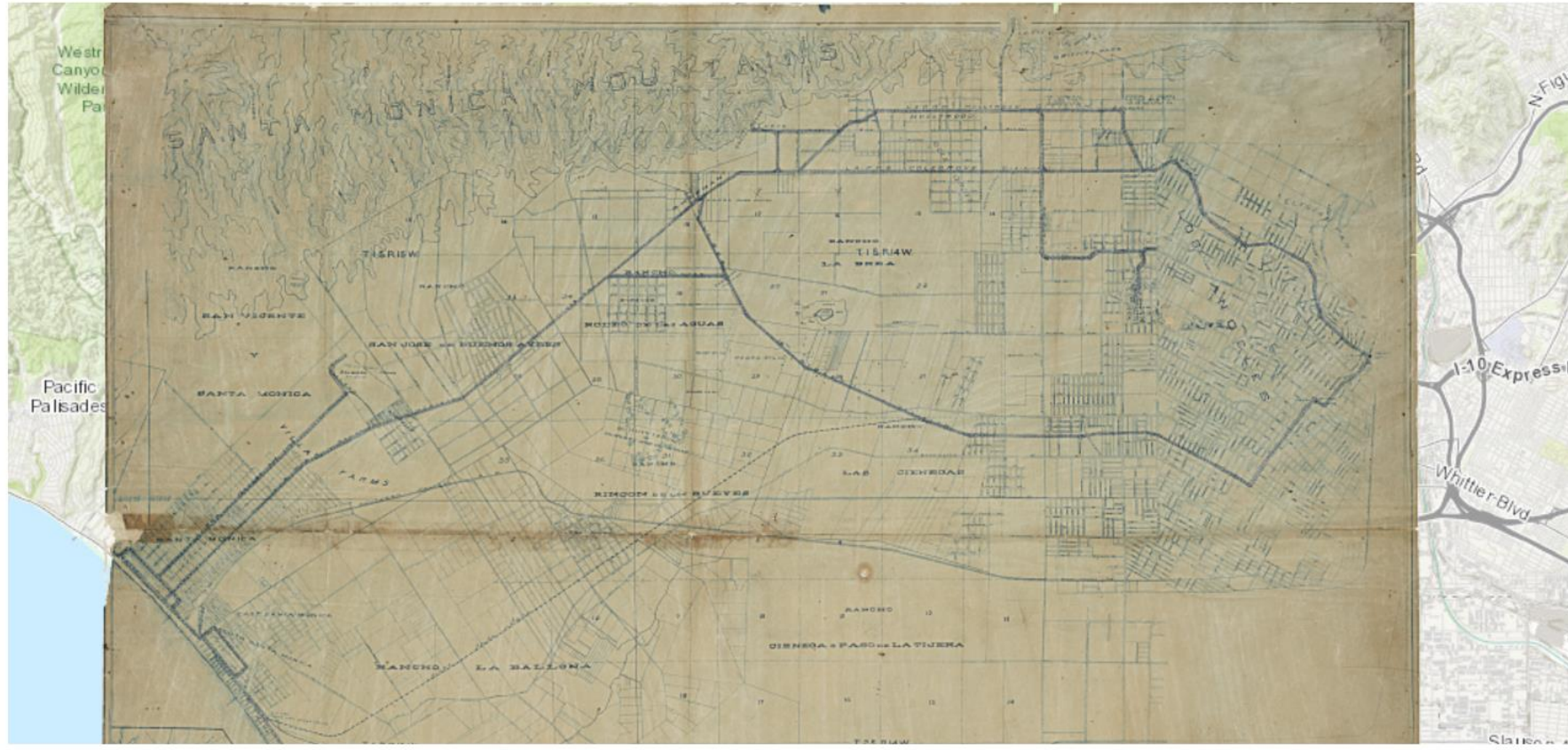
Examples of GIS



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

Are historical maps GIS?

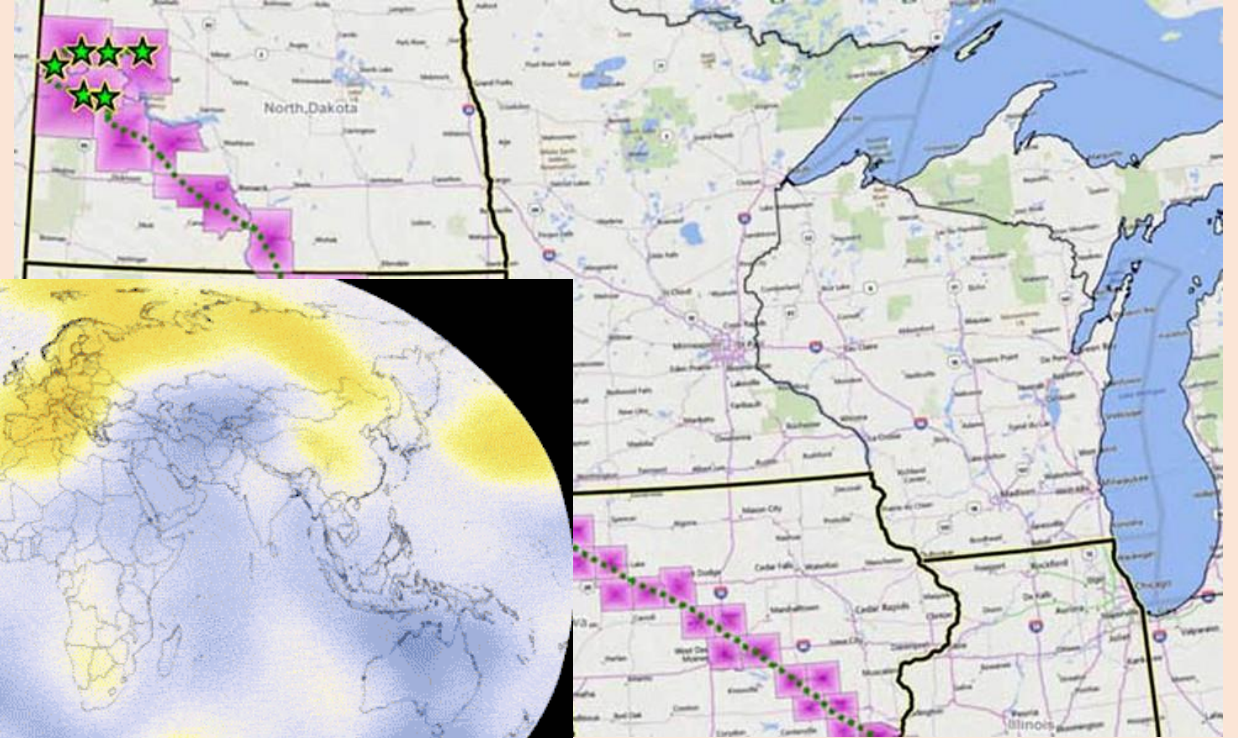
Map of the Los Angeles-Pacific R.R.



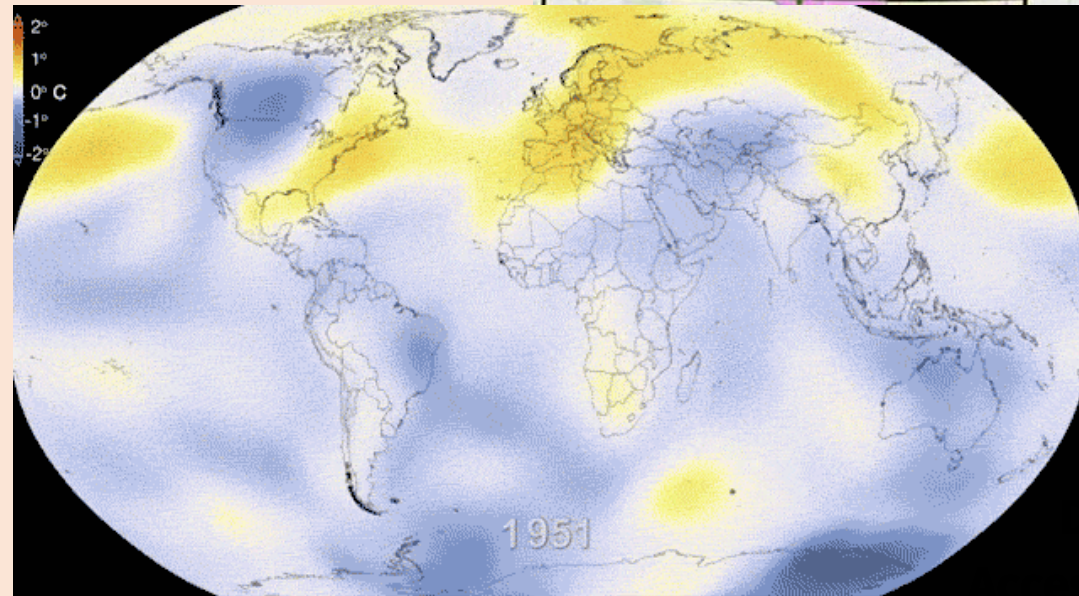
HyperCities Map Library, <http://www.hypercities.com/maplibrary/index.html>

GIS exists in various forms

It can disempower



It can empower



Global Temperature Increase

akota
s Pipeline

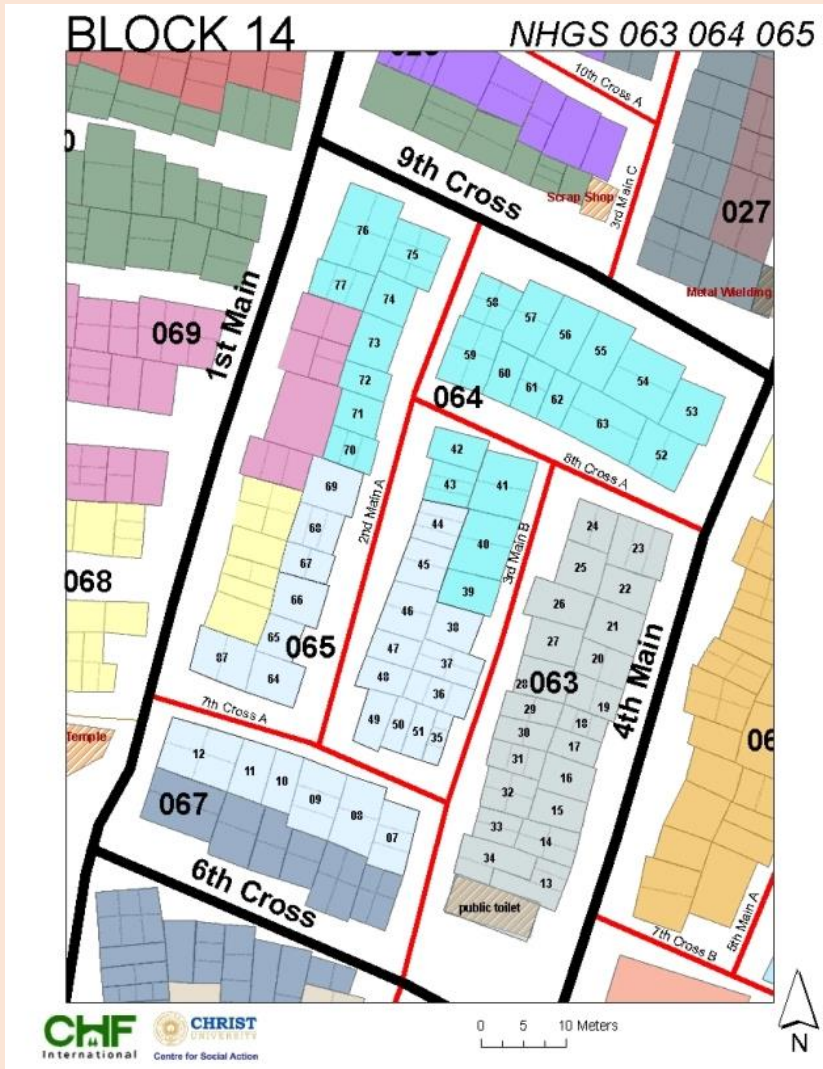
Participatory GIS/Community-Based GIS

	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			
TRANSFORMATIVE	Facilitate sustainable development by local people	Facilitator /catalyst	Analyst /Actor /Agent			
SELF-MOBILIZING	Support spontaneous action	Supporter	Owner /controller			

Our Focus



Participatory GIS/Community-Based GIS



GIS, Data, and Ethics

Data

GIS

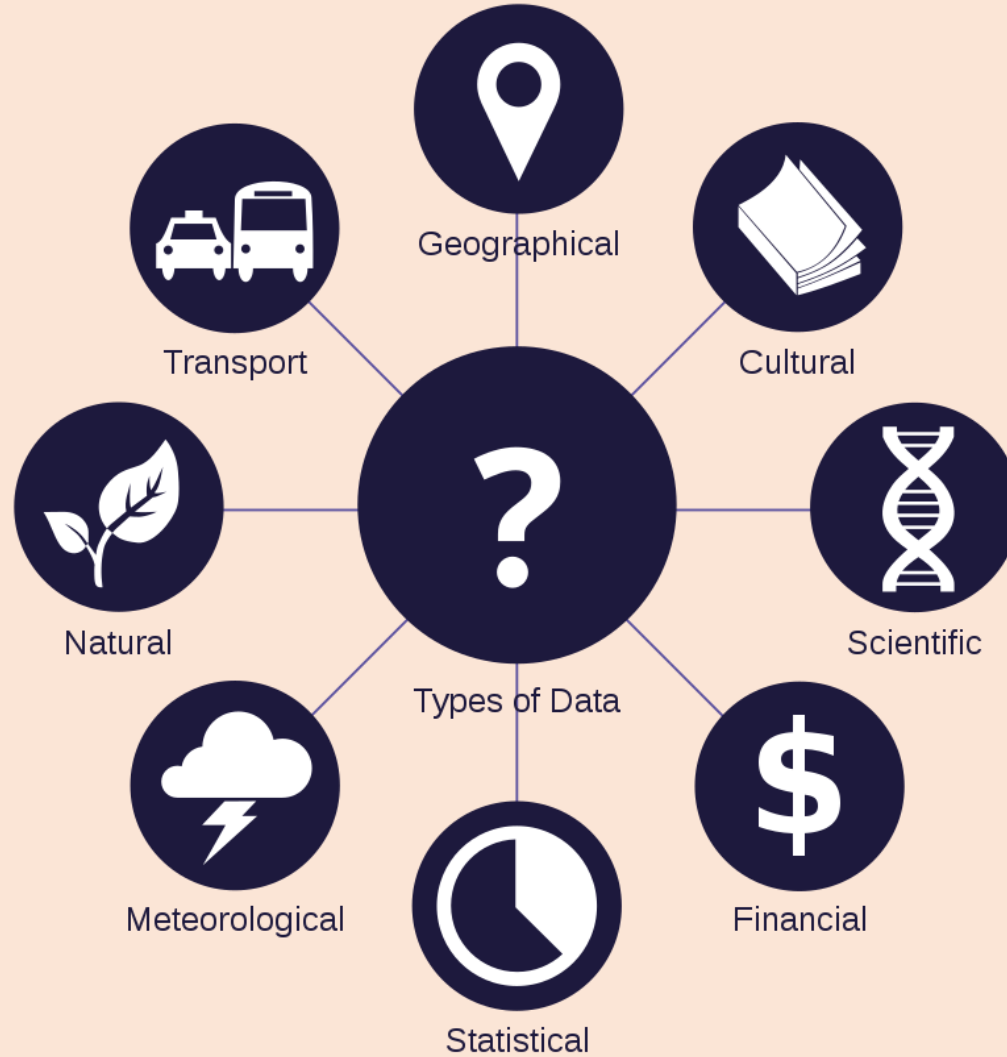
Data

Ethics

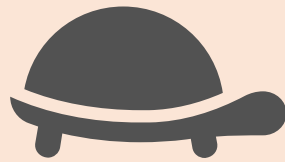
Discussion

Assignments

Types of Data



Types of Data



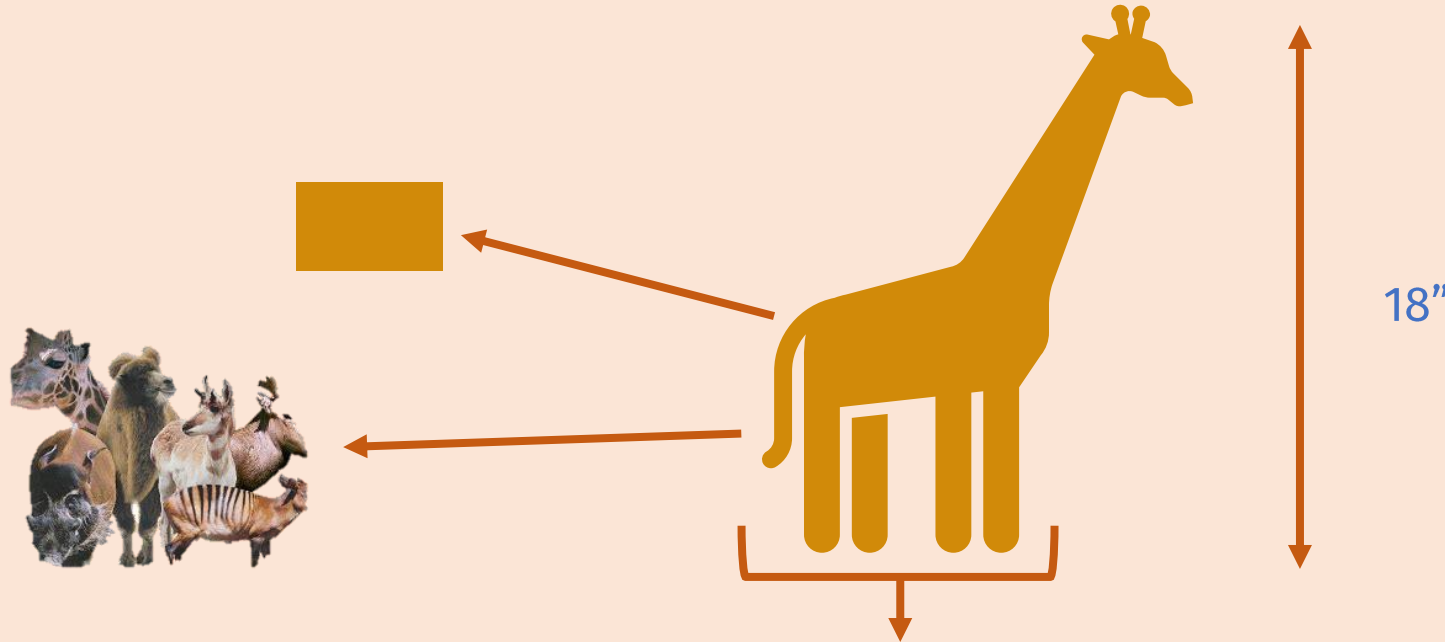
Qualitative

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

Quantitative

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

A giraffe reference 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.

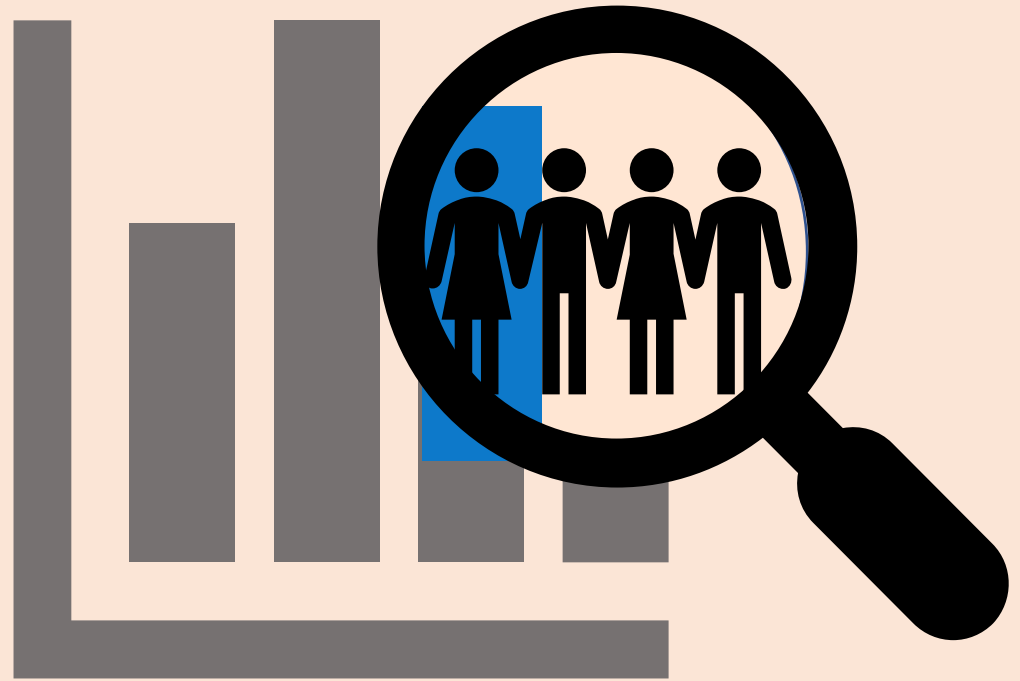
What is your familiarity with GIS? *

- 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 GenluS!

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

Knowable

Controllable

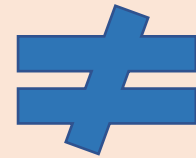
Rational

Neutral

Technocratic

Objective

Non-ideological



Voices of community

Power relations

Power Inequalities

Neglects those directly impacted by social problems.

Alternative data forms:

The screenshot shows the OpenStreetMap website interface. At the top right, there is a navigation menu with links for "Data Catalog", "Geohub", "Blog", "Developer Resources", and "About", along with social media icons for Facebook and Twitter, a search icon, and a "Sign In" button. Below this is the "Humanitarian OpenStreetMap" logo and a secondary navigation menu with links for "WHAT WE DO", "OUR WORK", "TOOLS & DATA", "NEWS", "COMMUNITY & ORGANIZATION", "PARTNER WITH US", and "GET INVOLVED". The main content area features the "OpenStreetMap" logo, an "Edit" button with a dropdown arrow, and "History" and "Export" buttons. A search bar is present with the placeholder text "Search" and "Where is this?", a "Go" button, and a share icon. A map is partially visible in the background.

Mapping Hate Crimes in the US #OneHateCrimelsTooMany

[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

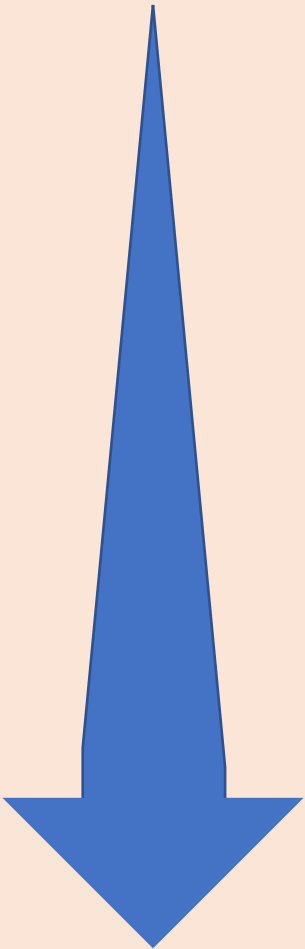
NEXT

2 Date of Harassment



Alternative data forms:

More Community based



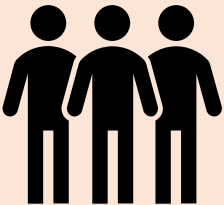
Open Data



Humanitarian



Crowdsourcing



Participatory



Our
Focus

GIS, Data, and Ethics

Ethics

GIS

Data

Ethics

Discussion

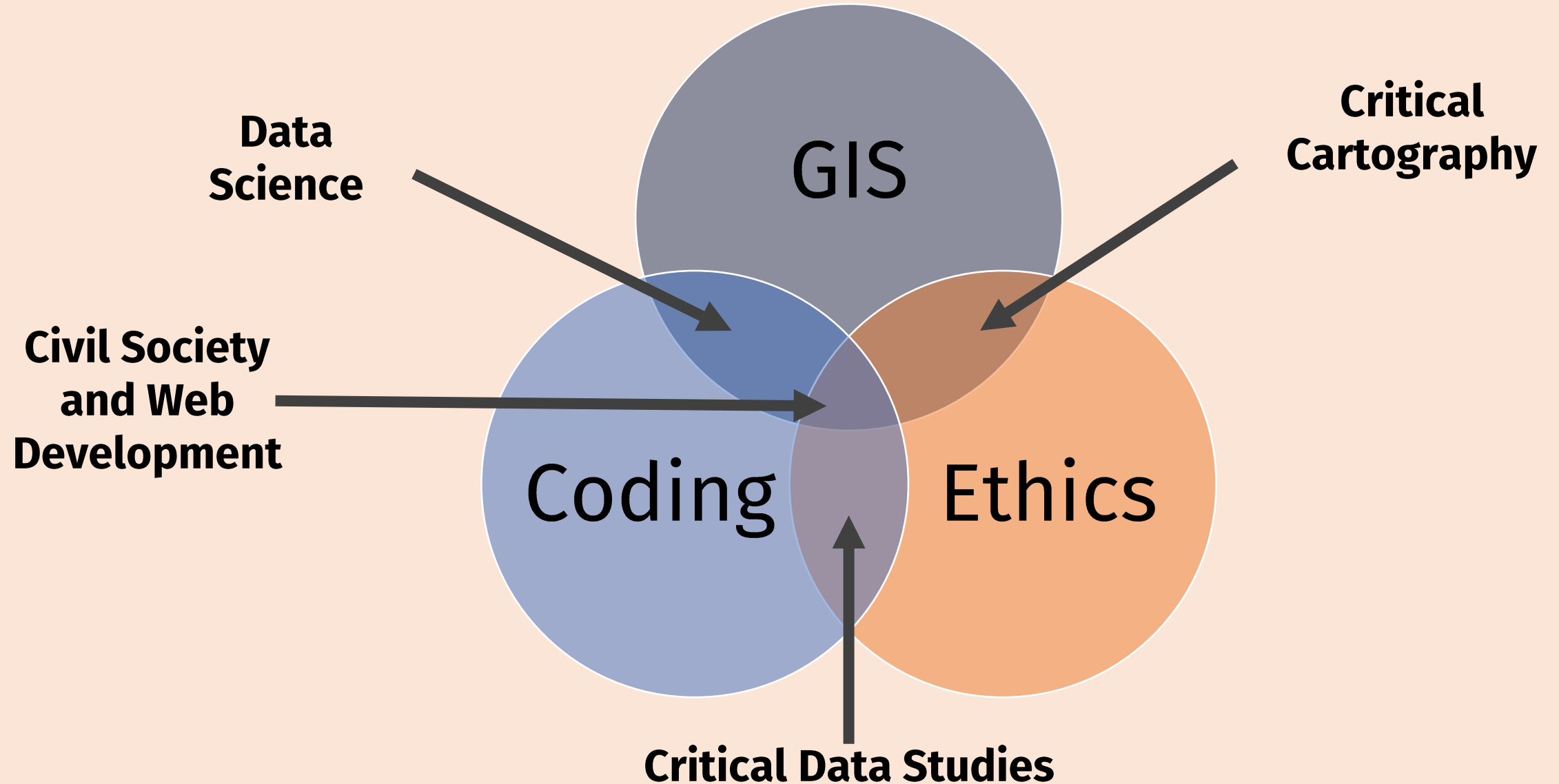
Assignments

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

GIS

Data

Ethics

Discussion

Assignments

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

Data

Ethics

Discussion

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.

Complete the following:

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Group Time

Finding members

Group Spreadsheet

Tentative Theme	Health Care	LGBTBQ+ 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

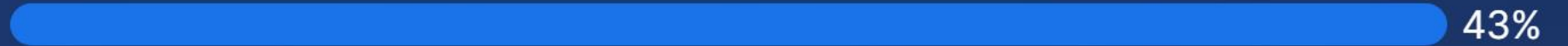
1. Have one person **create a new repo** for the group and invite everyone as collaborators.
2. **Add a `readme.md`** to the repository that briefly describes the following in 1-2 sentences:
 - What social problem is being addressed?
 - Who is being empowered by your mapplication?
 - What technical and 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