

Open Source and Web Mapping

Ethical Software and Developing for Civil Society

Lecture
Visiting Voice
Group Time



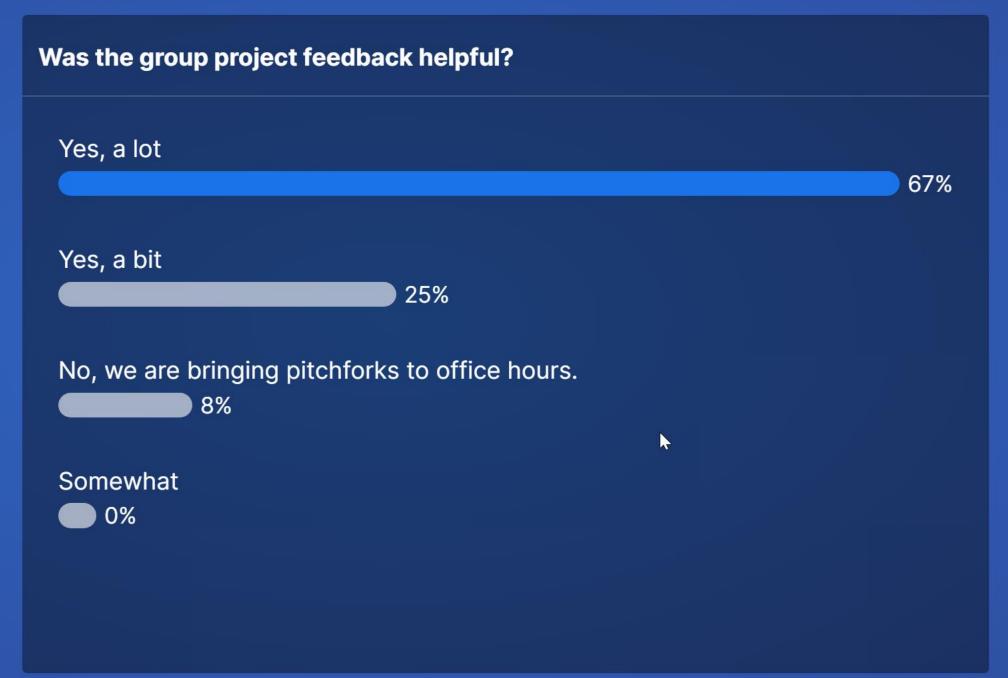


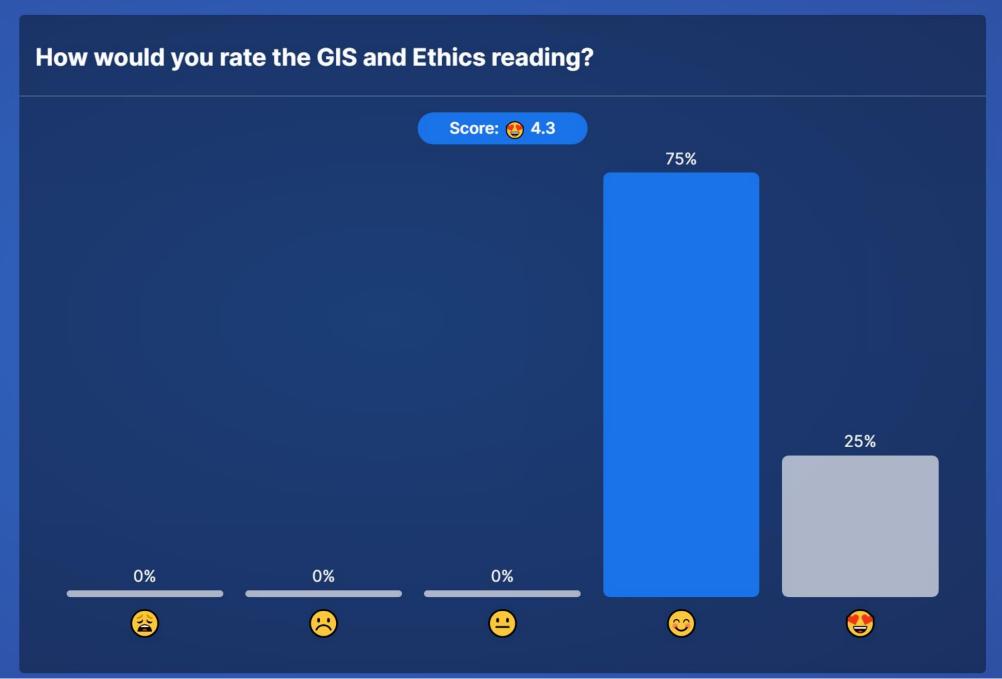
Week 4! Ready 4 more?!

Join Slido.com

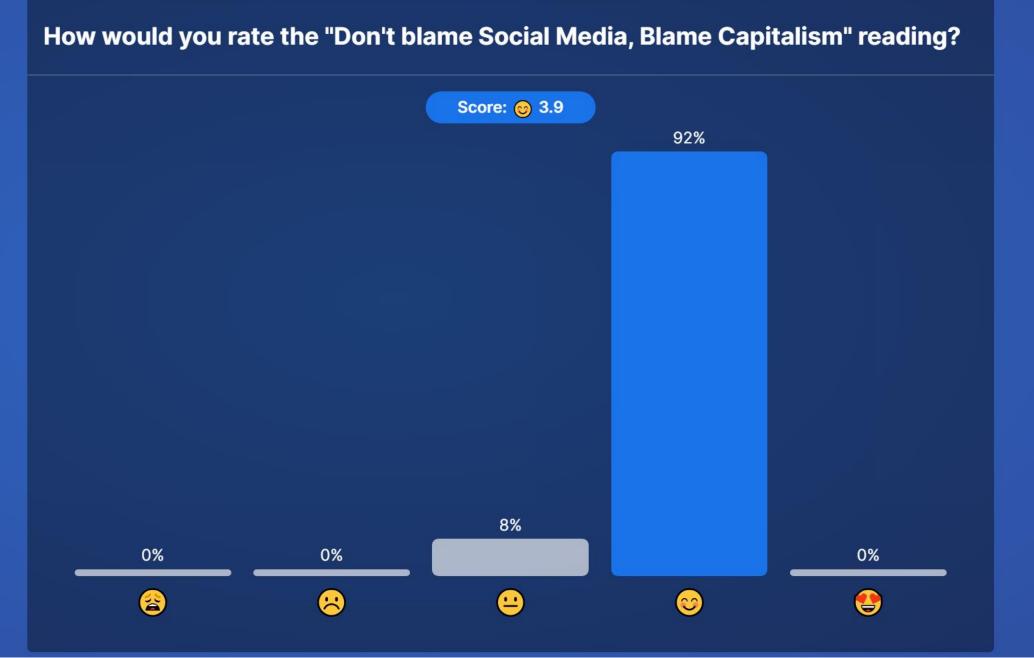
ready 4 sure
yes no:(
yass
yippee yay
meow
yawrr
Yeahhhh



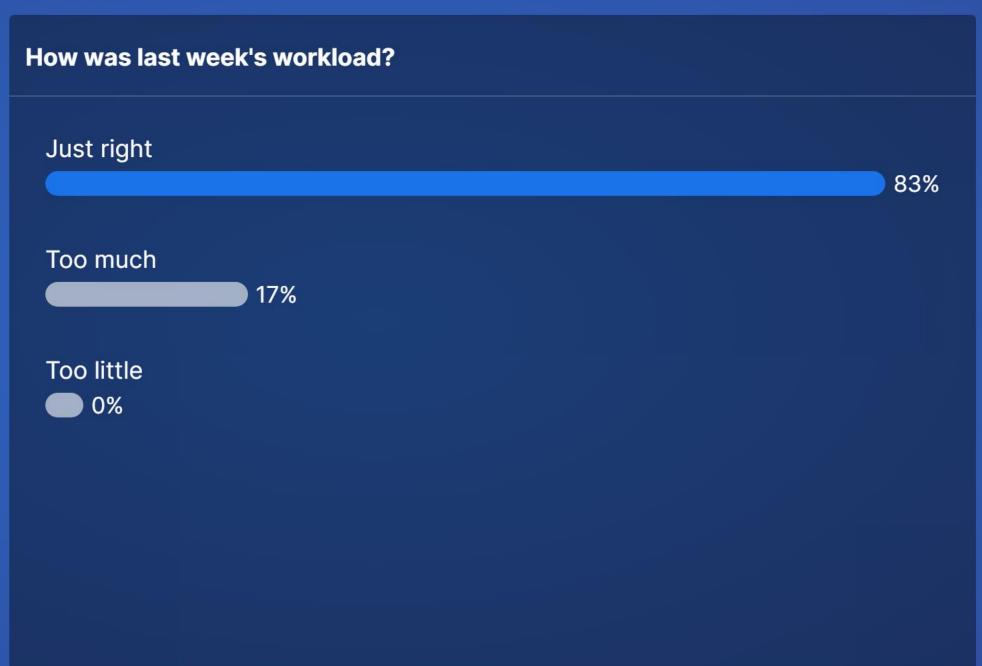














Extension for Group Assignment #3 and revisions?

Yes, we need moar time 😭

92%

No, we wanna code/survey sooner!



8%

Doesn't matter as long as can still submit earlier



0%



What does open source mean to you?

Publicly available and accessible community

Accessible open source Not closed

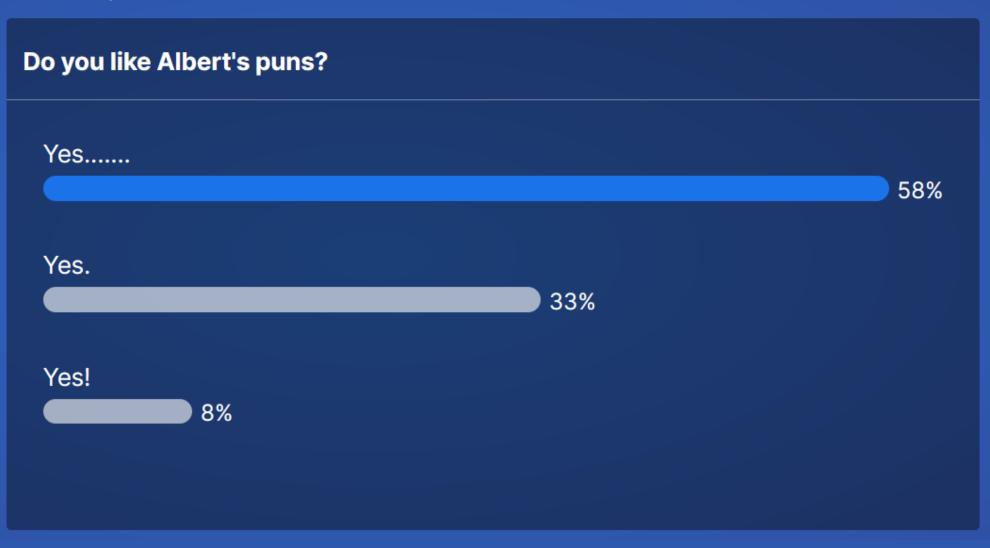
what software should be

open to the public

morework

collective development





Theme of the week

How do you decide what technology is right?

Connecting from last week



Technology conflating anti-Zionism (a settler-colonial project) with anti-Semitism

Connecting this topic from last week



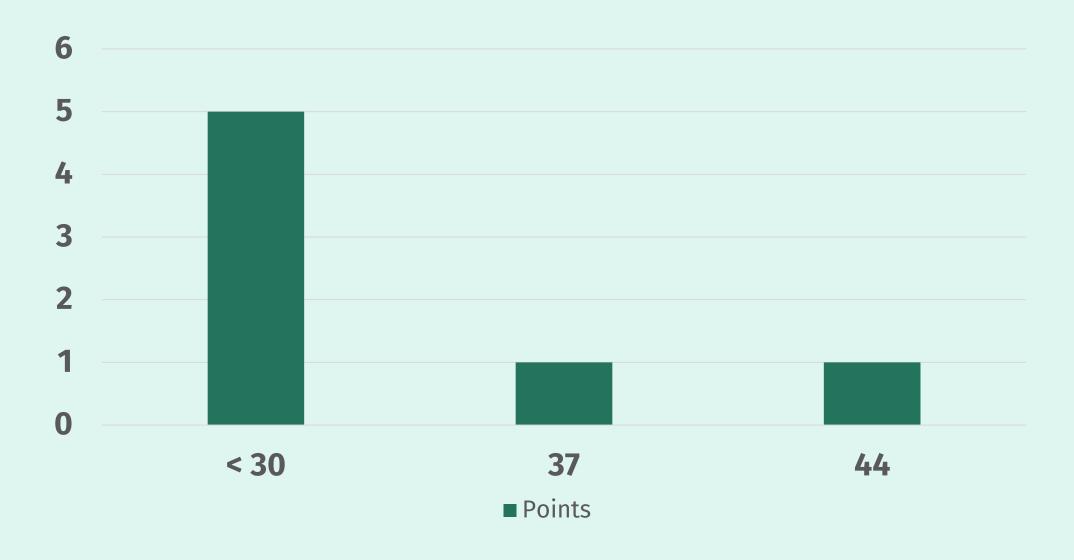
List of sponsors of the ITforIDF conference in Tel Aviv.

Keep an eye on these names!

What is on the horizon

	Monday	Wednesday
Week 4	Open Source	Survey Lab
Week 5	Design Justice Group Project Surveys	UI/UX Lab
Week 6	MapLibre Plugins Lab Rough Draft	Final Lecture Final Presentations

Memo Grade Distribution



Overall Class Grade Distribution



What is on the horizon - Assignments

	Monday	Wednesday
Week 4	Thinking Cap #4	Lab #3
Week 5	Thinking Cap #5 Group - Surveys	Lab #4
Week 6	Thinking Cap #6 In-class Lab #5 Group - Rough Drafts	Group - Final

Group Assignment #3



Should revise your survey as soon as possible to make the assignment easier!

Not many assignments left!

- 2 Labs
- 3 Thinking Caps
- 1 In-class assignment (Lab)
- 3 Group Assignments

Light at the end of tunnel!



https://www.bbc.com/news/articles/cger582weplo

Open Source and Web Mapping

Lecture

Lecture
Visiting Voice
Group Time

Open Source and Web Mapping

Alwards

Lecture

Alwards

Lecture

Visiting Voice



ALWARDS

NICE JOB STAYING THE BOY AND THE HERON TOPIC! (A LITTLE LATE THOUGH!)

Kaila Imada

My ethical views with society and technology has only recently come to some level of maturity after experiencing and ethical dilemma myself...While Crampton in some ways mirror the SAG-AFTRA strike, because they are attempting to nail down a solution, I do think that finding a code of conduct is necessary. However, we are currently seeing the

issues of his warnings of solutions sometimes being as bad as the problems.



Sadhana Jeyakumar

"Growing up, I often heard that technology is merely a tool, and its impact depends on how it is used. This idea was usually accompanied with the common knife analogy, such that a knife is just a tool as a surgeon can use it to save lives while a murderer can use it to harm others... viewing technology as a model rather than a tool aligns with my belief that ethical considerations must address both societal and technological aspects, as neither side is completely guilty or innocent when it comes to social challenges..."

THE THINKIKI-NG CAP OF THE WEEK

Michelle Zhao

When it comes to society and technology, I believe simply that the well-being of people should be prioritized. I don't think social media in its current and most popular form could ever become an ethical tool even if the world suddenly shifted to a different -ism overnight because, ultimately, it has become a tool against people rather than for people; the bad actors right now may be capitalism and technocratic agendas, but unregulated technology like social media and big data analysis inherently have made it and will continue to make it much easier for the elite to abuse their power and influence over the rest of society.



NICE STYLING OF BULLET PONYO-INTS!

Jasmine Reyes





https://shintuzd.github.io/23s-asiaam-191a-assignments/week2/maps.html

I'VE SPIRITED AWAY-ITED FOR SOMEONE TO ADD A MENU HEADER

Caitlynn Hauw



home articles music contact

bio

hello! my name is caitlynn and i'm a second-year cognitive science major at ucla. due to my personal experiences, i'm passionate about mental health advocacy and youth representation in public health. although i intend to pursue a career in clincial psychology, i also really love web development! however, i'm learning through this class that i love people far more.



restaurants I have eaten ramen at in san diego

> MATLAHUAYL STATE MARINE RESERVE



https://caitlynn-hauw.github.io/aa191-assignments/week2/index.html

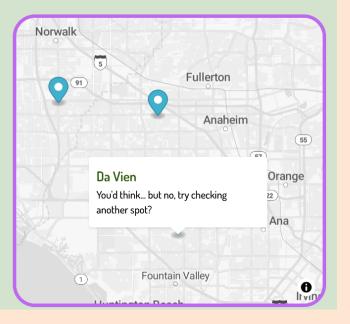
NICE MY NEIGHBOR TOTOROLL-OVER MOUSE EVENT

Paige Wu



Where in the world is... Paige Wu???





PORCO ROSSOLD ME ON YOUR ANIMATED BUTTONS

Kaila Imada



https://kimada62.github.io/24su-asiaam-191a-labs/week2/

Kiana Tran

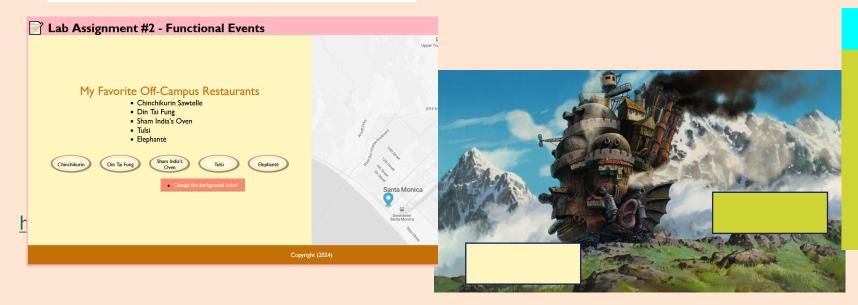




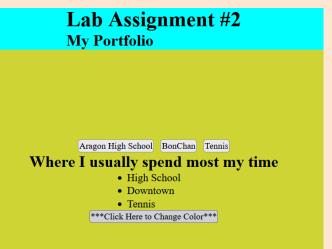
https://kianaptran.github.io/24su-asiaam-191a-labs/week2submission/

NICE RANDOM BUTTON CHANGING THE BACKGROUND CSS COLOR'S HOWL'S MOVING CASTLE-MENT!

Sadhana Jeyakumar



Keiya Wada



https://sjeyakum.github.io/24su-aas191a-labs/week2/index.html

NAUSICAÄNIMATED BUTTONS AND POPUPS FOR THE WIN(D)!

Michelle Zhao

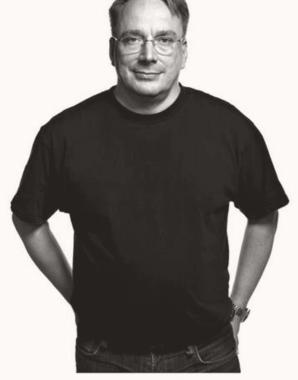


PRINCESS MONONO-CAVE-IN AGAIN FOR THIS LAB OF THE WEEK!

Justine Lim













Open Source







The Three Opens

- Open Source
- Open Standards
- Open Data

My Thinking Cap

Personally, I believe that technology and society need to be viewed holistically- as a part of the entire human experience.

We should constantly evaluate how society and technology are connected and need to affect each other in a balanced way.

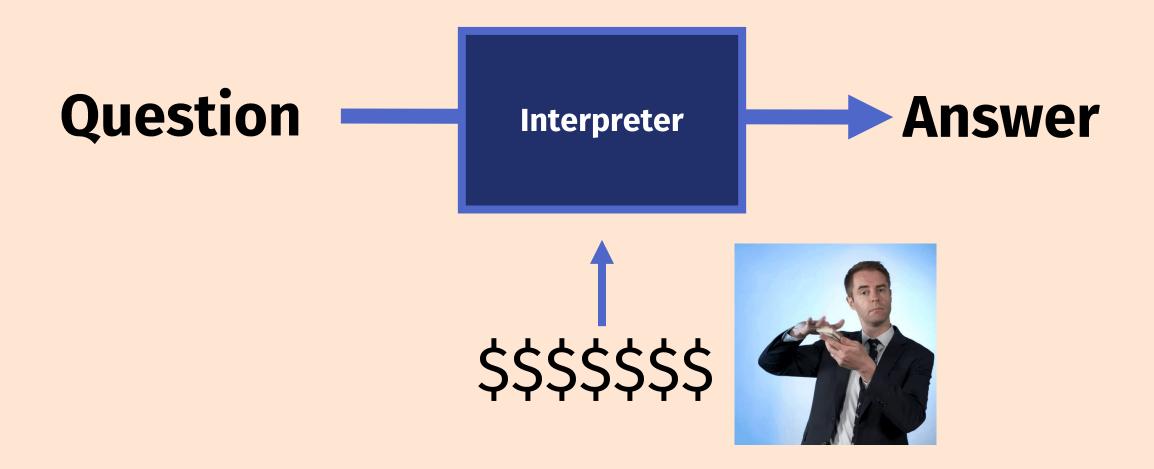
I believe ethics uplift civil society because I accept the need to look at communities as a whole and not just subjects/sources of data.

Leads to.....

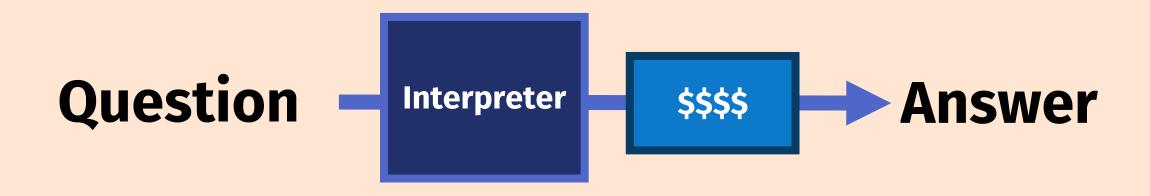
A collaborative open-community

Is this enough?

What is programming?



What is programming?



Importance of an open internet.....

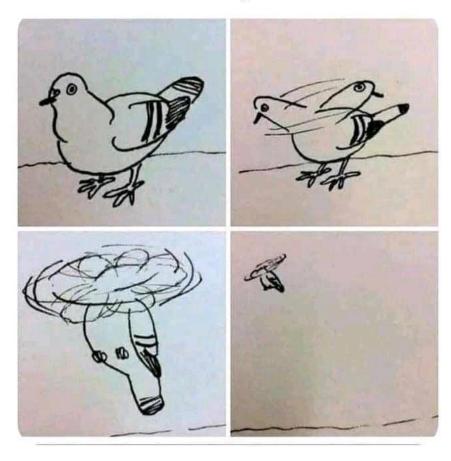


A programmer vs. non-programmer

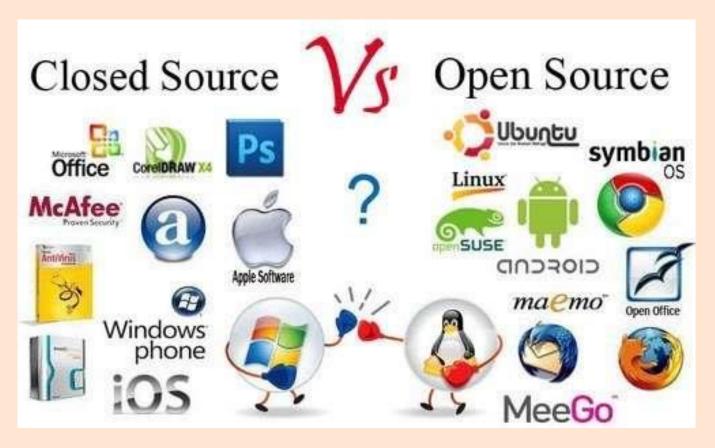


When we see code, we don't give up!

When your program is a complete mess, but it does its job

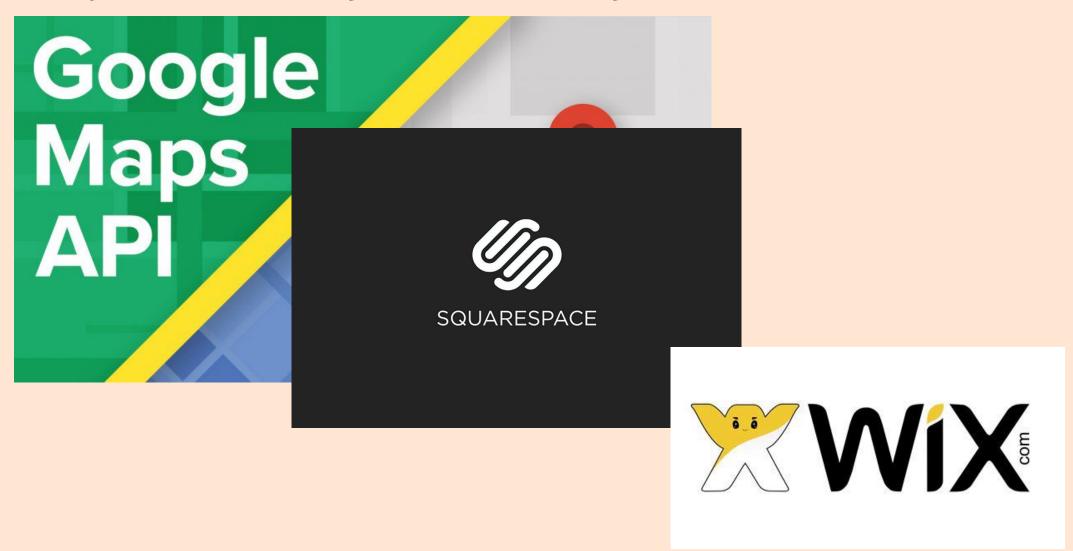


Ethics of technology usage



We use a mix of open and closed source technology on a day-to-day basis, but what is your ethical reasoning for doing so?

So why JavaScript and MapLibre instead of.....



It's like learning to cook with only a microwave.....



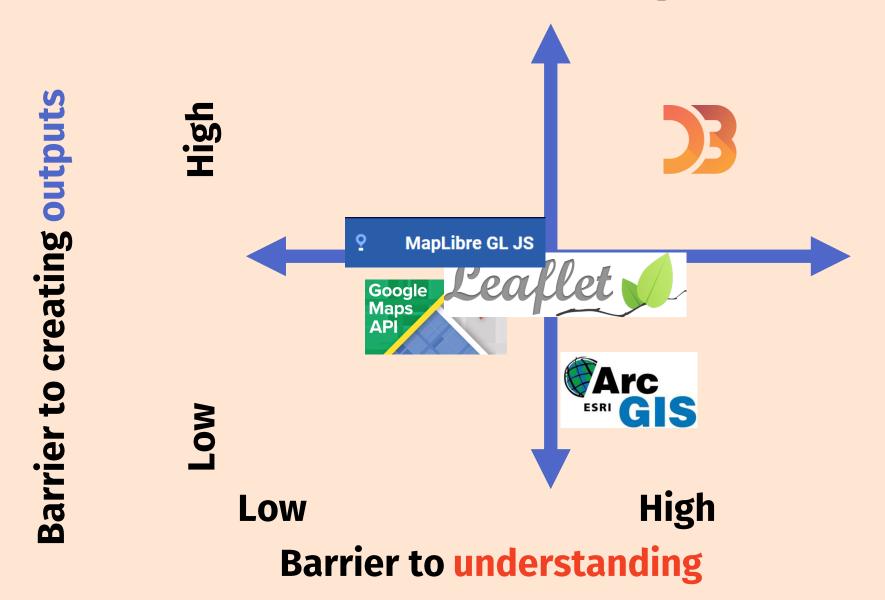
For convenience, you ignore

- Ingredients
- Healthiness
- Dependency on the tool

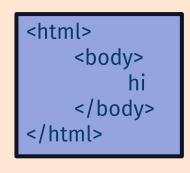
But most importantly...

Why are cooking in the first place!!

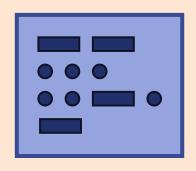
GIS Technologies



Open-source vs Closed-Source



VS

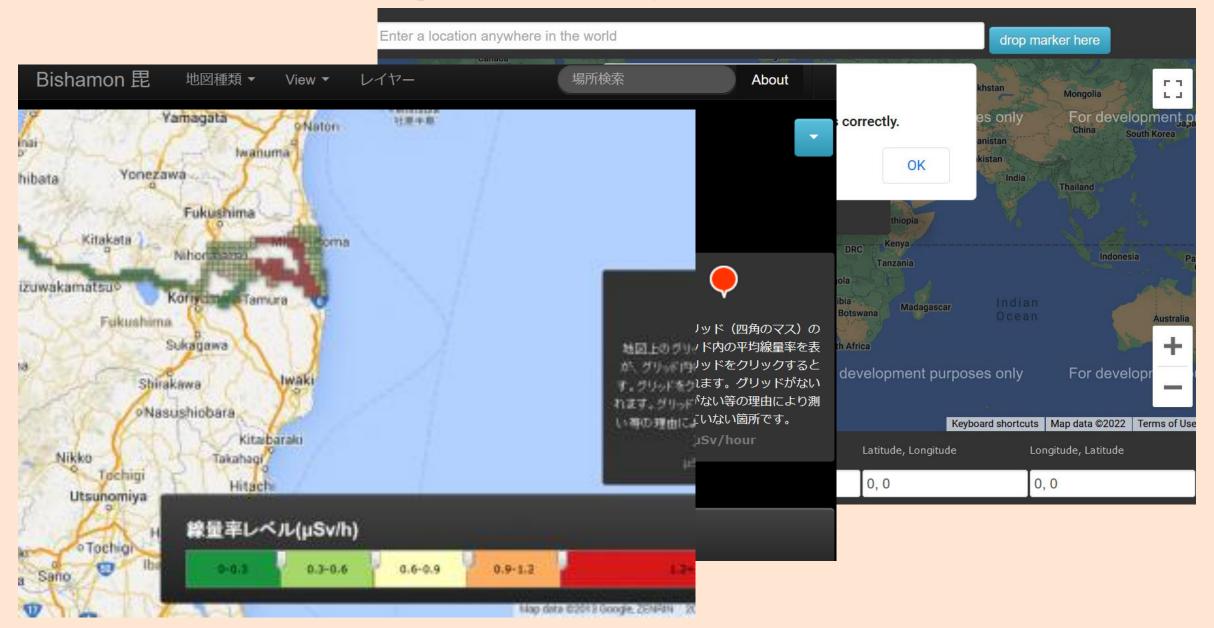


You can see the code

You can never see the code

Think about why is this important?

Google API Depreciation



Quick History on software.....



Quick History on software.....



EDB° ENTERPRISED	Bruce Momjian		Joe Conway	#	Alvaro Herrera
EDB	Thomas Munro		Tom Lane	+	Andrew Dunstan
EDB	Robert Haas		Stephen Frost	4	Peter Eisentraut
EDB	Amit Kapila		Peter Geoghegan	+	Tomas Vondra
EDB° ENTERPRISEDB	Andres Freund	Post gres	Teodor Sigaev	Pivotal	Heikki Linnakangas
vmware [*]	Kevin Grittner	Professional Profe	Alexander Korotkov	Mit	Greg Stark
vmware [*]	Michael Paquier	aws	Jeff Davis	Redpill Linpr•	Magnus Hagander
NTT	Fujii Masao		Michael Meskes	S	Tatsuo Ishii
NTT	Etsuro Fujita		Noah Misch		Dean Rasheed

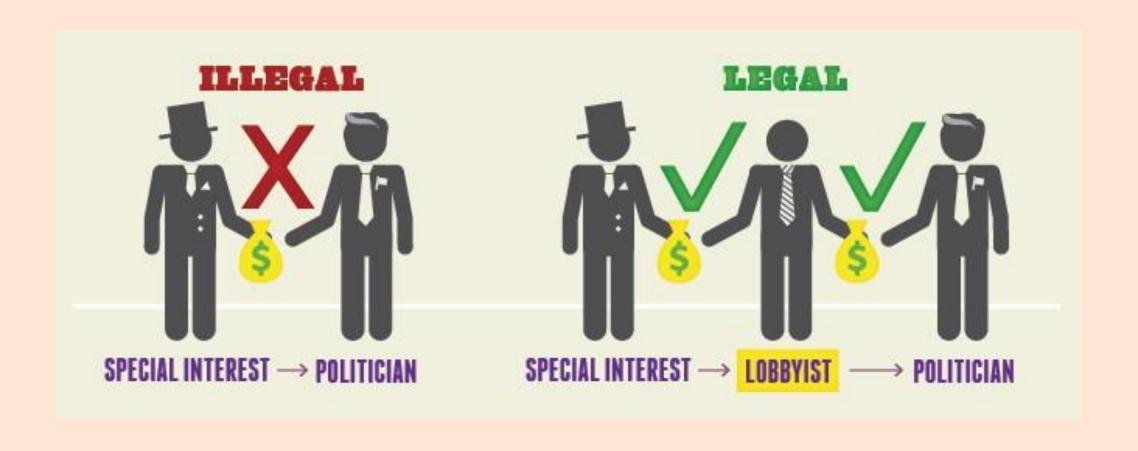
EDB	Bruce Momjian		Joe Conway	#	Alvaro Herrera
EDB	Thomas Munro		Tom Lane	+	Andrew Dunstan
EDB	Robert Haas		Stephen Frost	4	Peter Eisentraut
EDB ENTERPRISEDB	Amit Kapila		Peter Geoghegan	4	Tomas Vondra
EDB ENTERPRISEDB	Andres Freund	Postgres	Teodor Sigaev	Pivotal	Heikki Linnakangas
vmware [*]	Kevin Grittner	Professional	Alexander Korotkov	Mir	Greg Stark
vmware	Michael Paquier	aws	Jeff Davis	Redpill Linpr•	Magnus Hagander
NTT	Fujii Masao		Michael Meskes	Ø	Tatsuo Ishii
NTT	Etsuro Fujita		Noah Misch		Dean Rasheed

Is this fair?



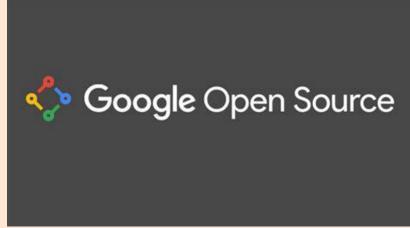
Tragedy of the commons – when individuals access a public resource for only their own interest and it depletes.

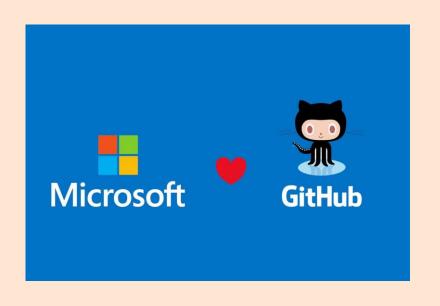
Have coporations infiltrated open source?



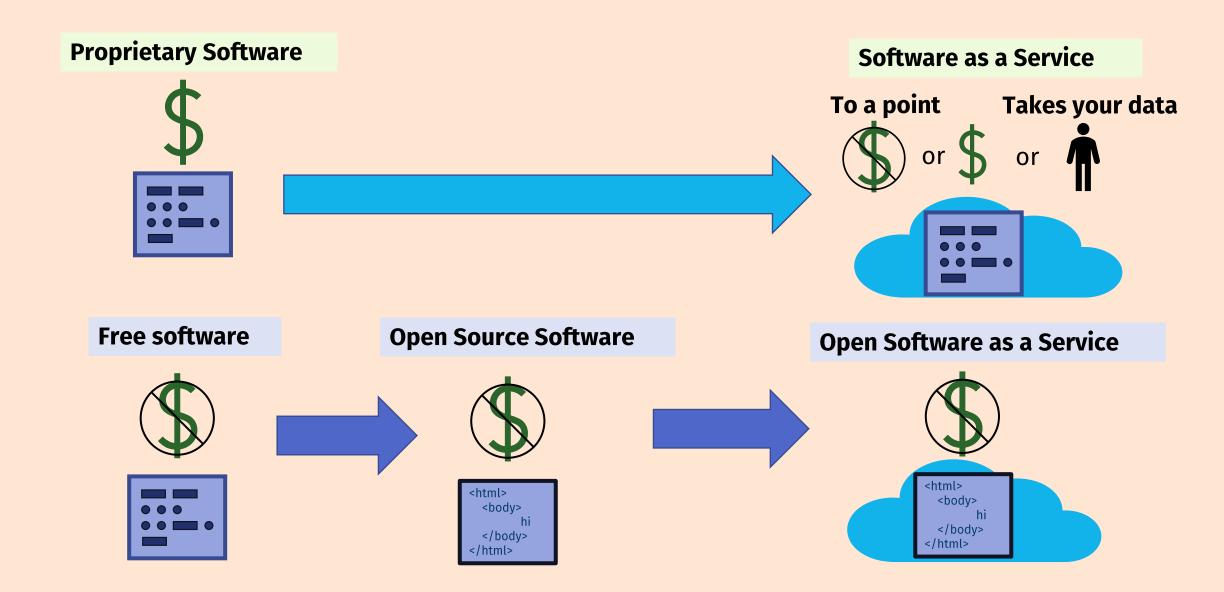
Have coporations infiltrated open source?







A summary of Open vs. Close source



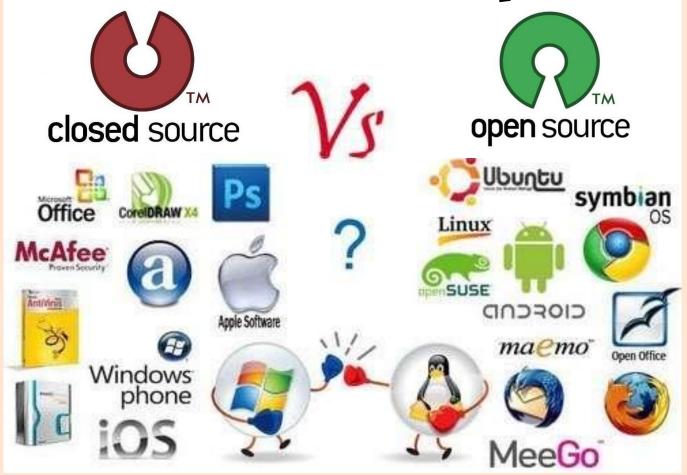
Open Source

No costs and long-term application viability

Vs. Closed Source

Short-term costs and variable application viability

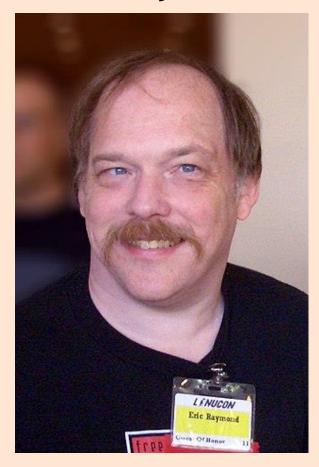
Cost vs benefits of open source



Are you trying to simply finish an application a fast a possible (microwave-approach) or is it for a long-term purpose?

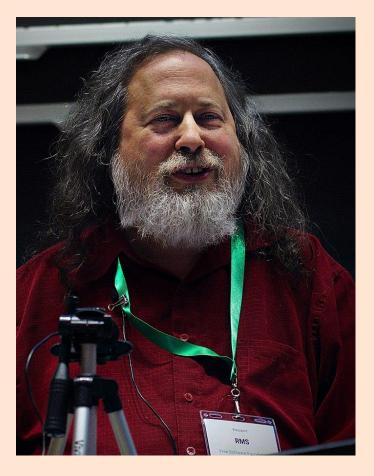
Issues with open source...

Eric S. Raymond



Founder of Open Source Initiative

Richard Stallman



Founder of Free and Open Source Foundation

Issues with open source...

Eric S. Raymond

Co-founder of OSI Banned From Mailing Lists

Written by Sue Gee Wednesday, 11 March 2020

Eric S Raymond, one of the founders of the Open Source Initiative and its president for the first six years, has been banned from two OSI mailing lists following messages whose tone violated the code of conduct.

https://www.i-programmer.info/news/136open-source/13535-co-founder-of-osibanned-from-.html

Richard Stallman

Return of Stallman to FSF sparks outrage among open-source and free software leaders

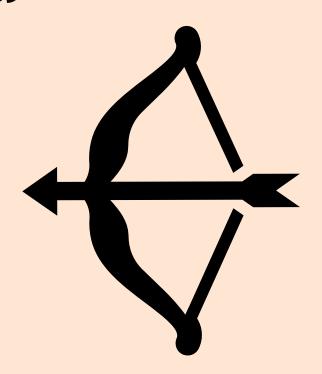
()

Steven J. Vaughan-Nichols · 3/24/2021

https://www.msn.com/enus/news/technology/return-of-stallman-to-fsfsparks-outrage-among-open-source-and-freesoftware-leaders/ar-BB1eVPC8

Issues with open source:

Detaches technology from ethics and treats it as "neutral"



"Weapons aren't bad, it's up to the user."

What is an alternative to open source?



Hint: It's related to ethics!

Ethical Source Licensing



Established in 2019

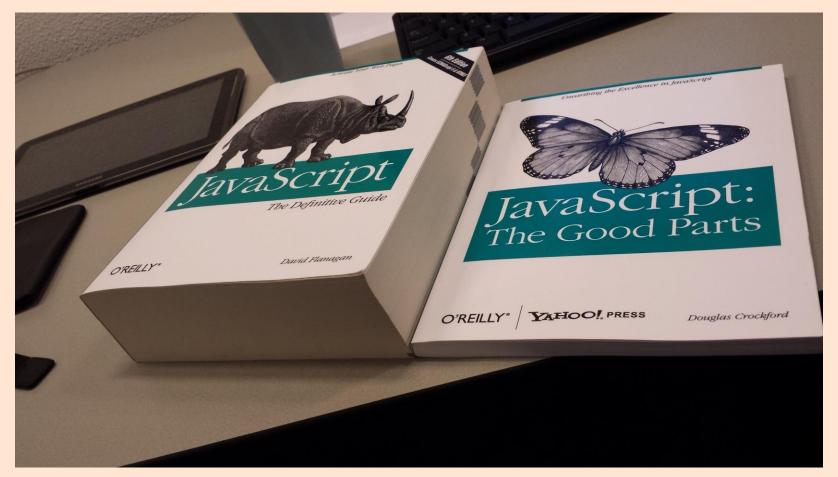
https://ethicalsource.dev/

What is Ethical Source Licensing?



Hippocratic Oath for Software Usage and Licensing: Thou shall not do harm with this software.

Mapping this back to maps and coding



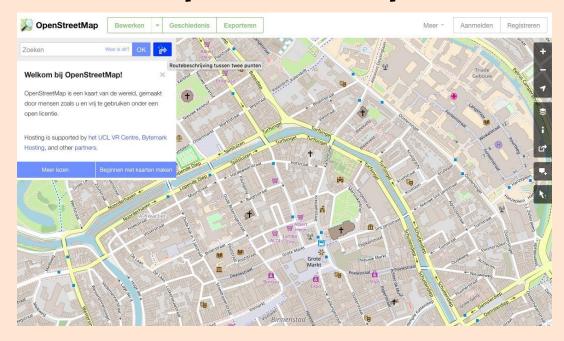
We have the ability to make web maps, but we need to think about the ethical implications of **any** technology.

Mapping this back to maps and coding

Google Maps



Open Street Map



Would you contribute data willingly to Google Maps?
What are you giving up/gaining between using
Google Maps vs. Open Street Map?

Example: Geocoding



Name: Los Angeles, CA,USA

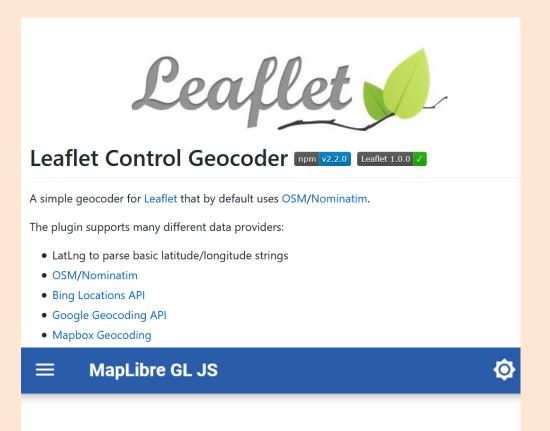
Country: United States

Layer: Locality

Lon.: -118.25703

Lat.: 34.05513

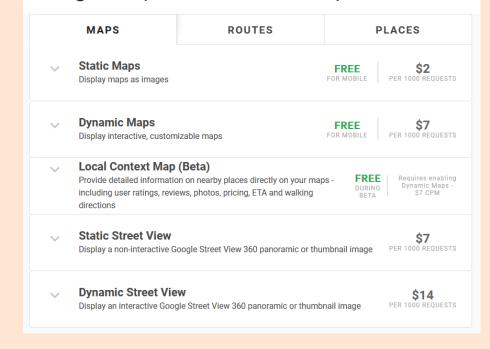
Leaflet and MapLibre vs. Google Maps (again)

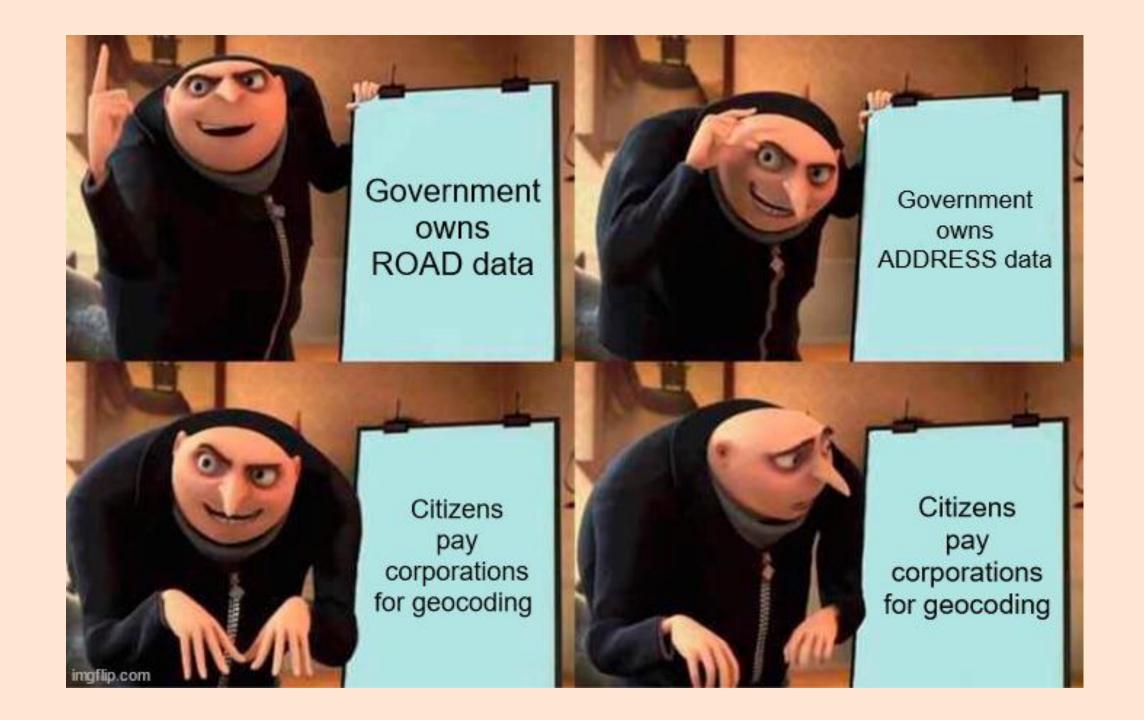


Geocode with Nominatim

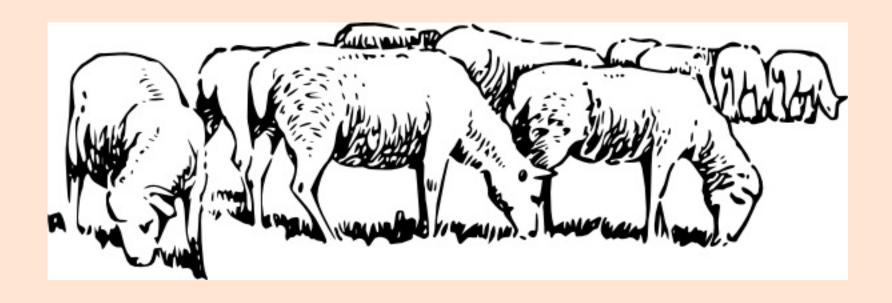
Geocode with Nominatim and the maplibre-gl-geocoder plugin.

Google Maps Platform APIs by Platform D



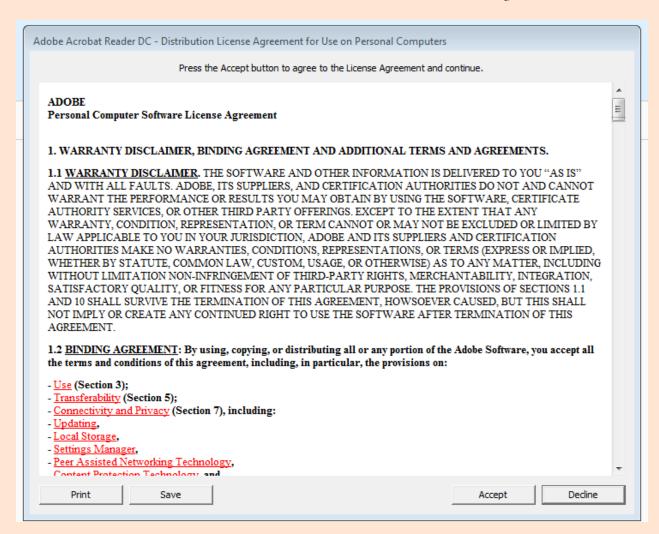


Public data is now the commodity



Governments use to be closed with their data, but even with more "open data," the private sector capitalizes on it.

Data Privacy



Who reads this?! Let's just accept in order to move forward!

Welcome to iCloud

THIS LEGAL AGREEMENT BETWEEN YOU AND APPLE GOVERNS YOUR USE OF THE ICLOUD PRODUCT, SOFTWARE, SERVICES, AND WEBSITES (COLLECTIVELY REFERRED TO AS THE "SERVICE"). IT IS IMPORTANT THAT YOU READ AND UNDERSTAND THE FOLLOWING TERMS. BY CLICKING "AGREE," YOU ARE AGREEING THAT THESE TERMS WILL APPLY IF YOU CHOOSE TO ACCESS OR USE THE SERVICE.

Apple is the provider of the Service, which permits you to utilize certain Internet services, including storing your personal content (such as contacts, calendars, photos, notes, reminders, documents, app data, and iCloud email) and making it accessible on your compatible devices and computers, and certain location based services, only under the terms and conditions set forth in this Agreement. iCloud is automatically enabled when you are running devices on iOS 9 or later and sign in with your Apple ID during device setup, unless you are upgrading the device and have previously chosen not to enable iCloud. You can disable iCloud in Settings. When iCloud is enabled, your content will be automatically sent to and stored by Apple, so you can later access that content or have content wirelessly pushed to your other iCloud-enabled devices or computers.

I. REQUIREMENTS FOR USE OF THE SERVICE

Your data is now the commodity



With terms and conditions, your data can be given up for free or traded for convenience.

How far will you (Pokemon) Go to protect your private data?

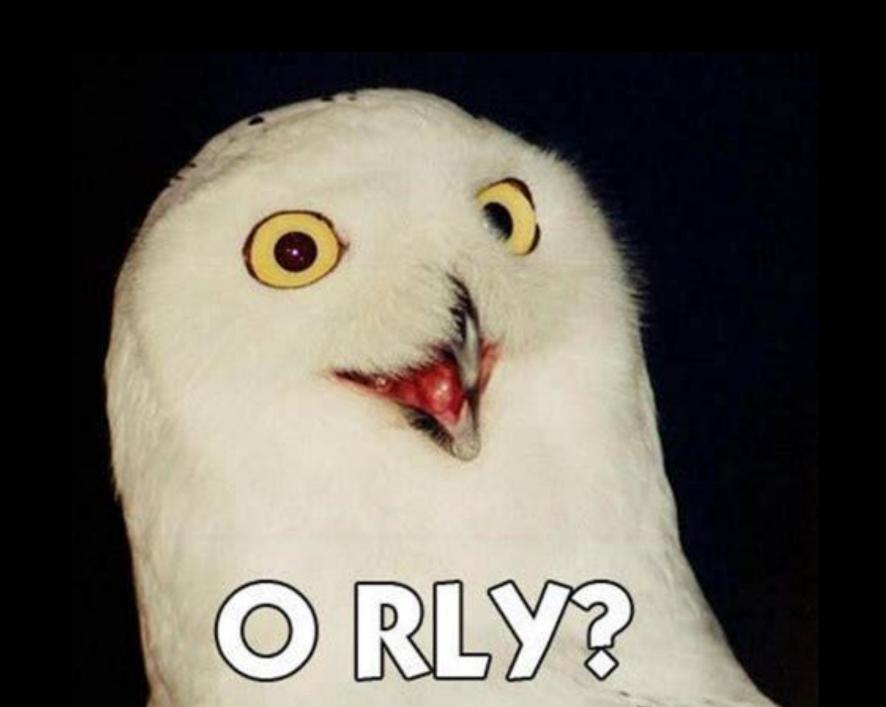


Your location data and patterns in exchange for... fun?

"If you're doing something you don't want anyone to know, maybe you shouldn't be doing it in the first place."

- Eric Schmidt, Former Google CEO





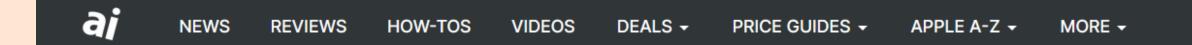
SECURITY

Google faces \$5 billion lawsuit in U.S. for tracking 'private' internet use

Google "cannot continue to engage in the covert and unauthorized data collection from virtually every American with a computer or phone," the complaint said.

June 2, 2020, 3:50 PM PDT / Updated June 3, 2020, 5:00 AM PDT

By Reuters

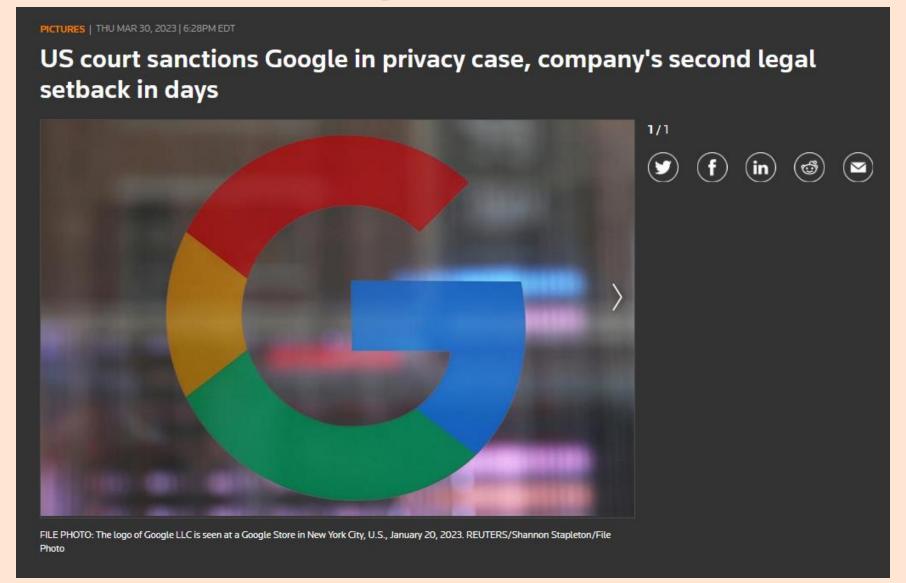


Google fails to end 'private browsing' snooping lawsuit



By Malcolm Owen | Mar 13, 2021

https://appleinsider.com/articles/21/03/13/google-fails-to-end-private-browsing-snooping-lawsuit



Bloomberg

Google's Antitrust Crisis: What's at Stake | Epic's Big Win | \$700 Million Google Play Deal | The Epic

Politics

Google Ad Tech Antitrust Suit Will Go to Trial, Judge Rules

- Judge rejects request to decide case before September trial
- Justice Department alleges monopoly over advertising tech













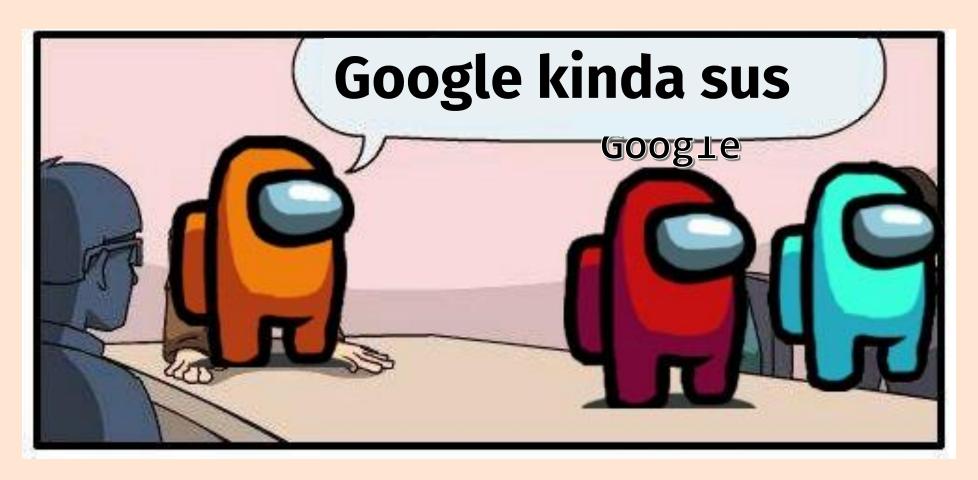


By <u>Leah Nylen</u>

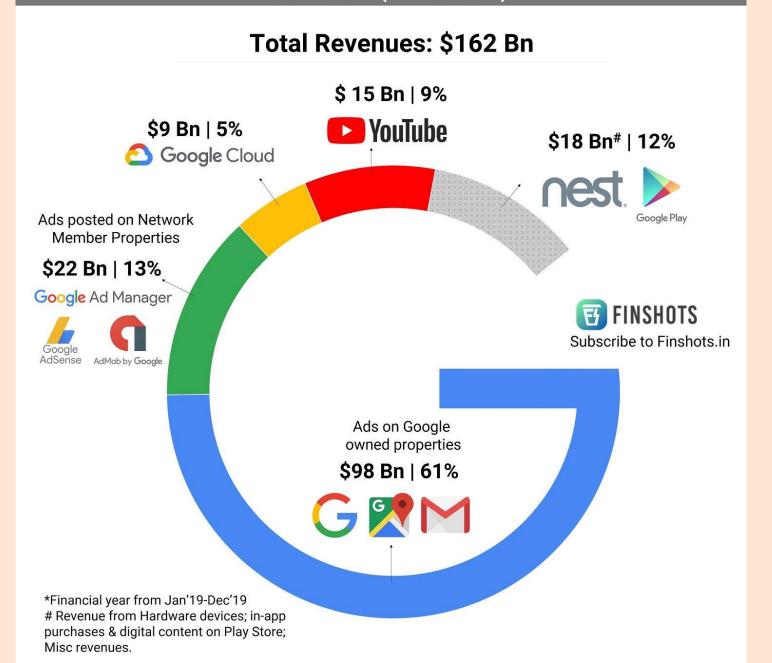
June 14, 2024 at 9:08 AM PDT

https://www.bloomberg.com/news/articles/2024-06-14/google-ad-tech-antitrust-suit-will-go-to-trial-judge-rules

How important are Ads to Google?



BREAKING DOWN REVENUE STREAMS OF GOOGLE (ALPHABET)



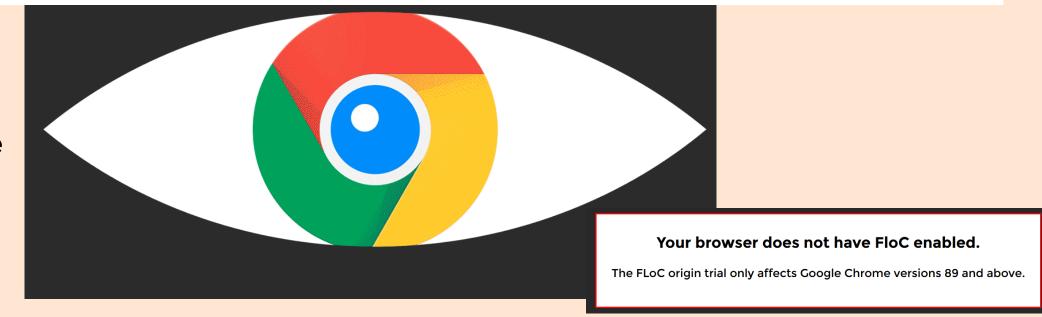


How important are Ads to Google in 2021?

Google Is Testing Its Controversial New Ad Targeting Tech in Millions of Browsers. Here's What We Know.

BY BENNETT CYPHERS | MARCH 30, 2021

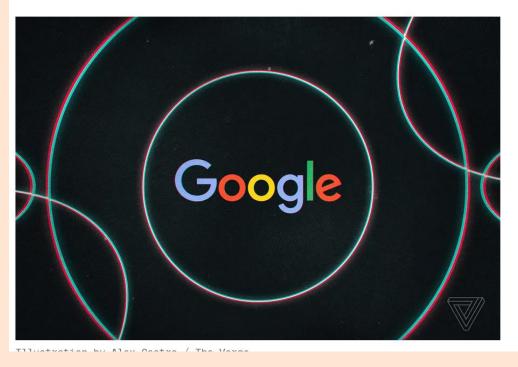
FloC = Unblockable cookies. Yay!



https://www.eff.org/deeplinks/2021/03/google-testing-its-controversial-new-ad-targeting-tech-millions-browsers-heres

How important are Ads to Google in 2022?

Google abandons FLoC, introduces Topics API to replace tracking cookies



/ Google's new concept assigns users five interests per week based on web activity

By EMMA ROTH

Updated Jan 25, 2022, 11:45 AM PST | O Comments / O New







How important are Ads to Google in 2023?

Shot down: Google's grand fancy plan for proprivacy targeted ads

W3C's techies have a few choice words for the Chocolate Factory

Thomas Claburn

Wed 18 Jan 2023 // 02:01 UTC

Google's plan to reinvent ad targeting for the postponed post-cookie era has again been complicated by privacy concerns.

After the Chocolate Factory's Federated Learning of Cohorts (FLoC) proposal for delivering interest-based ads in a privacy-preserving way turned out to have less privacy than the package's ingredient list suggested, the ad biz reworked the technology and rebranded it Topics.

Google trying to end Ad Blockers

Ad blockers struggle under Chrome's new rules

As deadline for mandatory code rewrite approaches, Manifest v3 still looks like a step backward

Thomas Claburn

Thu 8 Sep 2022 // 10:28 UTC

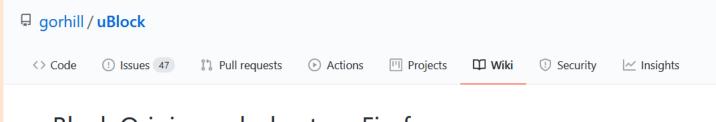
ANALYSIS Next year, Chrome browser extensions – such as ad blockers and other privacy tools – will stop working if they are reliant on an API called Manifest v2 (MV2).

So far, when these extensions are rewritten to work with Chrome's new Manifest v3 (MV3) API, you tend to end up with hobbled software that doesn't work as well.

How about in 2024?



Outfoxing Google with Firefox



uBlock Origin works best on Firefox

Raymond Hill edited this page 3 days ago \cdot 5 revisions

This document explains why uBO works best in Firefox.

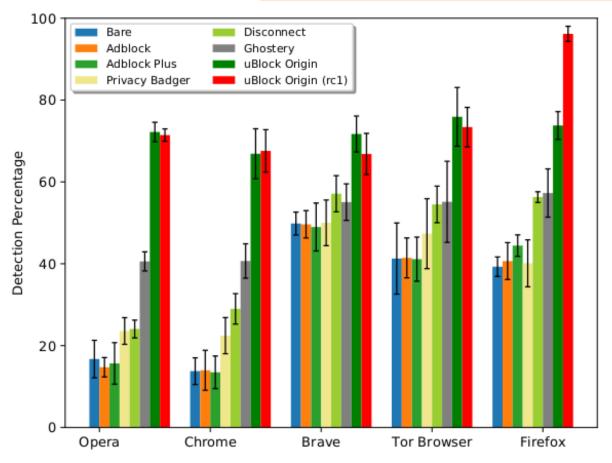
CNAME-uncloaking

Ability to uncloak 3rd-party servers disguised as 1st-party through the use of CNAME record. The effect of this is to make uBO on Firefox the most efficient at blocking 3rd-party trackers relative to other other browser/blocker pairs:

The dark green/red bars are uBO before/after it gained ability to uncloak CNAMEs on Firefox.

Source: "Characterizing CNAME Cloaking-Based Tracking on the Web" at Asia Pacific Network Information Centre, August 2020.

https://github.com/gorhill/uBlock/wiki/ uBlock-Origin-works-best-on-Firefox



Beyond just ads

Google's Gemini AI caught scanning Google Drive hosted PDF files without permission — user complains feature can't be disabled



By Christopher Harper published yesterday

Kevin Bankston, a Senior Advisor on Al Governance, discusses this concerning Google Gemini behavior.

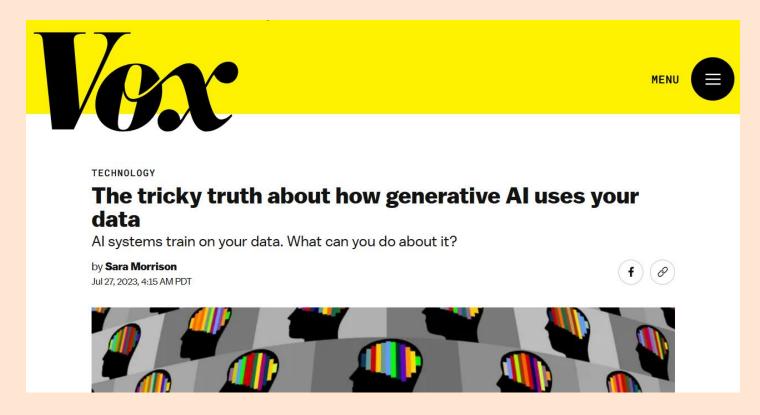
https://www.tomshardware.com/techindustry/artificial-intelligence/gemini-ai-caughtscanning-google-drive-hosted-pdf-files-withoutpermission-user-complains-feature-cant-be-disabled

Beyond just ads



https://www.theregister.com/2024/07/12/chromium_api_system_information/

Why??



https://www.vox.com/technology/2023/7/27/23808499/ai-openai-google-meta-data-privacy-nope

Google is not alone.

The Observer Facebook Another huge data breach, another stony silence from Facebook

Carole Cadwalladr



The social media giant is still a law unto itself. Can anybody hold it to account?

Google is not alone.

Meta is planning to use your Facebook and Instagram posts to train AI - and not everyone can opt out

Facebook and Instagram users in the UK and the European Union may soon see their posts used to train artificial intelligence.

By Mickey Carroll, science and technology reporter

Google is not alone.



https://www.npr.org/2024/07/12/nx-s1-5037736/att-data-breach-call-text-records

Privacy should be a right.

"Arguing that you don't care about the right to privacy because you have nothing to hide is no different than saying you don't care about free speech because you have nothing to say."

-Edward Snowden

https://www.mic.com/articles/188563/ who-cares-i-have-nothing-to-hidewhy-the-popular-response-to-onlineprivacy-is-so-flawed



As should the right to public information



"What are the differences between Mark Zuckerberg and me? I give private information on corporations to you for free, and I'm a villain.

Zuckerberg gives your private information to corporations for money and he's Man of the Year."

Julian Assange

Consider

Would you trade in all your passwords in order to use Facebook?

How about handing your phone off to a stranger?

Who decides what is "right" and "wrong"?

We shouldn't force those in our surveys to agree all of those without their consent or "on accident."

So, why is this important?

We will be working with people.

Working with civil society, there is a non-verbal contract based in the tool that you choose.

Helps us to think of ways to take control of data back towards community ownership

Why is this important?

Think what is being collected and how it could be misused or commodified:

- Images
- Video
- Words
- Names
- Addresses

Open Source and Open Data in Summary



Think about what information can be helpful for community members/local organizations



Teach and give ownership to local people (Tech included)



Extract information without assessing safety and privacy



Use any tool available because it's "easy"

Open Source and Open Data



Try to use tools and data that **empowers** instead of commodifies **people**. (Including yourself!!!)

Ethical Software and Developing for Civil Society

Wrap-up

Lecture

Wrap-up

Group Time

Thinking Cap for the week:

What do you think about design justice? Would open-source projects benefit from considering it? How might you apply Design Justice in your designs going forward?

Assignments

Due Wednesday 7/17:

- 1. Lab Assignment #3
- 2. Pre-Lab reading

Seunghee Cho

Visiting Voice

Lecture
Visiting Voice
Group Time

Seunghee Cho



Seunghee Cho is a regional Sourcing Specialist at <u>TomTom</u> and a volunteer with the <u>UN Smart Maps initiative</u>. She has also led mapathon events and is an active part of the <u>OpenStreetMap</u> community in Korea.

Designing Community Focused Surveys

Survey Lecture

Logistics

Lecture

Survey Lecture

Designing Community Focused Surveys

Let the community speak for itself.

We should not be making any "conclusions"

Main points



1. Test your survey!



2. We are here to listen and empower **NOT** take information and leave.

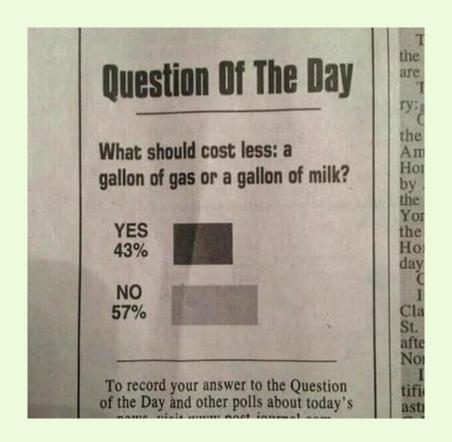


3. Acknowledge and try to avoid as much bias as possible



4. Keep it short.

#1 Reason why you should test your survey.....

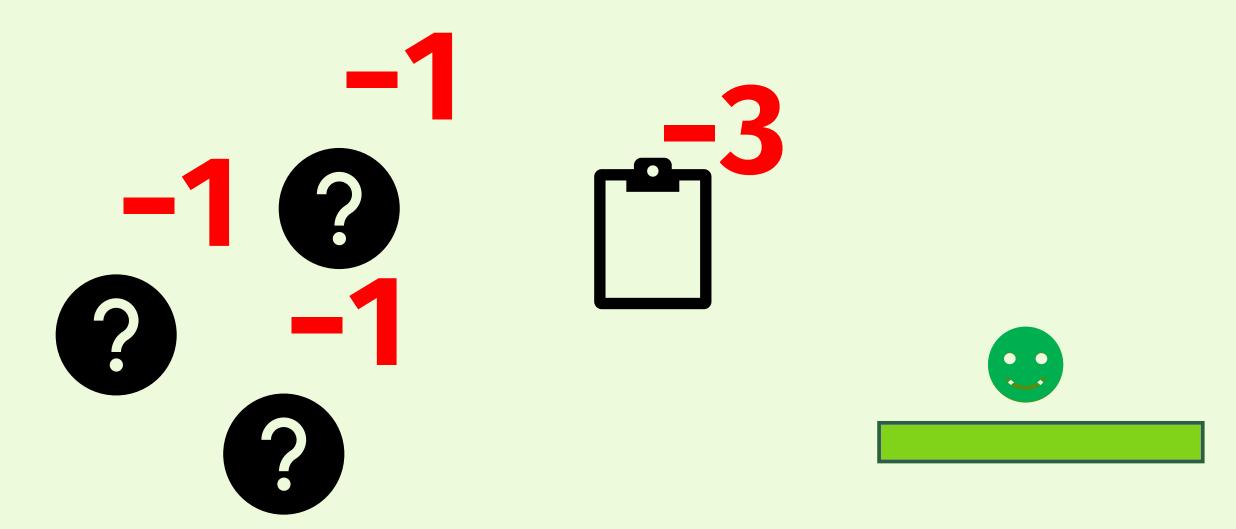


Respecting the community.

Checking for respect

- Each question MUST have an important purpose
- If a question is not necessary, **DO NOT** ask it because it would be "nice to know".
- Less is more.
- Remember: Each question takes someone's time
- Remember: Each survey to contributes to survey fatigue

SURVEY PARTIE SU





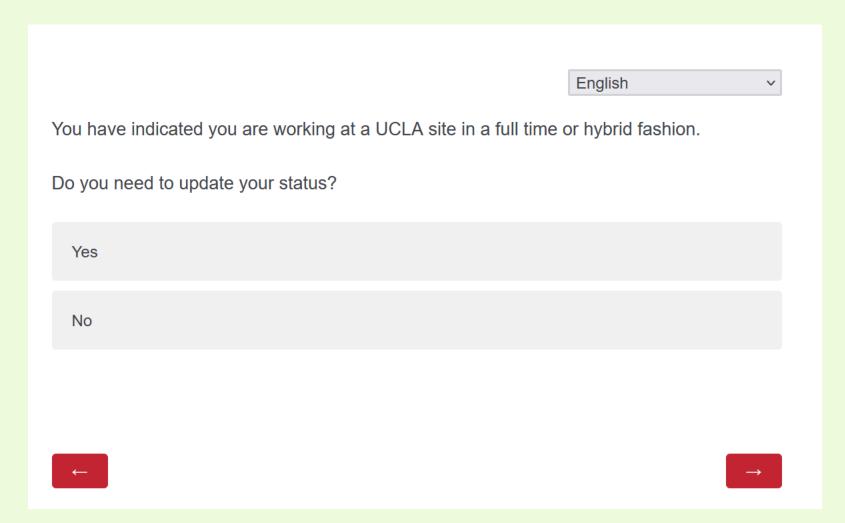
UCLA COVID-19 Symptom Monitoring and Vaccination Verification System

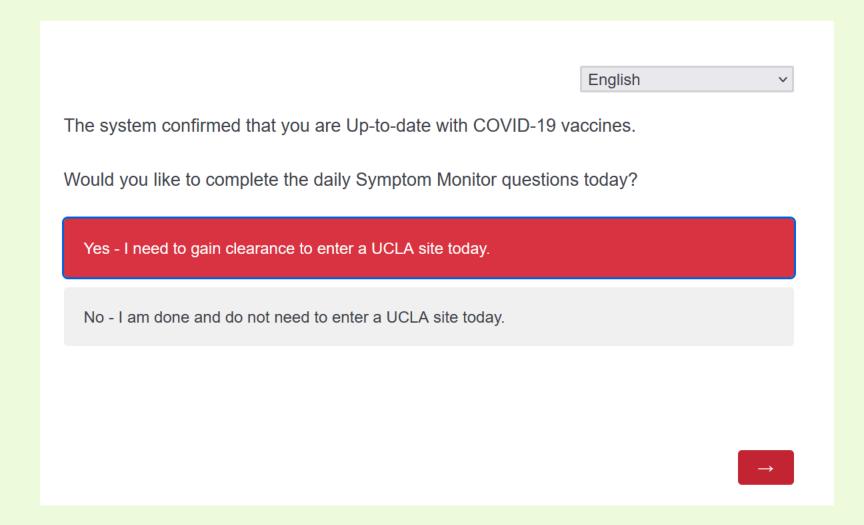
For the COVID-19 daily symptom monitor, select which form you need to access, and then click the arrow button to continue.

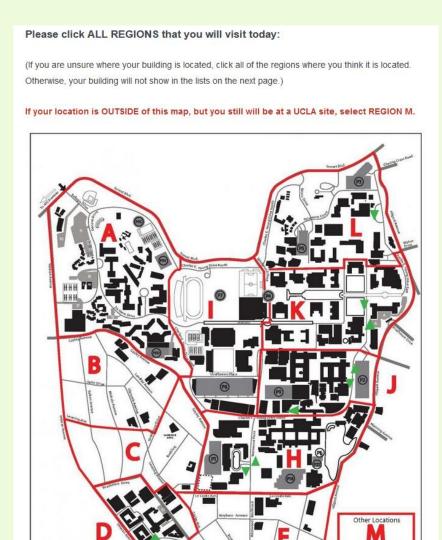
UCLA Staff or UCLA Faculty

UCLA Student or UCLA Student Employee

UCLA Extension Student







Every survey taken reduces the chance the same person will take a survey in the future.

Make your survey pleasant and meaningful for everyone, another chance may not come.

#2 - We are hear 2 listen

How we listen is important

- Access to internet may be limited
- Language barriers
- Dependent on networking
- Limits to the above could create skewed responses

How we listen is important

- Focus on open-ended questions.
- Do not "lead" (i.e. try to get a specific answer) in questions both open-ended and closed.
- If you must include closed-ended, do not have:
 - Tons of options
 - Long options

Example about language barriers





The COVID-19 vaccine is here. And everyone in California will get a turn.

Safe, free, and effective COVID-19 vaccines are now available to everyone age 16 and up. Let's end this pandemic. Check for available appointments and book your vaccination as soon as you can.

Just follow these easy steps:

Answer a few questions, choose a location, then select a date & time.

If no appointments are available in your area, register and we'll notify you when more appointments open up.

Select language



Exhibit A.



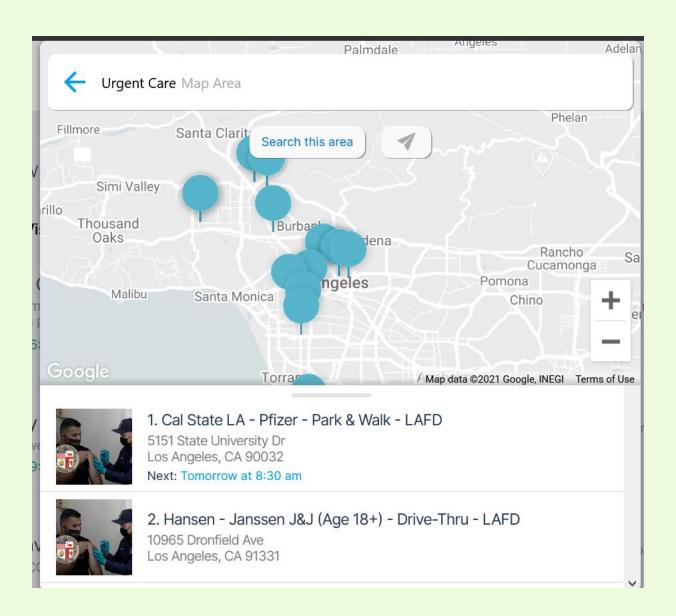


Los Angeles COVID-19 Vaccine Registration

Pick your group and book an appointment

Choose your group		•	
Book Appointment Freq	uently Asked Questions		
Need assistance booking ¿Necesita ayuda para rese	rvar una cita?	Learn More Aprende más	
Phase 1A Phase 1B	Health condition	Health condition or disability ③	

Exhibit B.



Services Departments

COVID-19 vaccine sites

Find out where to get a vaccine if you're eligible. Keep checking for appointments. New locations will be added as they're available. If you need a second dose, contact the location where you got your first dose. Learn more.

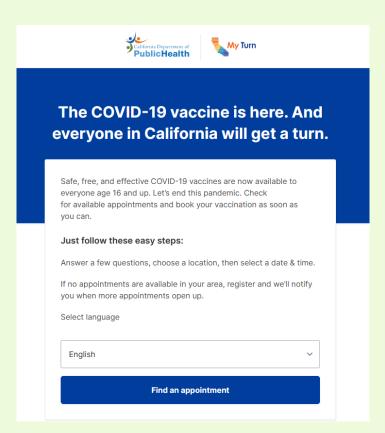
① You must be eligible in order to get vaccinated. See eligibility criteria

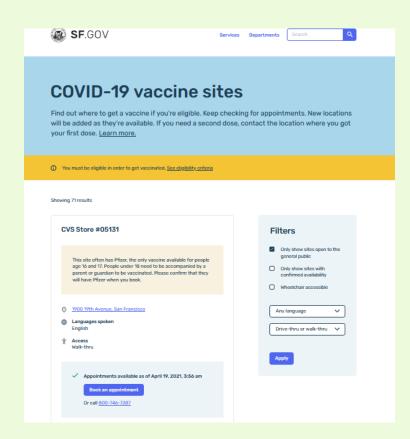
Showing 71 results

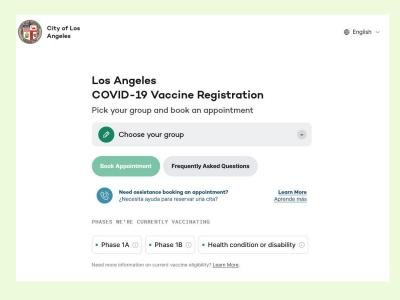
CVS Store #05131 This site often has Pfizer, the only vaccine available for people age 16 and 17. People under 18 need to be accompanied by a parent or guardian to be vaccinated. Please confirm that they will have Pfizer when you book. 1900 19th Avenue, San Francisco Languages spoken English † Access Walk-thru Appointments available as of April 19, 2021, 3:56 am Book an appointment Or call 800-746-7287

Filters
 Only show sites open to the general public
Only show sites with confirmed availability
☐ Wheelchair accessible
Any language V
Drive-thru or walk-thru 💙
Apply

Exhibit C.

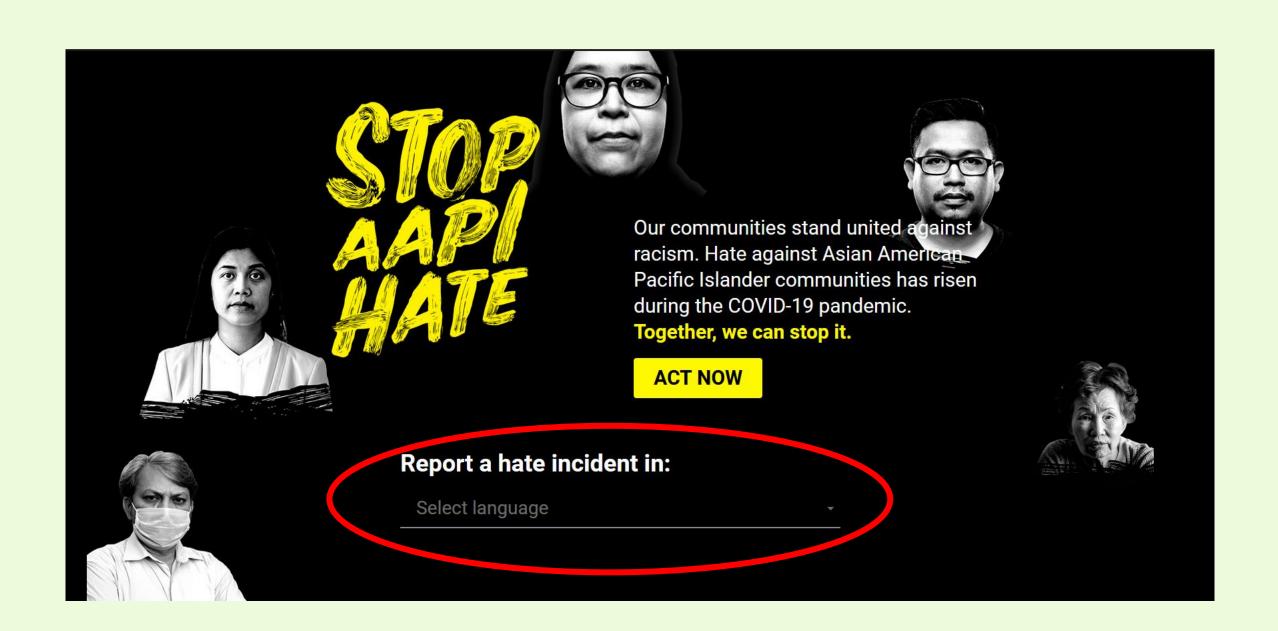






COVID-19 Vaccination Sites

Doing better



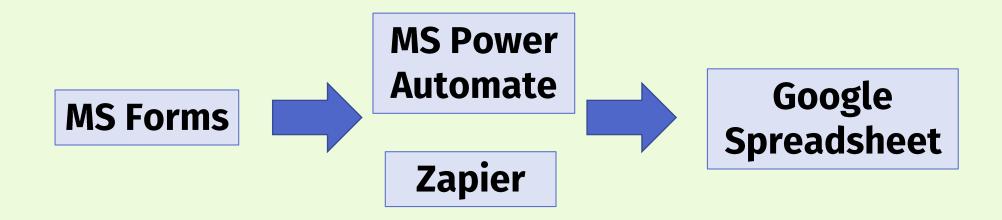
Note: Google Forms vs. Microsoft Forms





https://tinyurl.com/5xe5t7h3

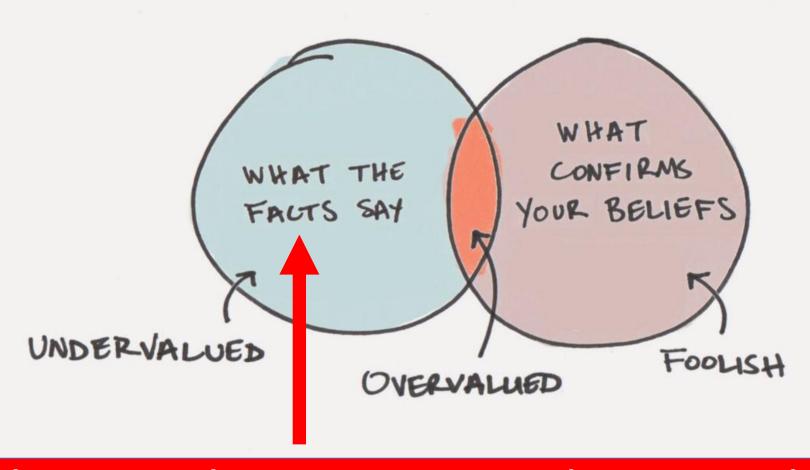
Microsoft Forms still requires connecting to Google Spreadsheet



So while it's better for multi-language but more complicated to set up for what we'll be doing.

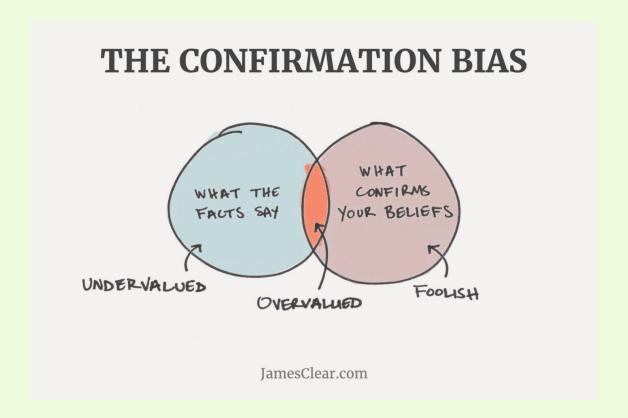
#3 Minimizing Bias

THE CONFIRMATION BIAS



Critical warning: Who determines what is factual?

What is bias?



Preset notions and values. **We all have biases!!!**But we can **learn more from people and ourselves** when we set aside our own bias and listen.

We should challenge our biases because....

- Social problems are difficult to solve if we keep assuming (wrong) things.
- To facilitate social change better, we need to start breaking down those assumptions.

How to minimize bias?

First and foremost, emphasize listening:

It is impossible to understand every social problem, but we can start to address societal issues by listening to the people affected without assumptions first.

Minimizing bias

Avoid jargon = Ask simple questions with simple wording

Avoid assumptions = Do not assume people know about your issue

Avoid leading = Do not use subjective claims

Define definitions = Explain terms if you must use them

#4 Keep it Short

Keep it short 4 you and 4 them

Keeping it short

A shorter survey = more space to share people's stories

Tie each question to who you are looking to empower

Open-ended questions = community members can take more time to respond if they want to

Main Takeaway of Survey Design

Be respectful.

Group Assignment #3

Draft up your surveys and revise memos

Still 2 pages MAX!!!!