Open Source and Web Mapping

Ethical Software and Developing for Civil Society

Lecture

Wrap-up

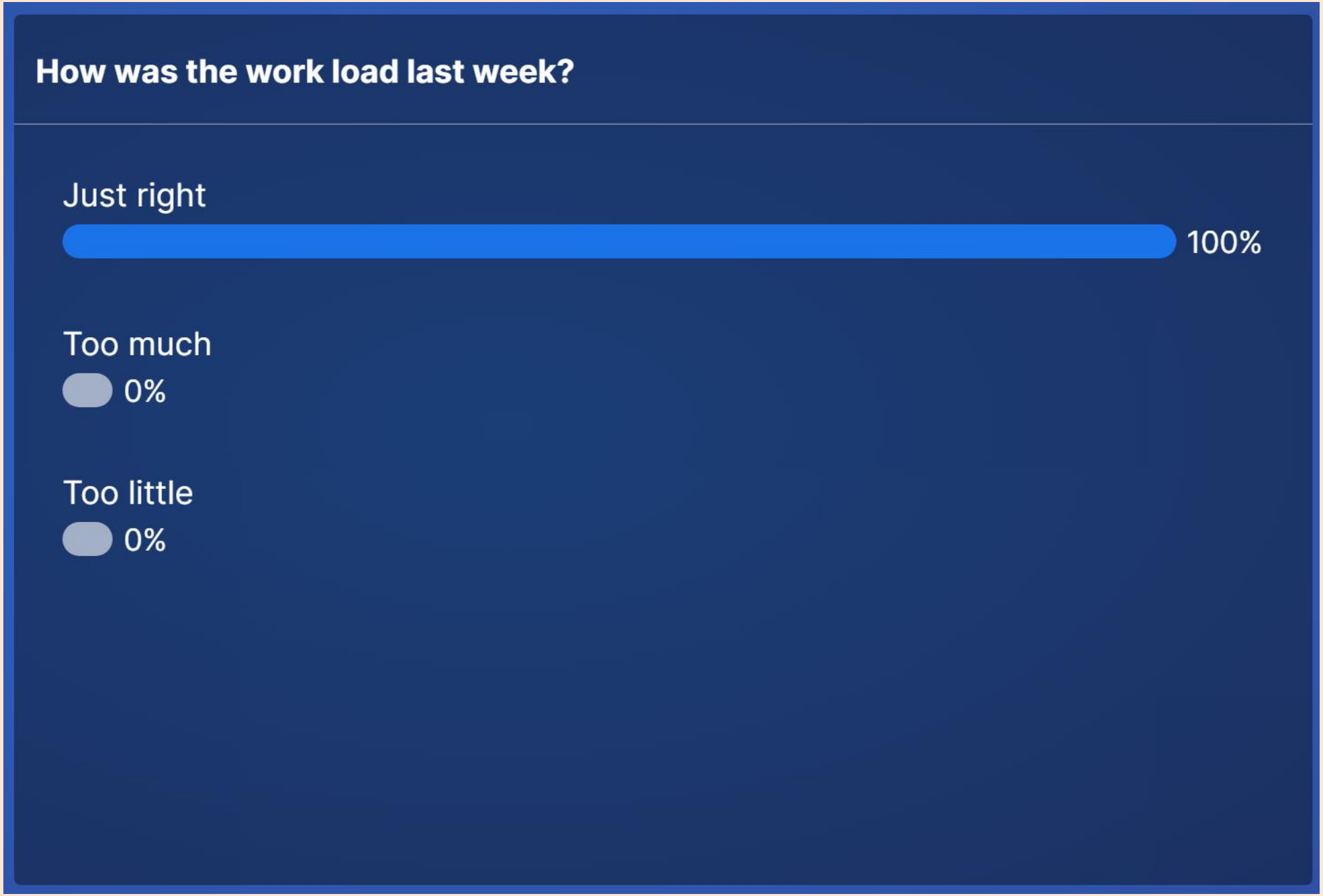
Group Time

Join at
slido.com
#ucla

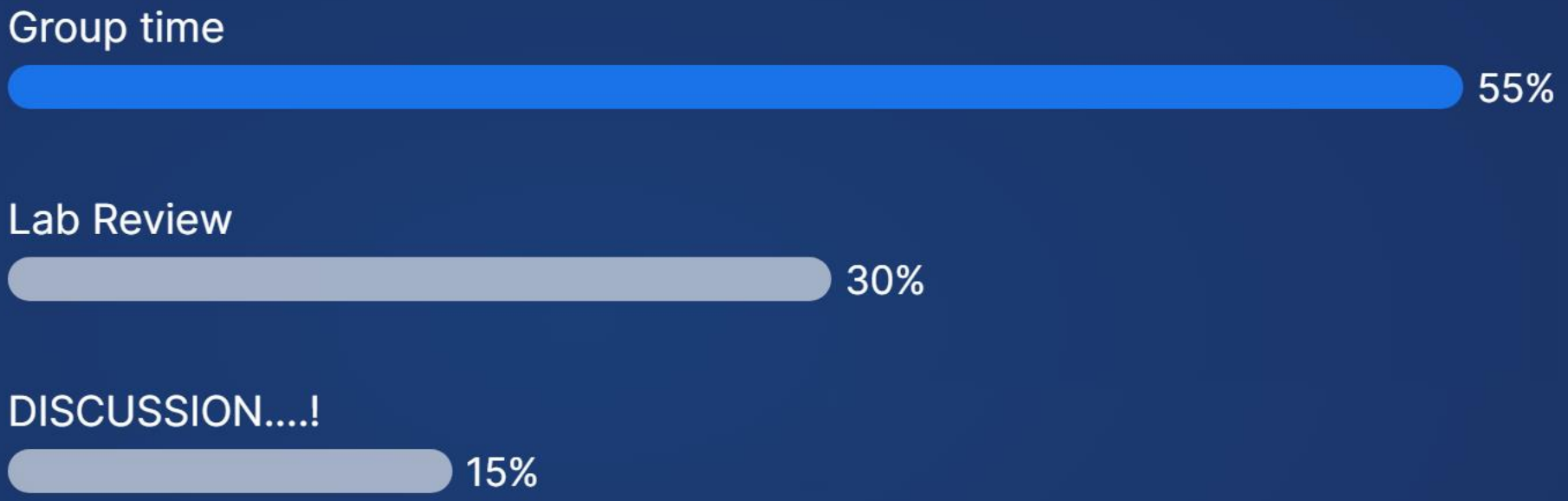
Albert Kochaphum
Lecture 3 | April 18th, 2023

Week 3! How are you feeling?

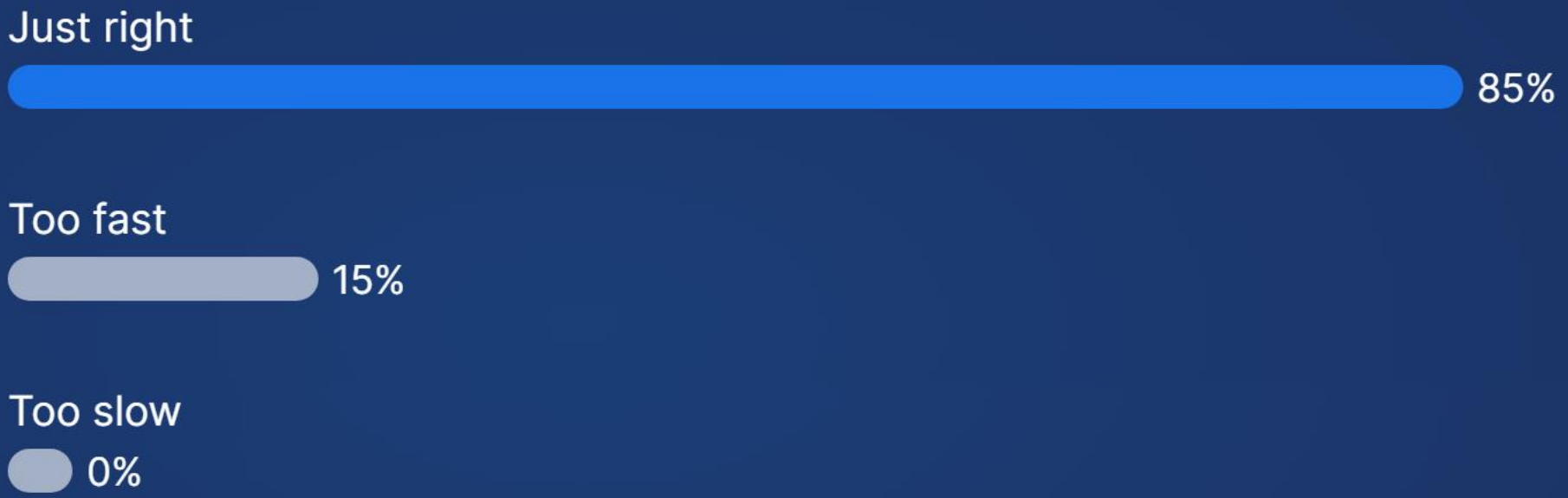
How would you rate the "Participatory Mapping" reading?
1 - Not meaningful 5 - Extremely meaningful
Score: ★ 3.9
0%
0%
35%
45%
20%
1
2
3
4
5


How was the work load last week?
Just right
100%
Too much
0%
Too little
0%

Instead of discussion today you would rather have:



How was pacing for last week's lab?



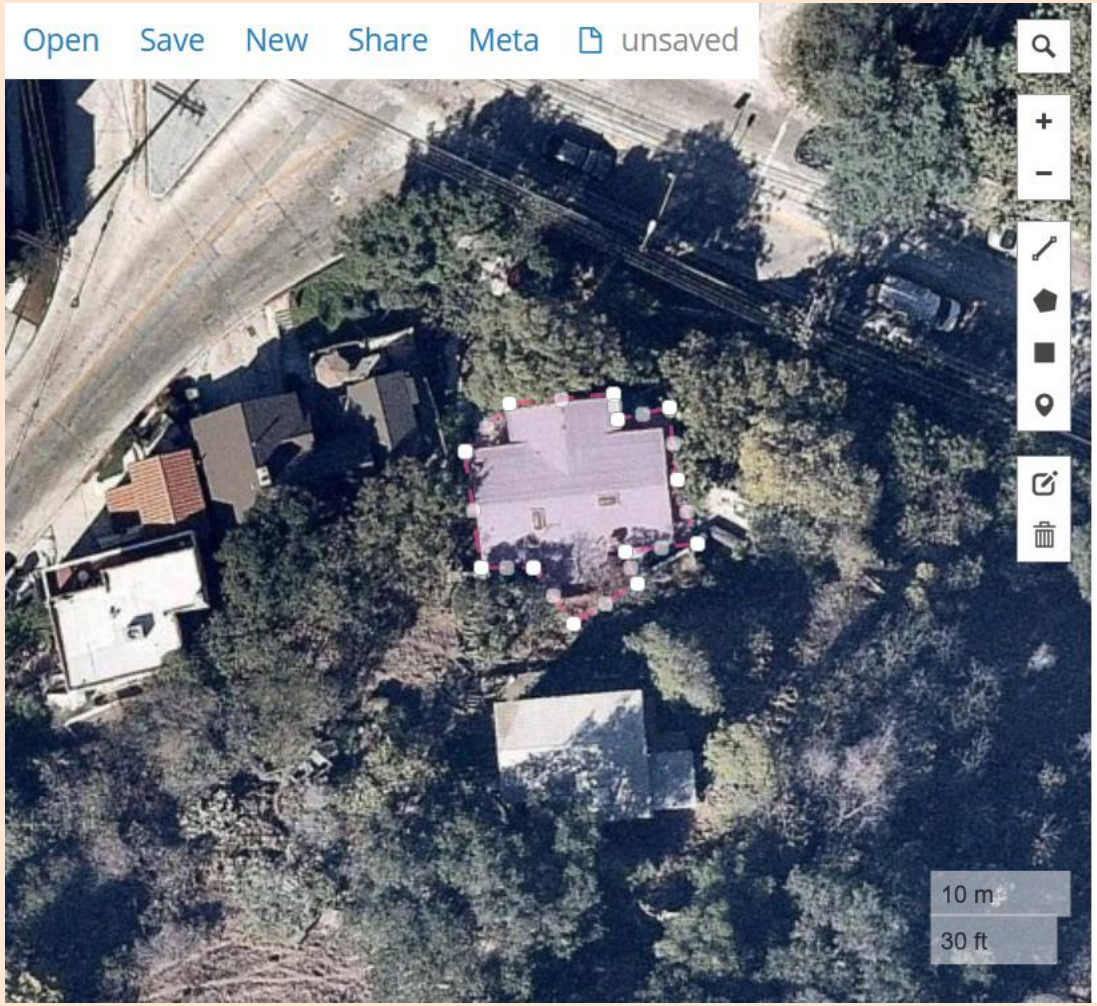
Theme of the week

How do you decide what technology is right?

Extra Credit Opportunities

Hands-on experience with Civil Society and mapping! With keynote speakers from Japan, Mexico, and Germany! Starts at 5pm today at Young Research Library!

https://mapathon.la/en/



JSON | Table | Help | anon | login

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  "features": [
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      "properties": {},
      "geometry": {
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        ]
      }
    },
    {
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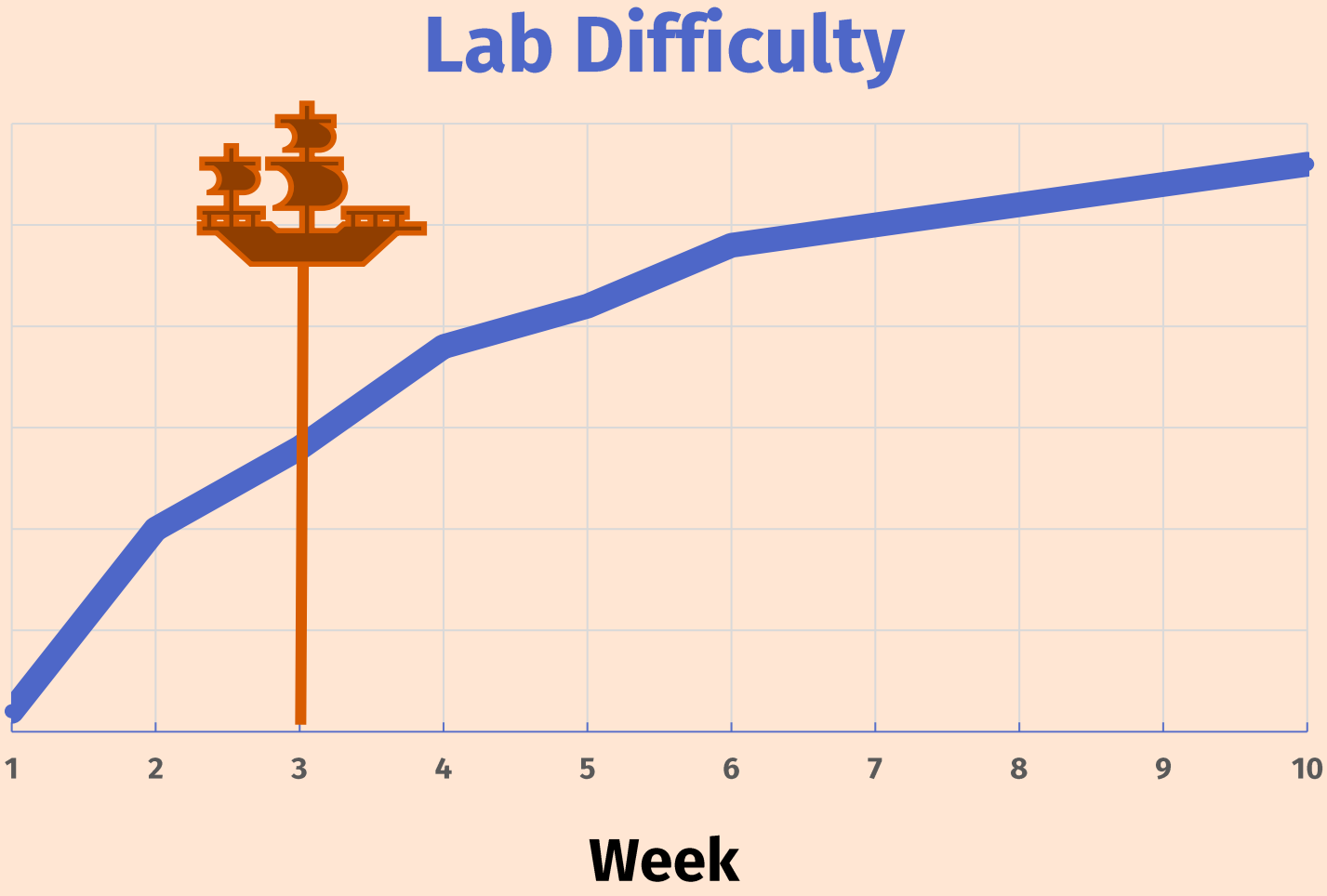
        "coordinates": [
```

Lab difficulty will start to plateau



Lecture

Alwards

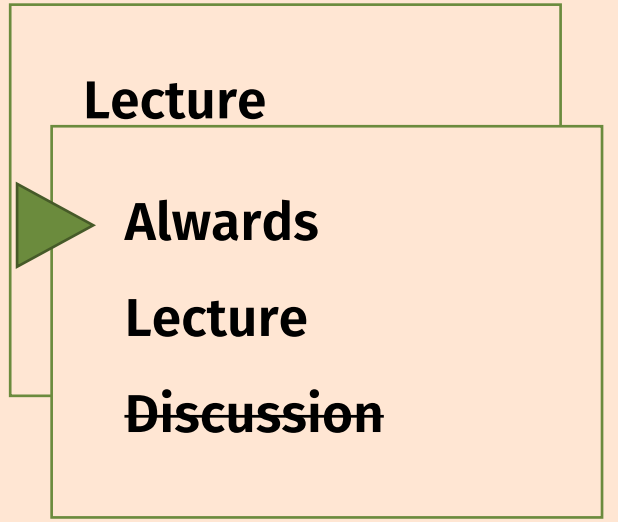
Lecture

Wrap up

Group Time

Lecture

Alwards



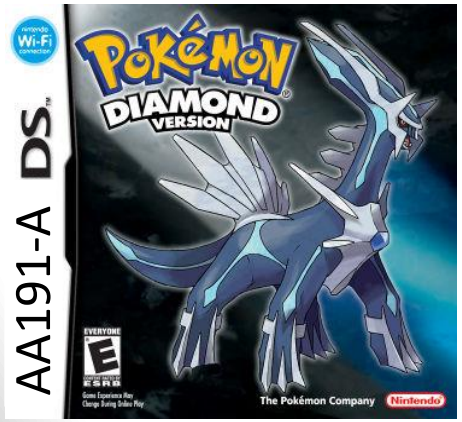
Pokéxtra Credit-mon Version:

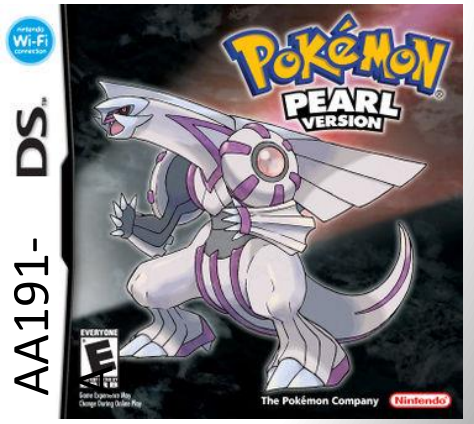
Very Com-DIAMOND-able Labs

and

Great Thinking Caps submitted

P-EARLY!





Giving some Turtwig-gle Room to Institutions

Jonathan Lopez

"With this conclusion, critical cartography can be improved from an initial standpoint by beginning to discuss ideas on what it means to decolonize methods of learning and sharing within critical cartography. This can be accomplished by inviting people to form the community, specifically those harmed by GIS and mapping in the past...In addition, sharing these findings and information through mediums that are acessible to people outside academics."

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5585465

Really Pachurisu-perb Replies!

Elsa Mai

"If institutions are going to play a role, I think that a way to help this is also for institutions to compensate community members for their collaborative work. I think it's important for institutions (and outside of institutions) for marginalized communities to be valued for their work."

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5641395

Vicky Delk

"I agree, collaboration as peers will lead to a diversity of perspectives and will ensure the locals are being represented in the process. I think that this type of collaboration will end up aiding both parties since there is information held and to be gained on both sides... I think this false superiority is extremely detrimental, and wonder how we might be able to eradicate it."

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5640915

Good thinking Cherrubi-yond the class!

Zach Patkin

“External organizations, as outsiders, can create maps to try and understand a community, but the community itself should benefit most strongly from insights brought forth by mapping. "Extracting information only for the outsiders’ benefit without this being clear to those who provide it. This is familiar and can apply to almost any professional.”

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5626019

Good examples to Luxray-ve About!

Kyle Tsujimoto

"Participatory maps seem like they could be a good tool for communities ... but perhaps reducing the influence of the outside facilitator Because participatory mapmaking methods, especially newer ones that rely on advanced technology, require training to use properly, communities could be trained how to make maps but not told what to make maps on for individual projects."

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5639357

Mohammed Azad

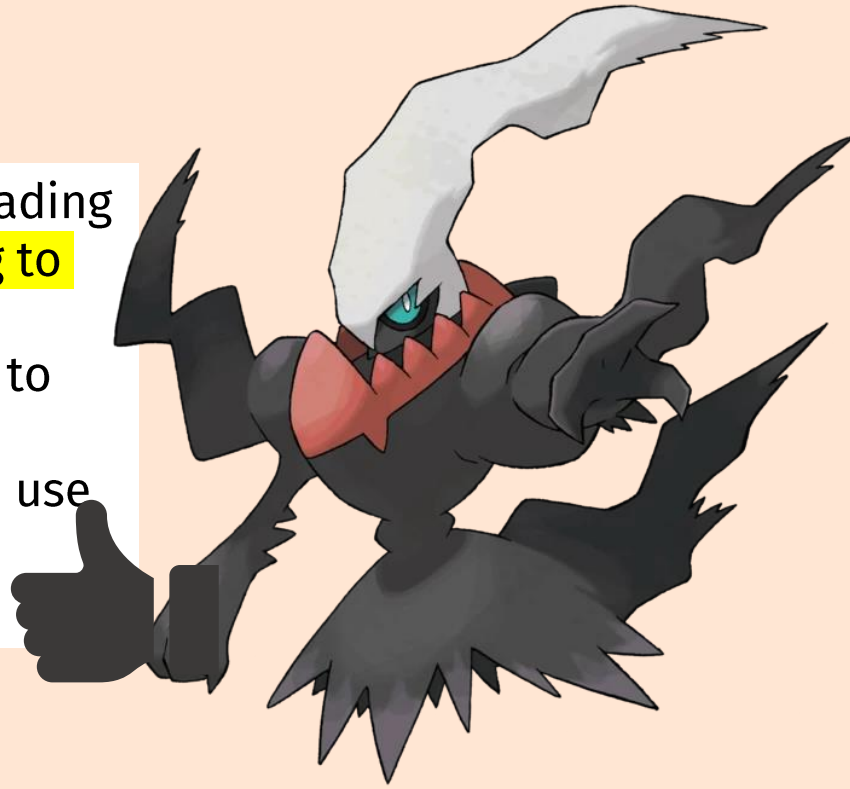
"When communities are involved in the process, they can and should have direct say on how they want to be presented...In a hypothetical example, if I was interviewed about my routes to a grocery store, I would say the one I frequently take without thinking too deeply about it. On the other hand, if I was given a map and told to draw it out, it would open up more routes since I am actively reliving the routes I would take.

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5641366

A Darkrai-ght approach in connecting to the reading!

James Falkenroth

“A recurring theme I noticed in this week's reading was giving ownership and control of mapping to the community members making the maps. I believe that this should be the primary focus to improve participatory mapping and critical cartography...The community must be able to use or benefit from the final product. Another important theme is safety. “



https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5641762

Legendary Thinking Palika-p of the Week

Sage Luong

“Thus, it is critical for researchers to remember who they are collaborating with and to treat these populations as humans rather than case studies or data. I was made aware of the UCLA project Mapping Indigenous LA from a previous Digital Humanities class where the lead faculty researchers worked closely with various indigenous populations such as tribal leaders, activists, and academics.”

https://github.com/albertkun/23S-ASIAAM-191A/discussions/5#discussioncomment-5626188

Nice Piplup-loaded Images!

Stella Kang

Hello! My name is Stella Kang.

About me

Hello everyone! My name is Stella and I'm from Orange County. I am a junior studying Applied Linguistics and Digital Humanities. I work at the Arts Library and tutor kids (essay writing and creative writing)/ESL students. My current hobbies include exploring Westwood with friends, playing video games, and listening to music. Some places in Westwood that I visited over spring break were Mashti Malone's, Lazy Daisy, and Egg Tuck.

I'd love to chat about these topics:

1. UX/UI - User Experience (UX) and User Interface (UI) are crucial components of any digital product. As someone who's interested in Digital Humanities, I find UX/UI to be fascinating topics. UX/UI designers aim to create intuitive, user-friendly designs that improve user engagement and satisfaction. If you want to discuss some examples of great UX/UI design, I'd be happy to chat with you about it!
2. Movies, TV shows, anime, kdramas or Youtube videos! I'm a big fan of all of these genres, so it's hard to choose just a few! For movies, I'd highly recommend "Parasite," "The Social Dilemma," and "Coding Bias." When it comes to TV shows, some of my favorites include "FRIENDS," "Abbott Elementary," and "The Office." For anime, I highly recommend "Fullmetal Alchemist: Brotherhood," "Bungou Stray Dogs," and "Attack on Titan." As for K-dramas, "Sky Castle," "Itaewon Class," and "Reply 1988" are some of my favorites. Finally when it comes to Youtube, I'm a big fan of TED Talks, Vox videos, and vlogs.
3. Places to eat in Westwood and LA - this city is filled with amazing restaurants and I haven't had the pleasure of trying many of them yet, but if you have some places to recommend, please feel free to tell me! Some of my personal favorites include Egg Tuck, Artelice Patisserie, and Daikokuya Ramen. Each of these places offers unique, delicious food that you won't find anywhere else!

profile

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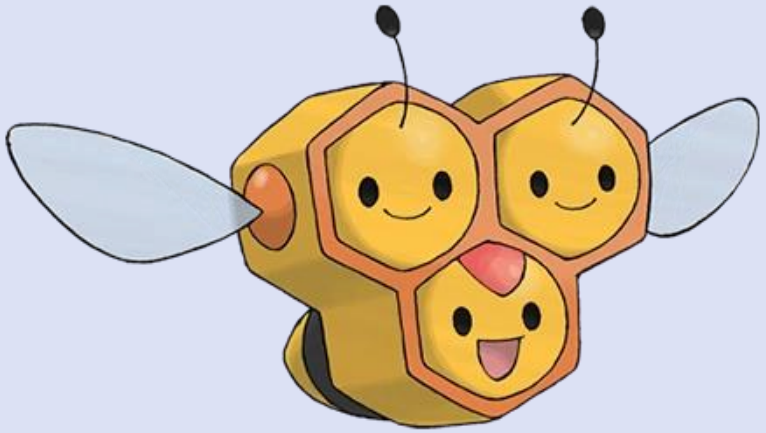
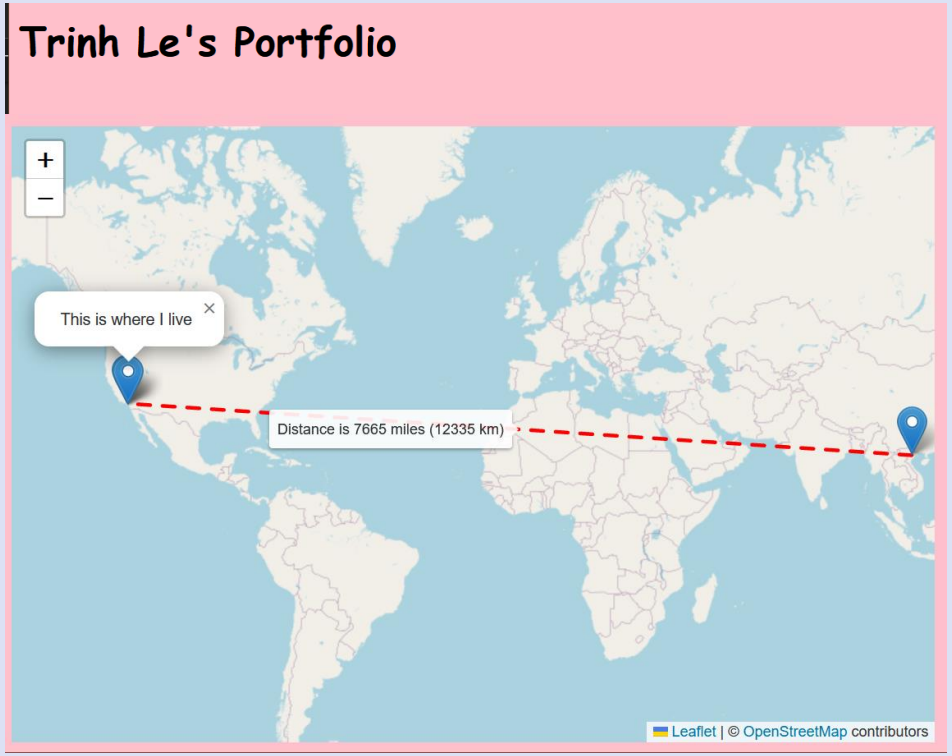
https://stellakangj.github.io/aa191a/week1/

Fancy Measurement Combee-tween Points

Trinh Le





https://trinhqale.github.io/AM191A-labs/week1/index.html

TogeKISS that default font, Goodbye!

Daniel Cruz

Simple Map

Daniel Cruz

About me

Hi, I am a fourth year math of computation major from Long Beach, California.

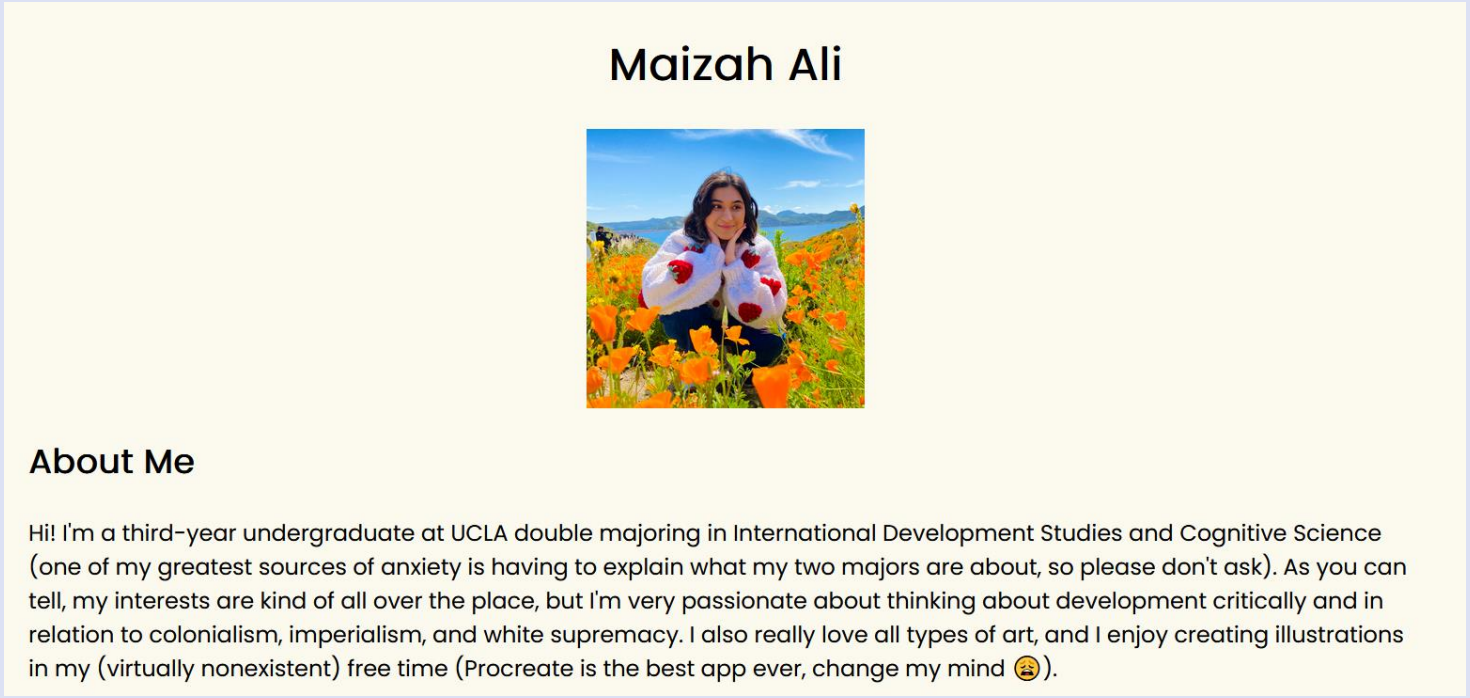
Some of my interests include

- Cats. One of my favorite cats is Larry
- Video games
- History
- Linux
- Being outside

https://dcruz74.github.io/23s-asiaam-191a-labs/week1/index.html

Nice Starly-esque Website!

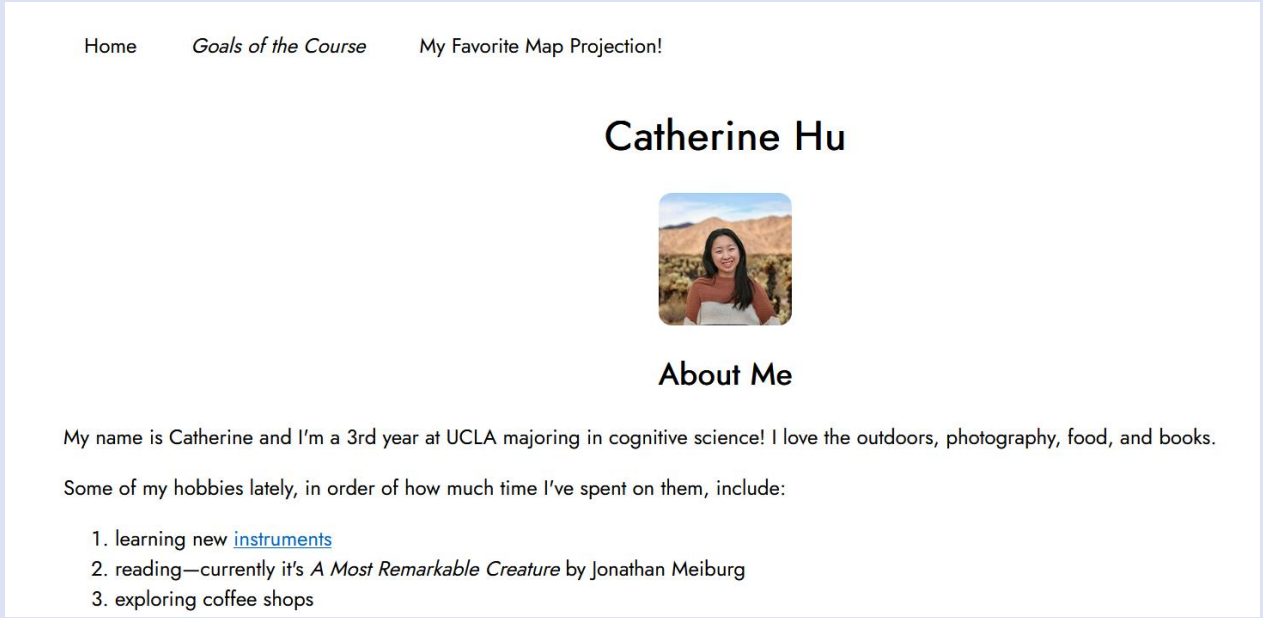
Maizah Ali



https://maizaha.github.io/23s-asiaam-191a-labs/week1/index.html

Great Shaymin-malist Multi-page layout!

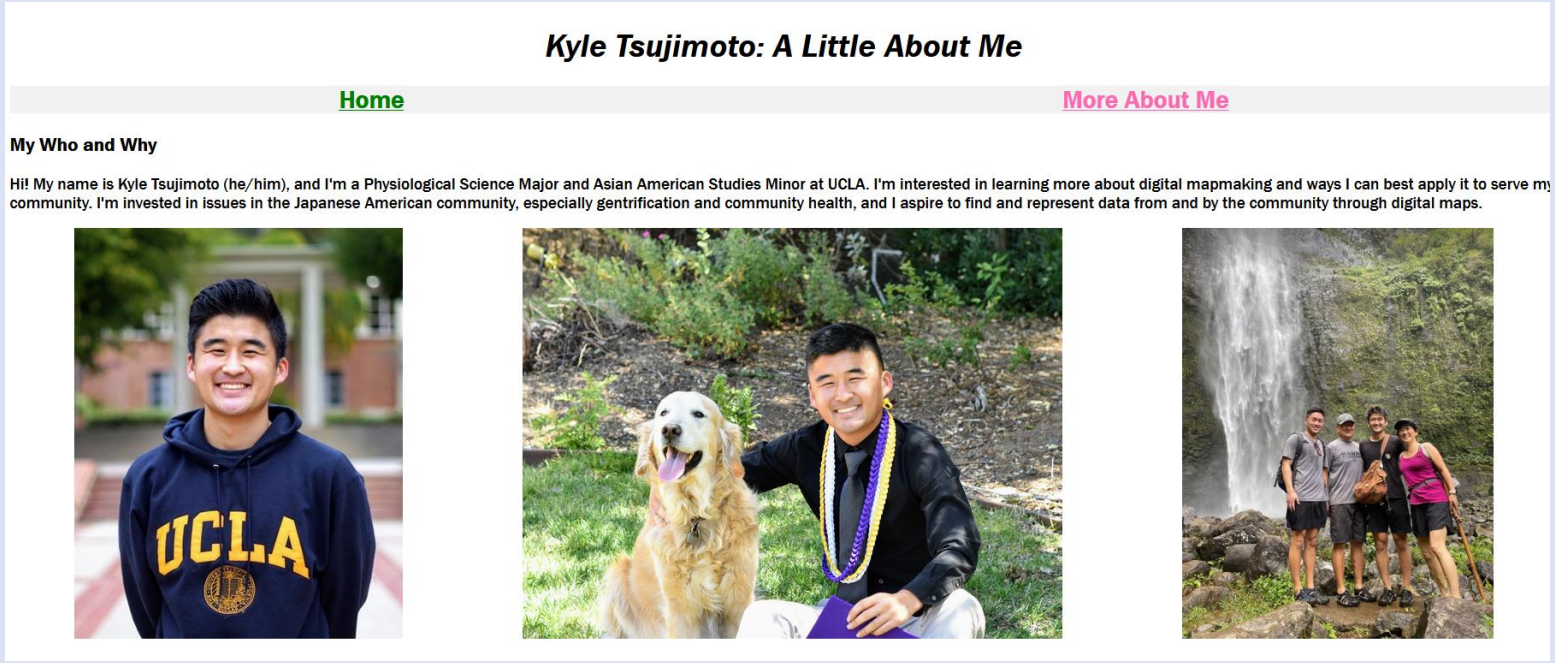
Catherine Hu



https://catherinehhu.github.io/191a-labs/week1/index.html

Legendary Dialaga-reat Portfolio!

Kyle Tsujimoto



https://kmtsujimoto.github.io/23s-asiaam-191a-labs/week01/index.html

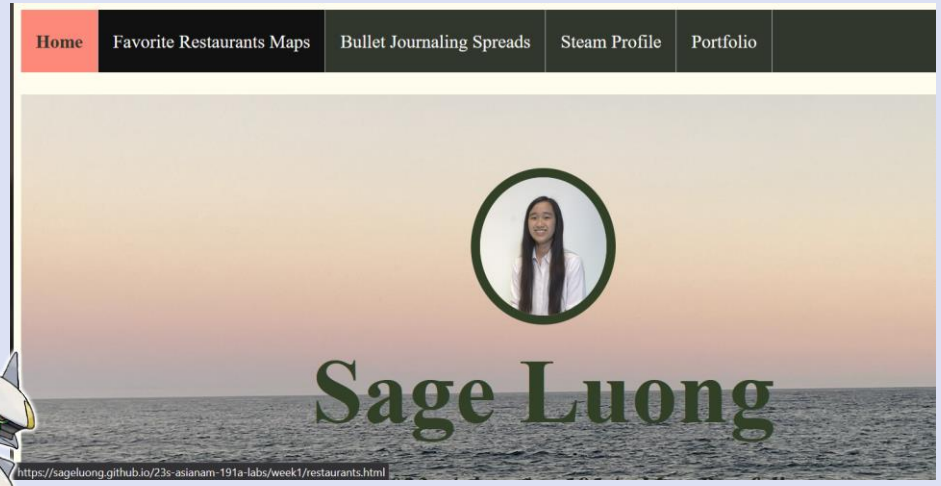
Giratin-aMazing Design!

Dylan Wan

https://dylanjwan.github.io/asiaam-191a-assignments/week1/

Arceus-tra Credit Labs of the week

Sage Luong



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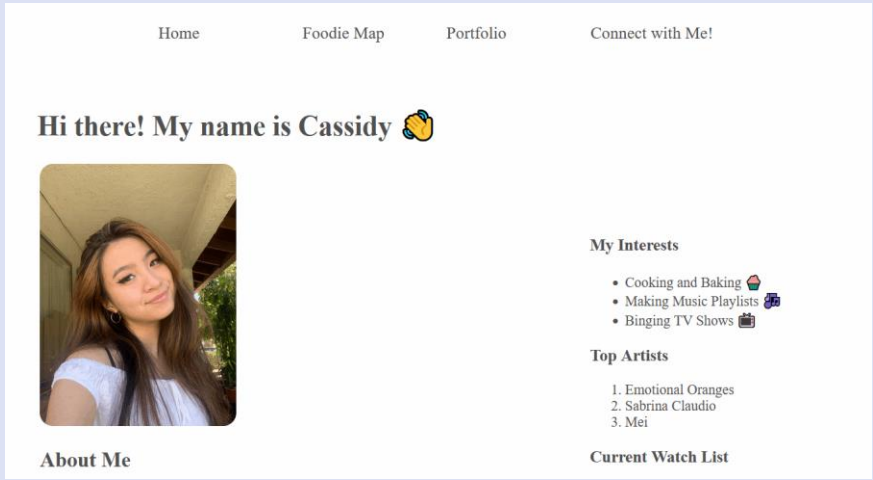
Cassidy Tu



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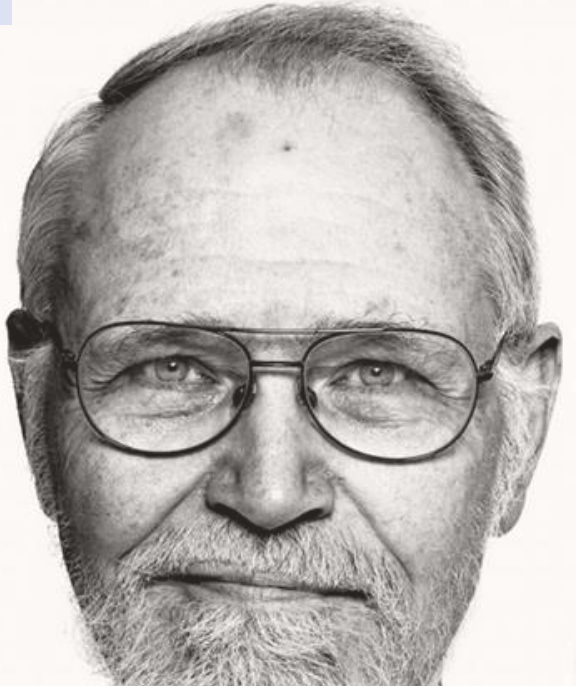
Lecture

Ethical Software and Developing for Civil Society

Lecture

- **Alwards**
- **Lecture**
- ~~**Discussion**~~

Open Source



https://www.facesofopensource.com/

The Three Opens

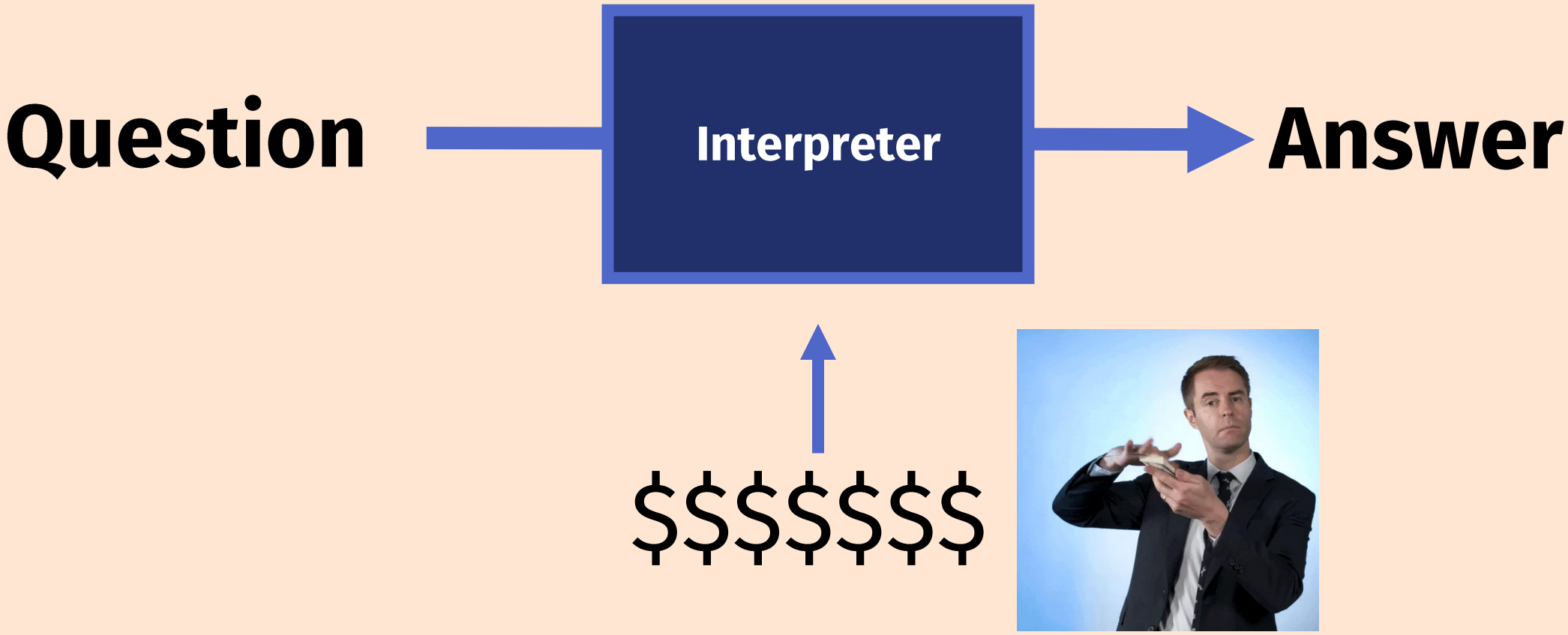
- Open Source
- Open Standards
- Open Data

Leads to.....

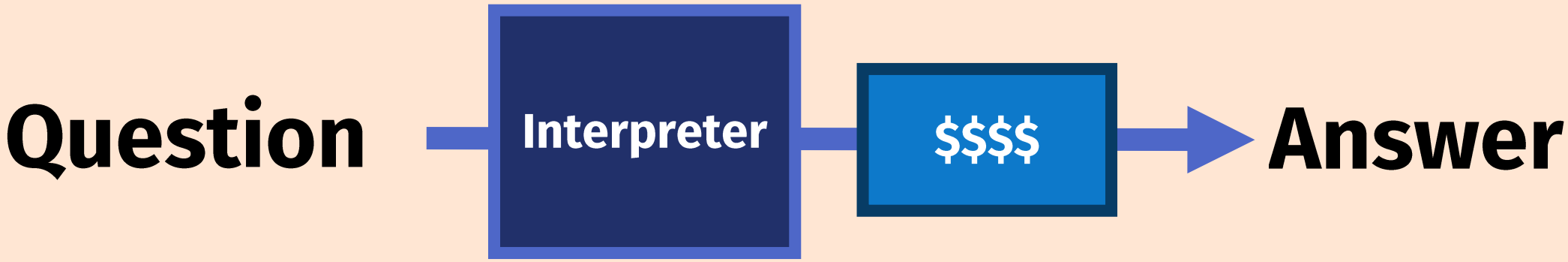
A collaborative open-community

Is this enough?

What is programming?



What is programming?



Importance of an open internet.....

Input

Interpreter

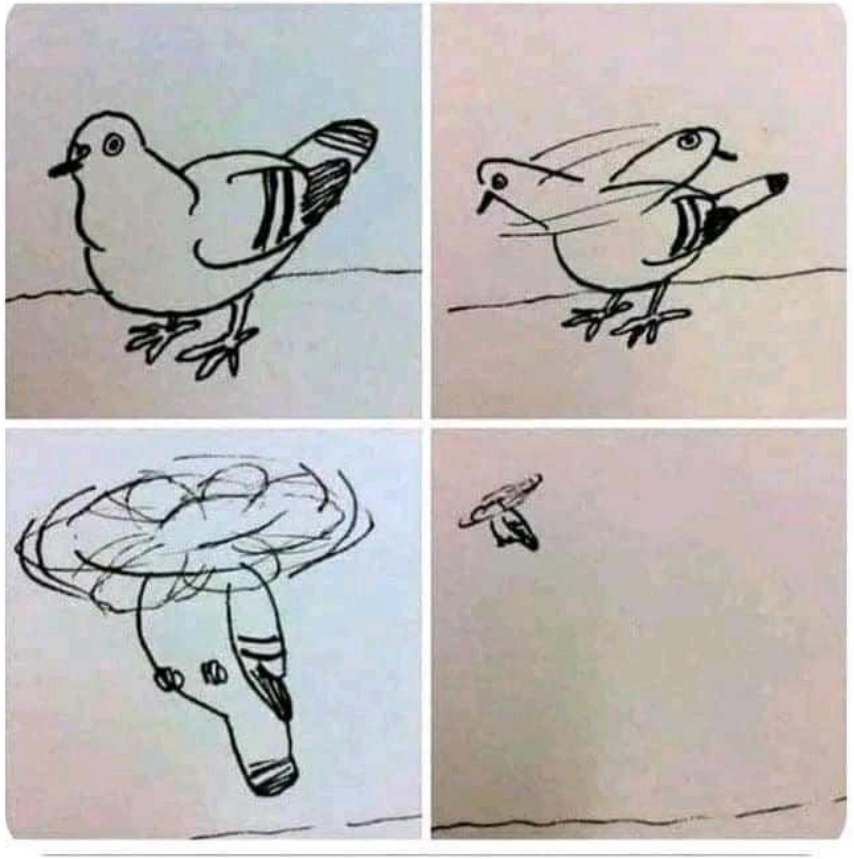
$$$$

Output

A programmer vs. non-programmer

When we see code, we don’t give up!

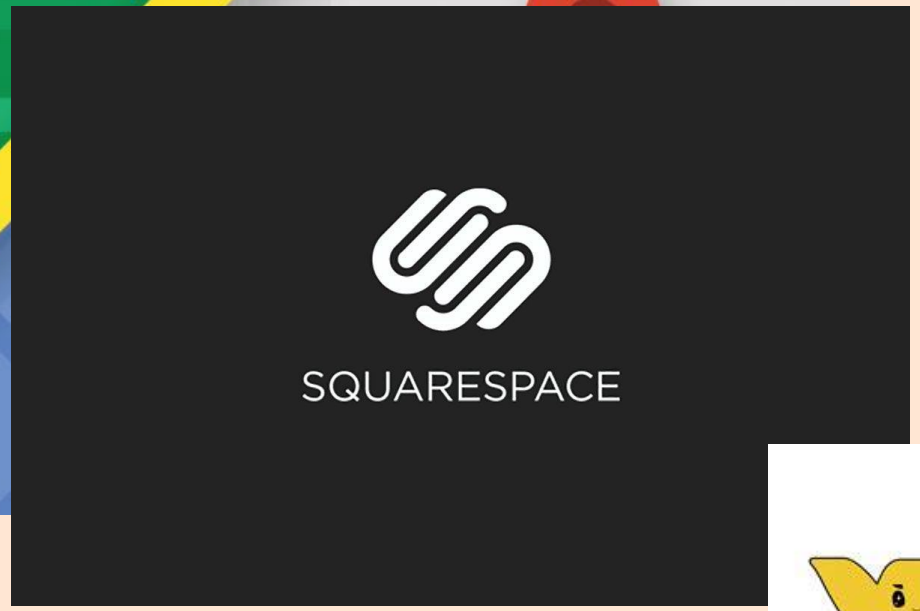
When your program
is a complete mess,
but it does its job



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 Leaflet instead of.....



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

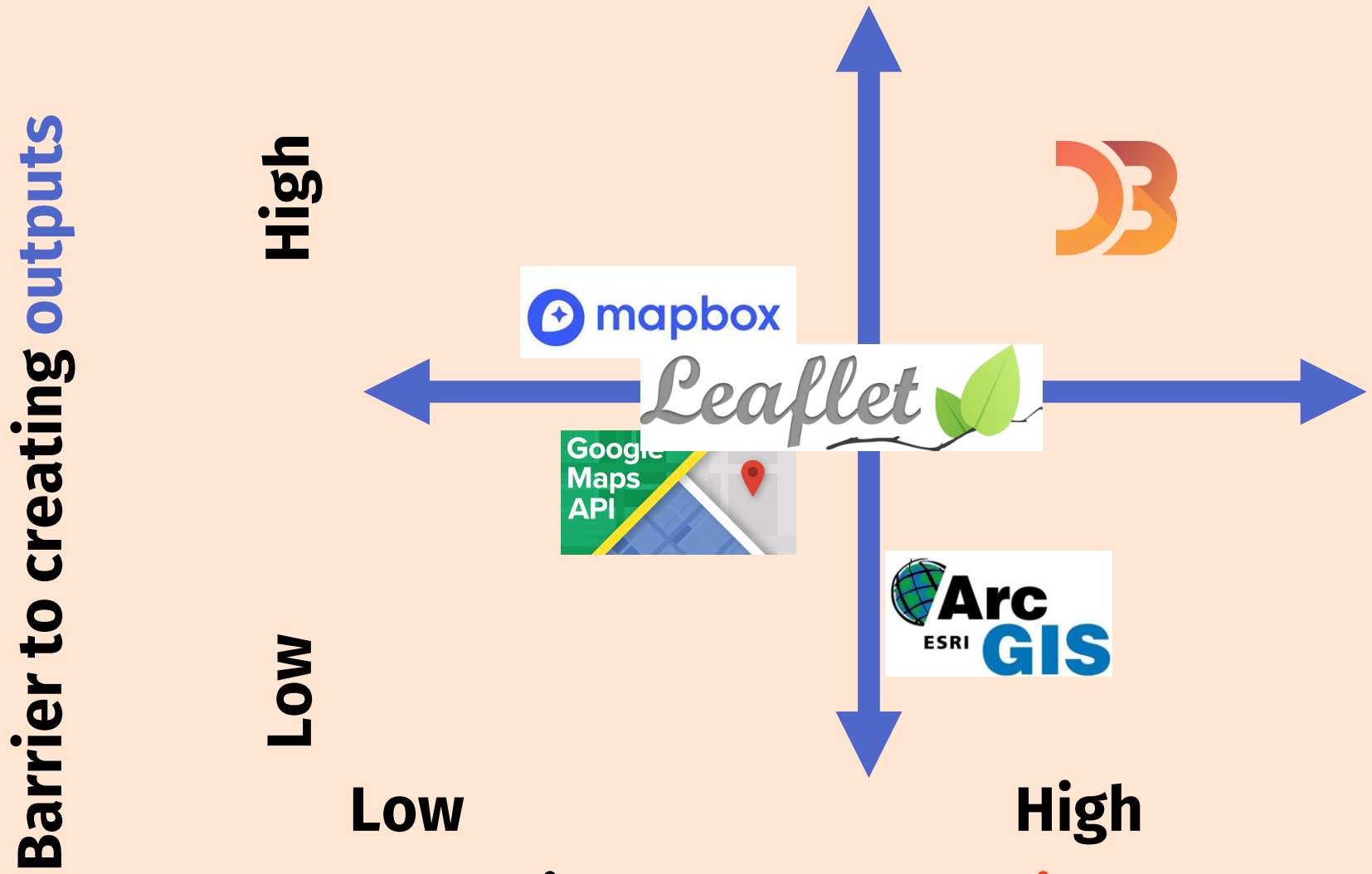
For convenience, you ignore

- Ingredients
- Healthiness
- Dependency on the tool

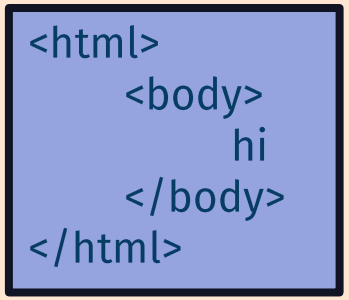
But most importantly...

- Why are cooking in the first place!!

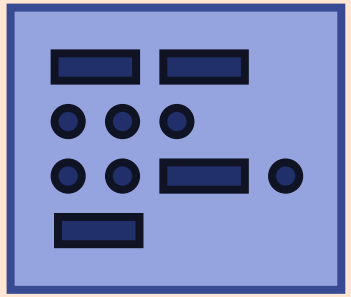
GIS Technologies



Open-source vs Closed-Source



VS

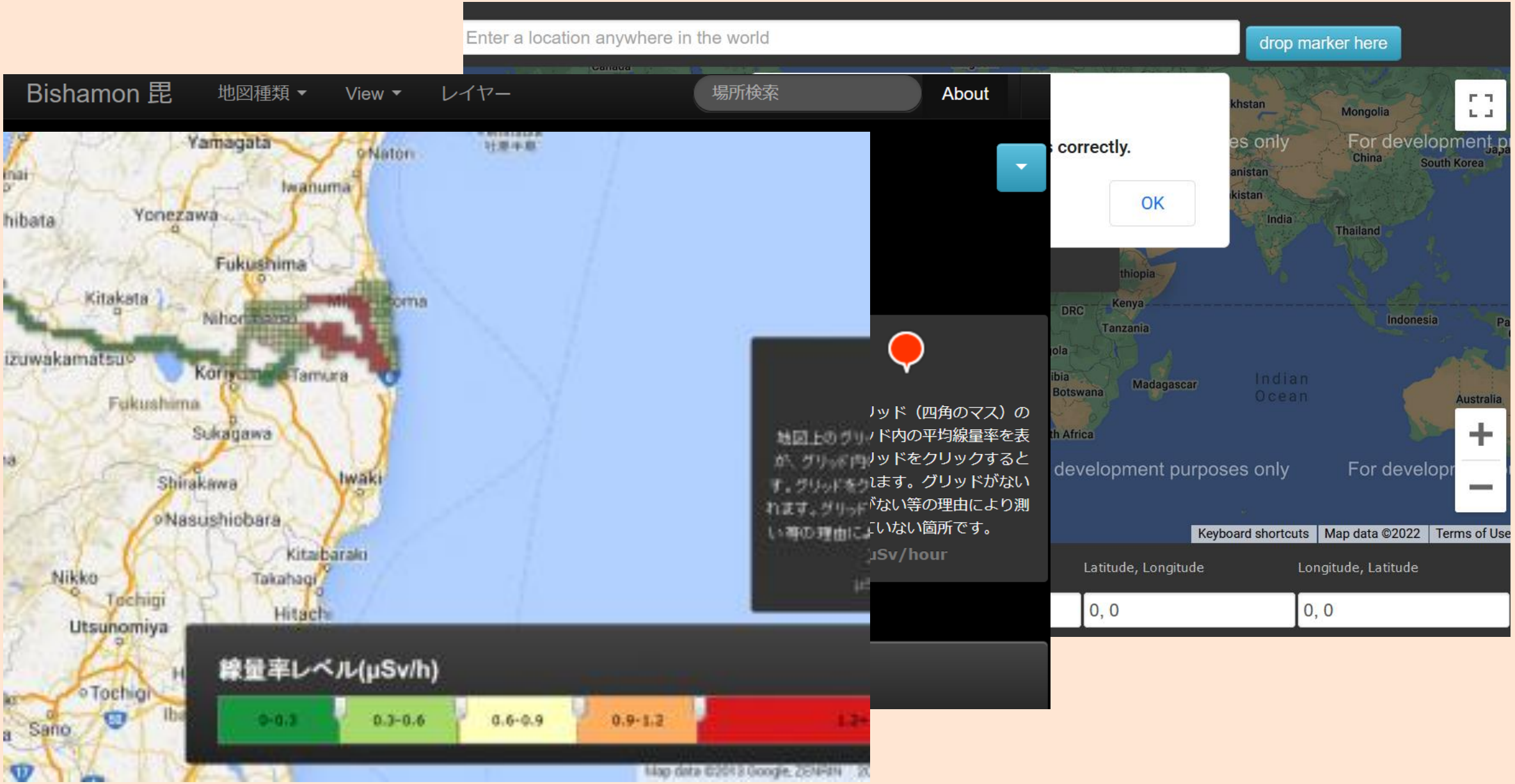


You can see the code

You can never see the code

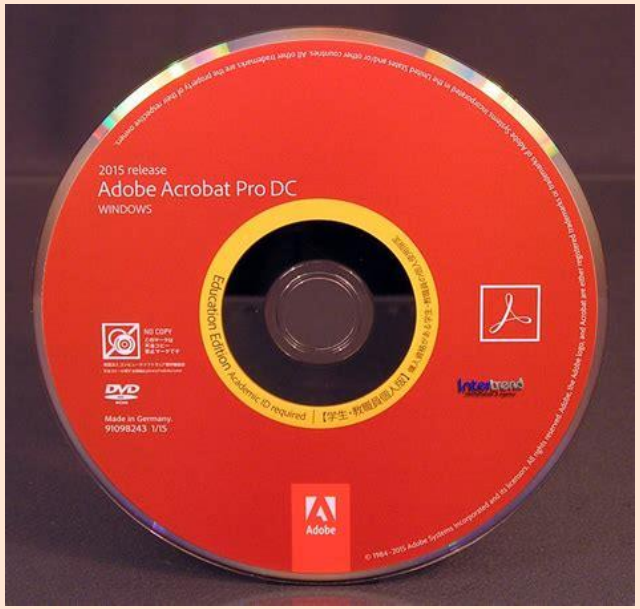
Think about why is this important?

Google API Depreciation



Quick History on software.....

Quick History on software.....



Bruce Momjian	Joe Conway	Alvaro Herrera
Thomas Munro	Tom Lane	Andrew Dunstan
Robert Haas	Stephen Frost	Peter Eisentraut
Amit Kapila	Peter Geoghegan	Tomas Vondra
Andres Freund	Teodor Sigaev	Heikki Linnakangas
Kevin Grittner	Alexander Korotkov	Greg Stark
Michael Paquier	Jeff Davis	Magnus Hagander
Fujii Masao	Michael Meskes	Tatsuo Ishii
Etsuro Fujita	Noah Misch	Dean Rasheed

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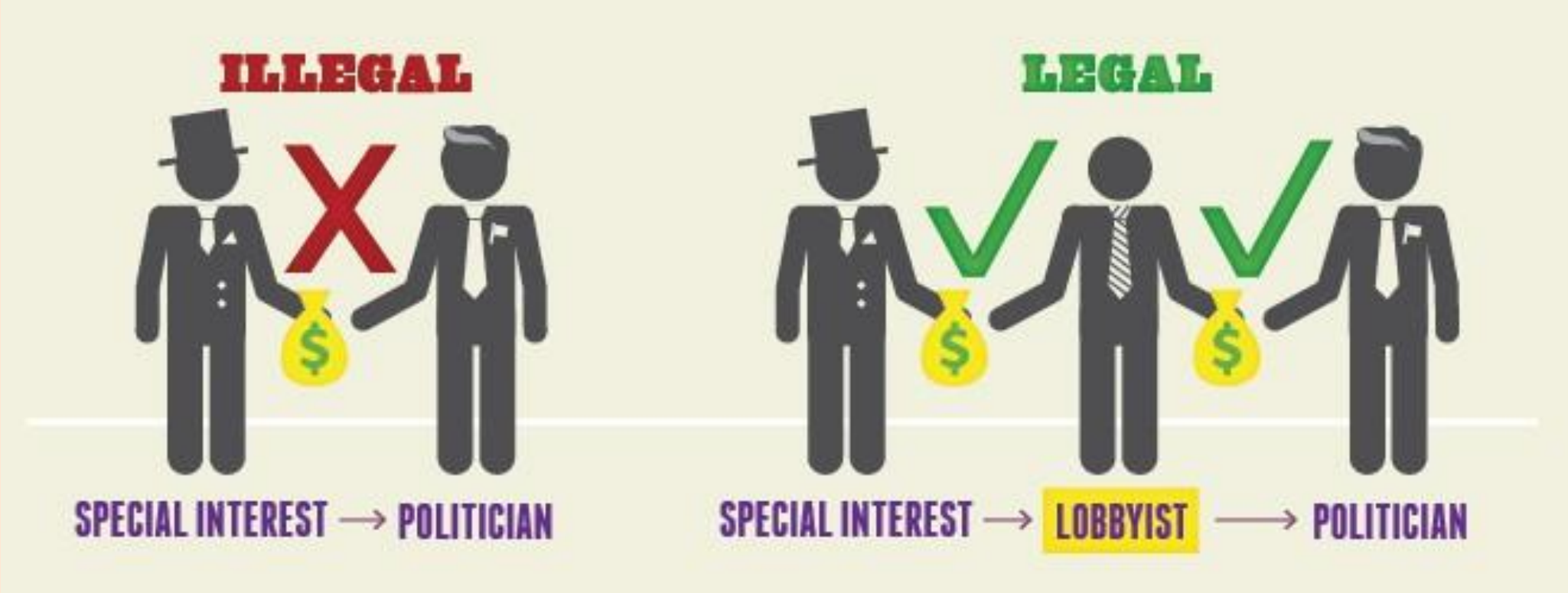
Etsuro Fujita	Noah Misch	Dean Rasheed

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?



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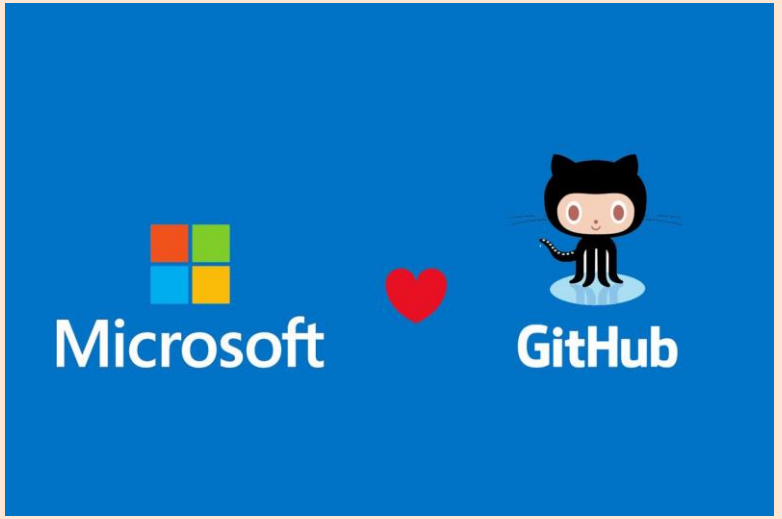
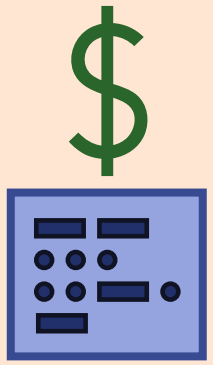


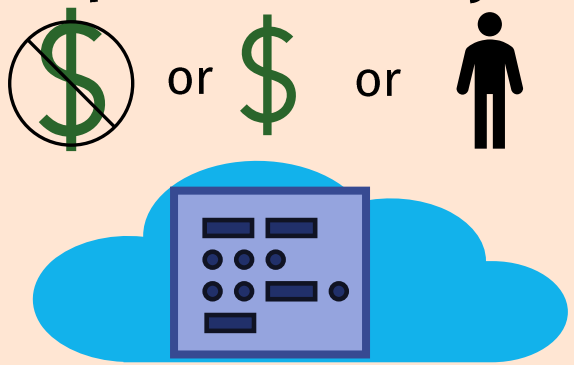
A summary of Open vs. Close source

Proprietary Software

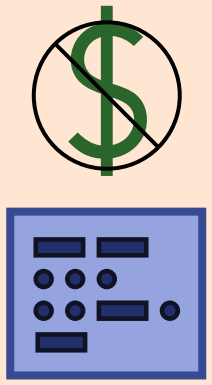


Software as a Service

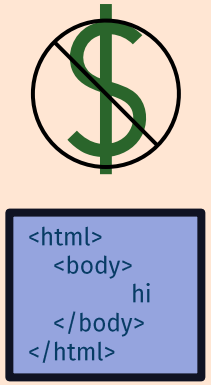
To a point or Takes your data or



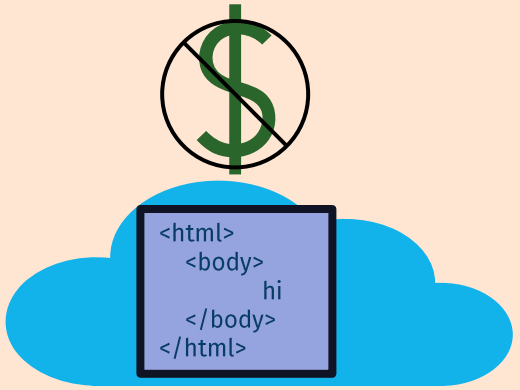
Free software



Open Source Software



Open Software as a Service



Open Source

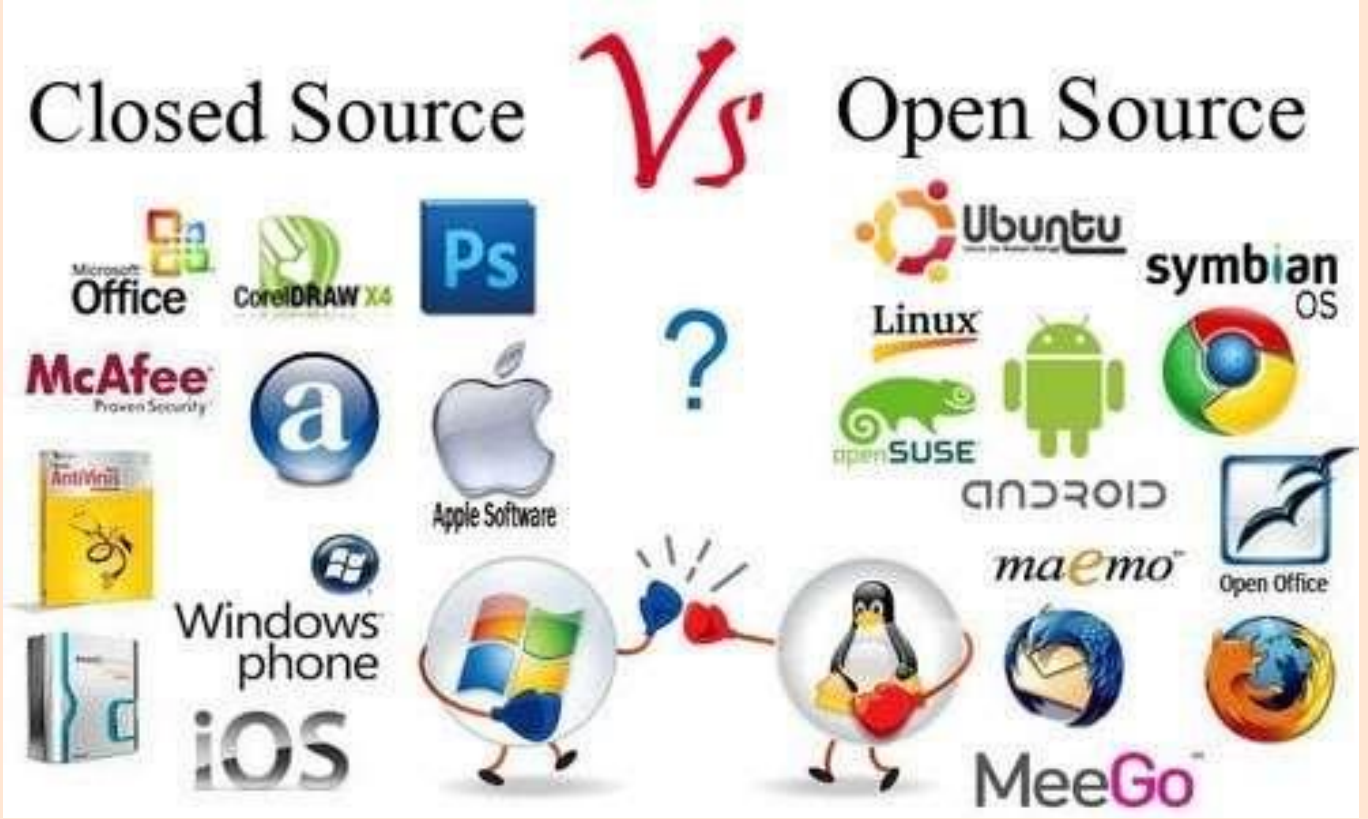
No costs and long-term application viability

Vs.

Closed Source

Short-term costs and variable application viability

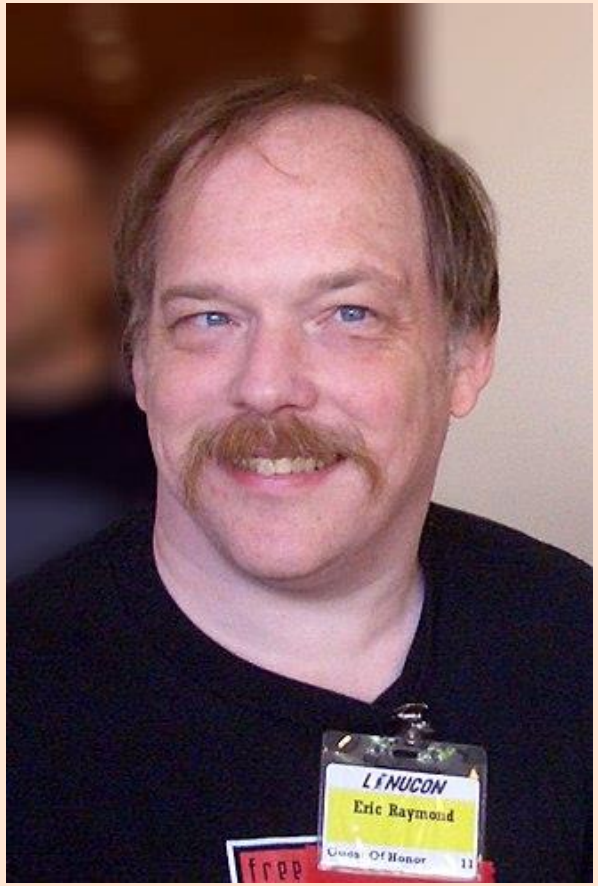
Cost vs benefits of open source



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

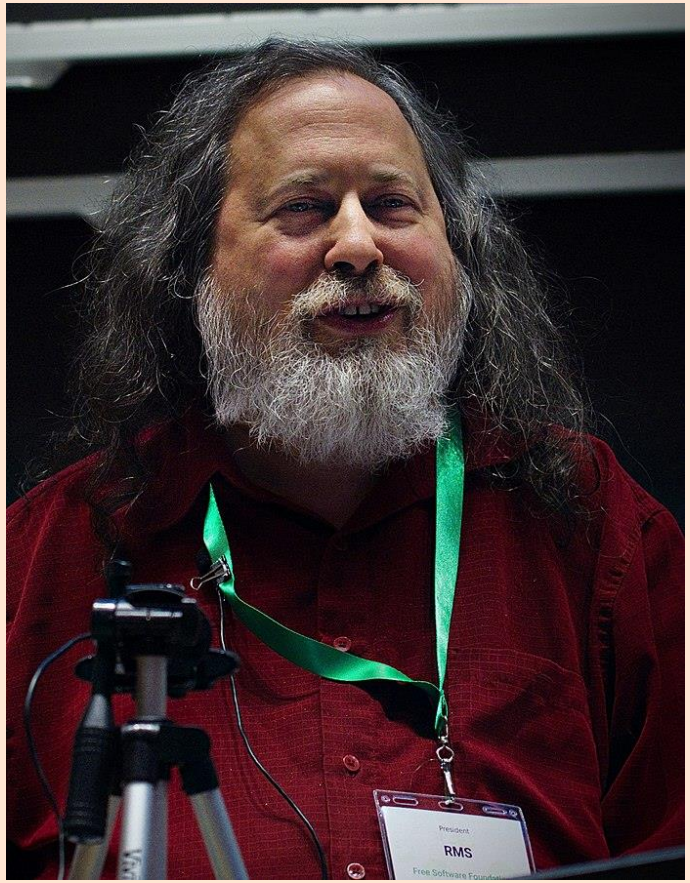
Issues with open source...

Eric S. Raymond



Founder of Open Source Initiative

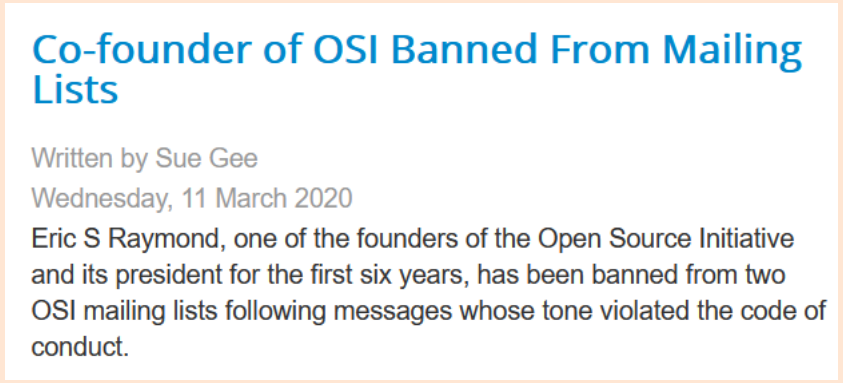
Richard Stallman



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/136-open-source/13535-co-founder-of-osi-banned-from-.html

Richard Stallman

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

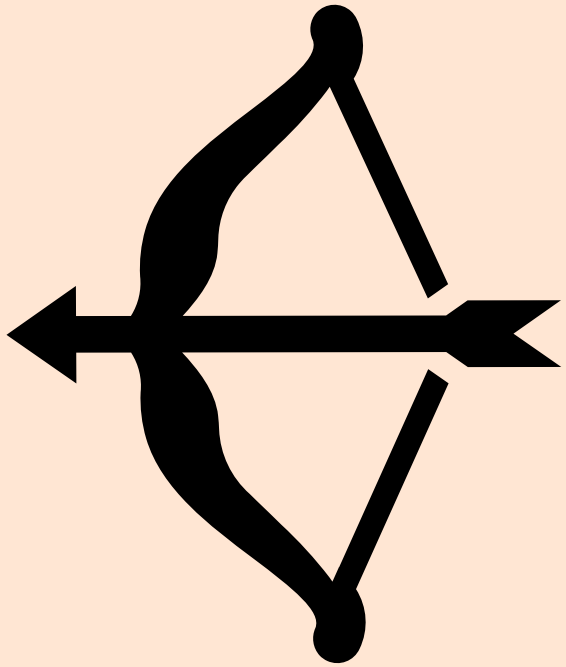
Steven J. Vaughan-Nichols · 3/24/2021

https://www.msn.com/en-us/news/technology/return-of-stallman-to-fsf-sparks-outrage-among-open-source-and-free-software-leaders/ar-BB1eVPC8

http://lists.opensource.org/pipermail/license-discuss_lists.opensource.org/2020-February/021328.html

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?

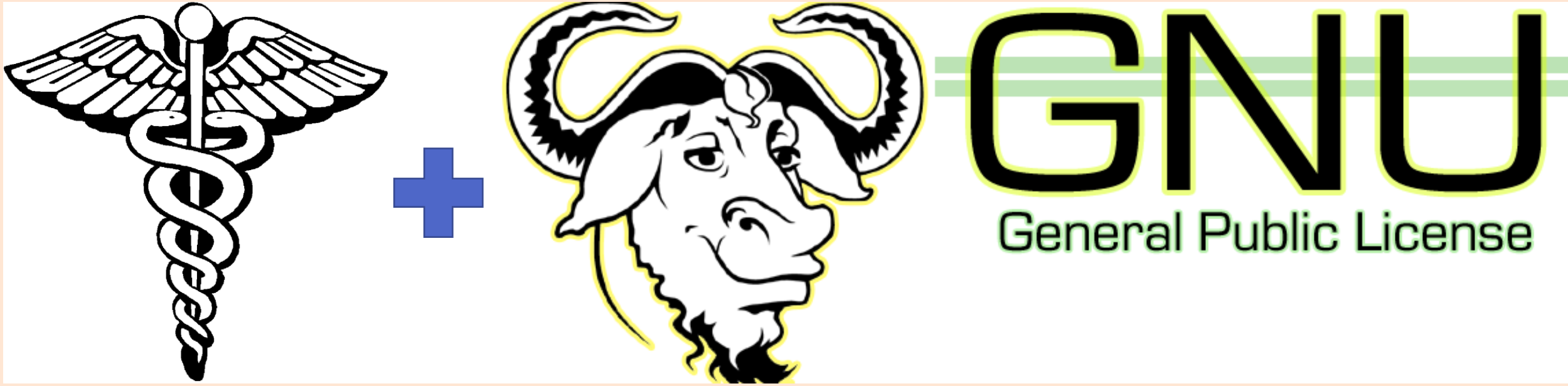
Hint: It’s related to ethics!

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.

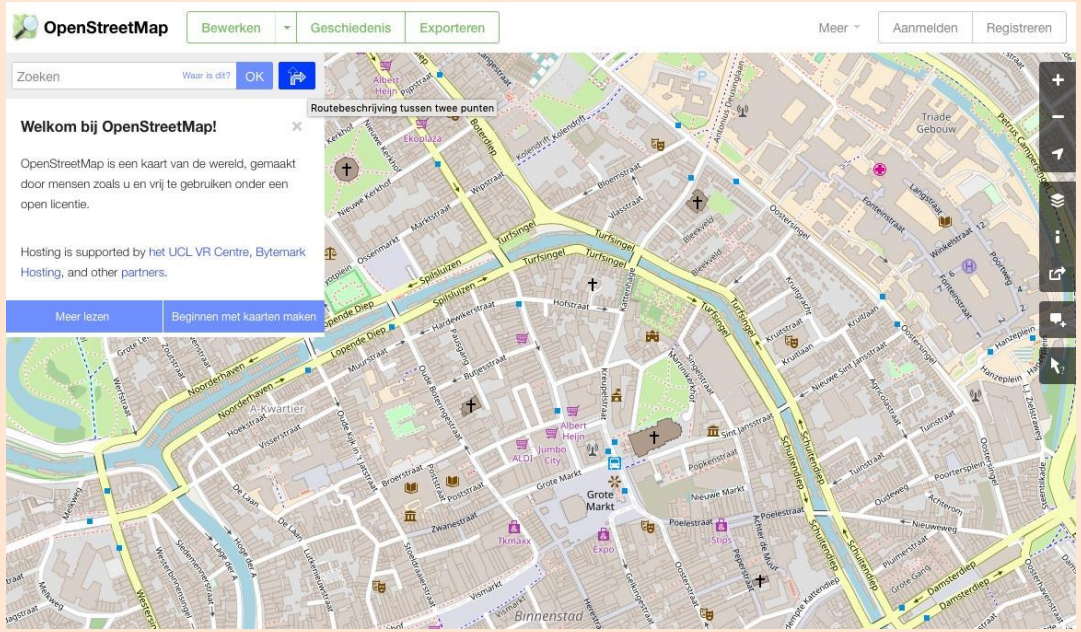
Mapping this back to maps and coding

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

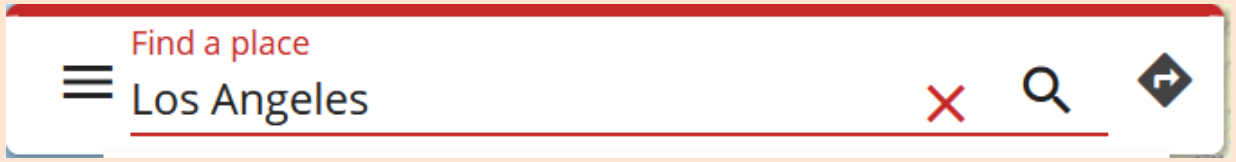
Google Maps

Open Street Map



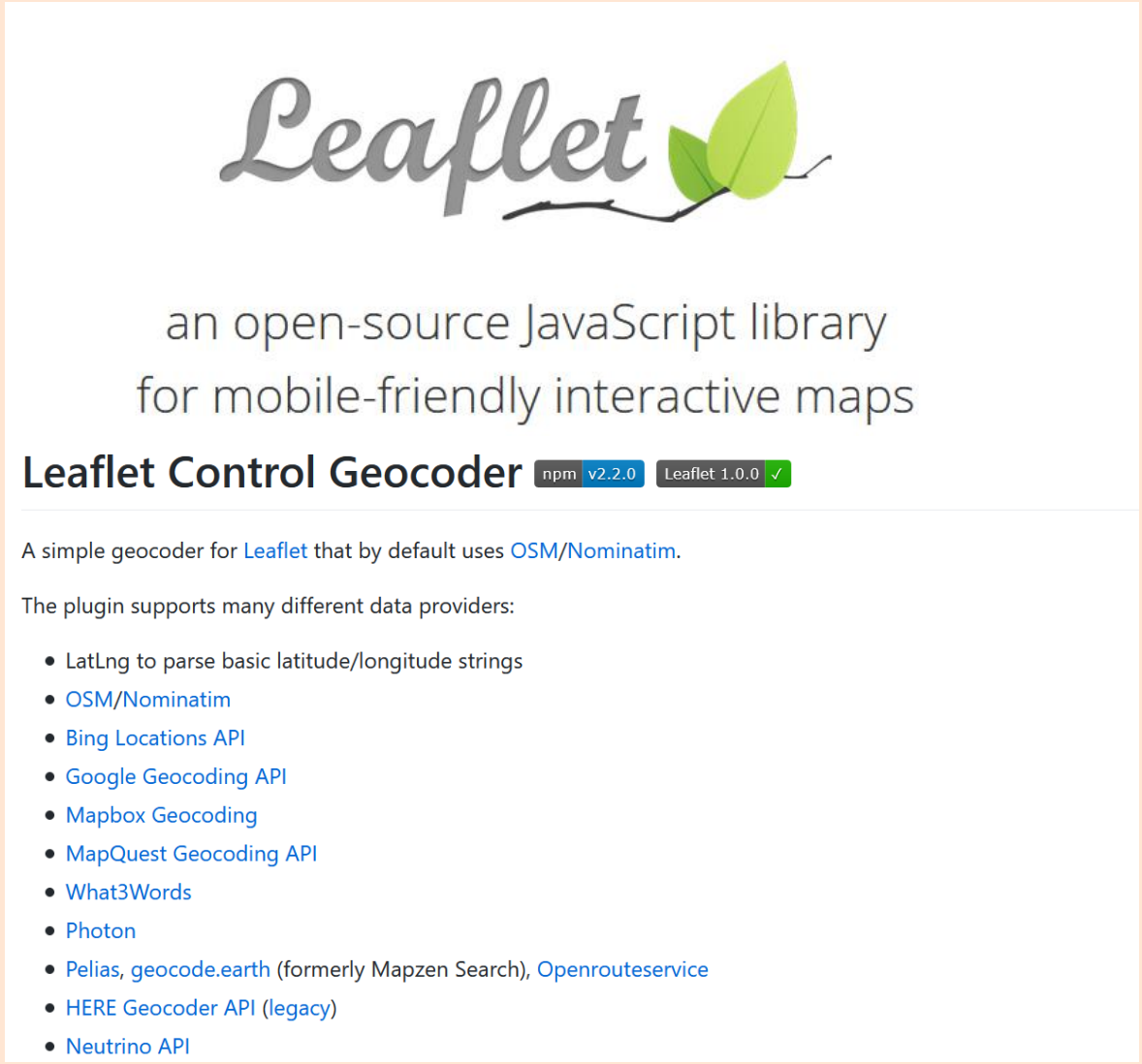
Would you contribute data willingly to Google Maps?
What are you giving up/gaining between using Google Maps vs. Open Street Map?

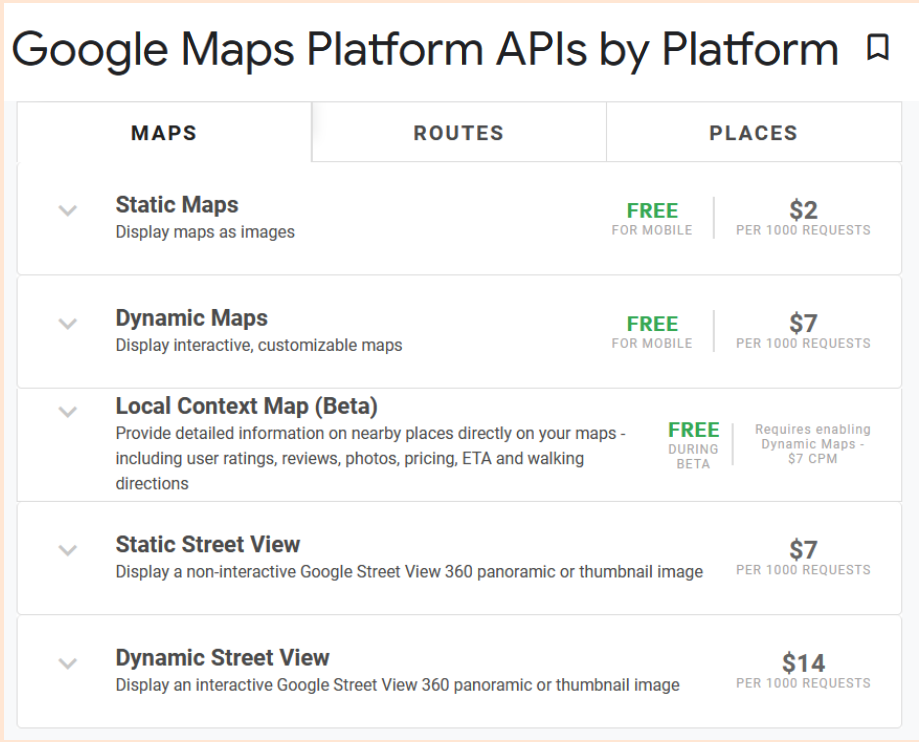
Example: Geocoding

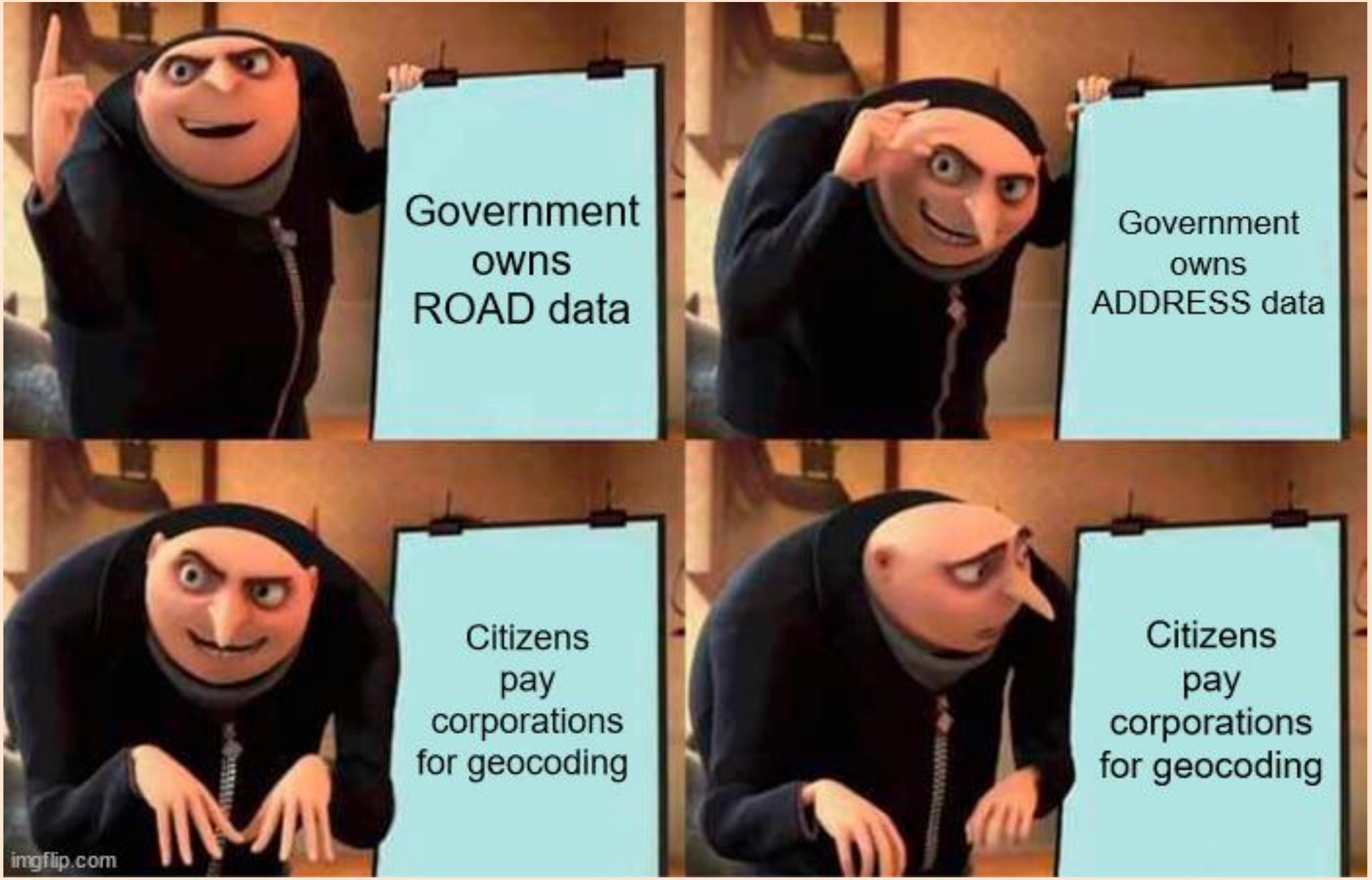


Name: **Los Angeles, CA,USA**
Country: **United States**
Layer: **Locality**
Lon.: **-118.25703**
Lat.: **34.05513**

Leaflet vs. Google Maps (again)



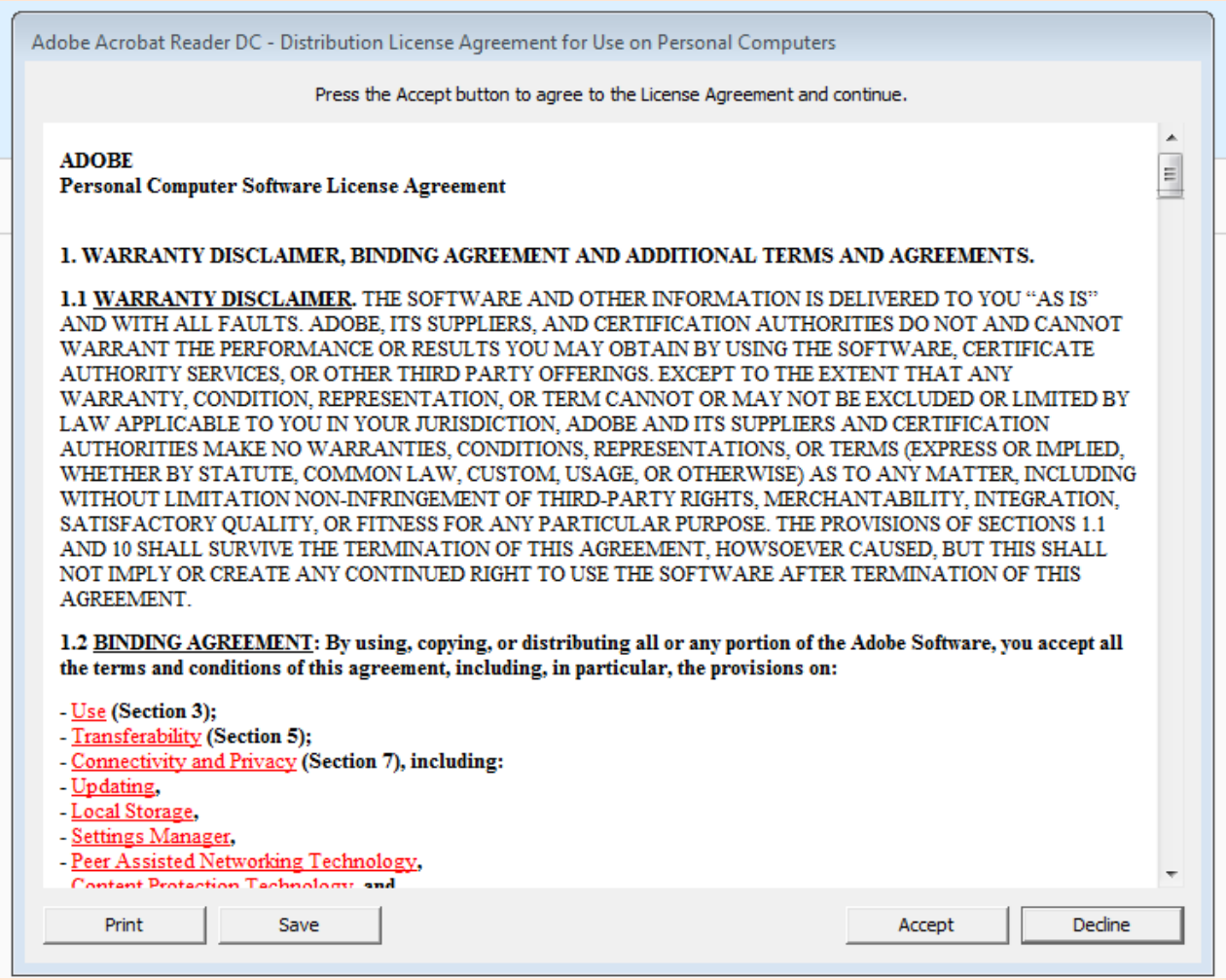



Government owns ROAD data
Government owns ADDRESS data
Citizens pay corporations for geocoding
Citizens pay corporations for geocoding
imgflip.com

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.

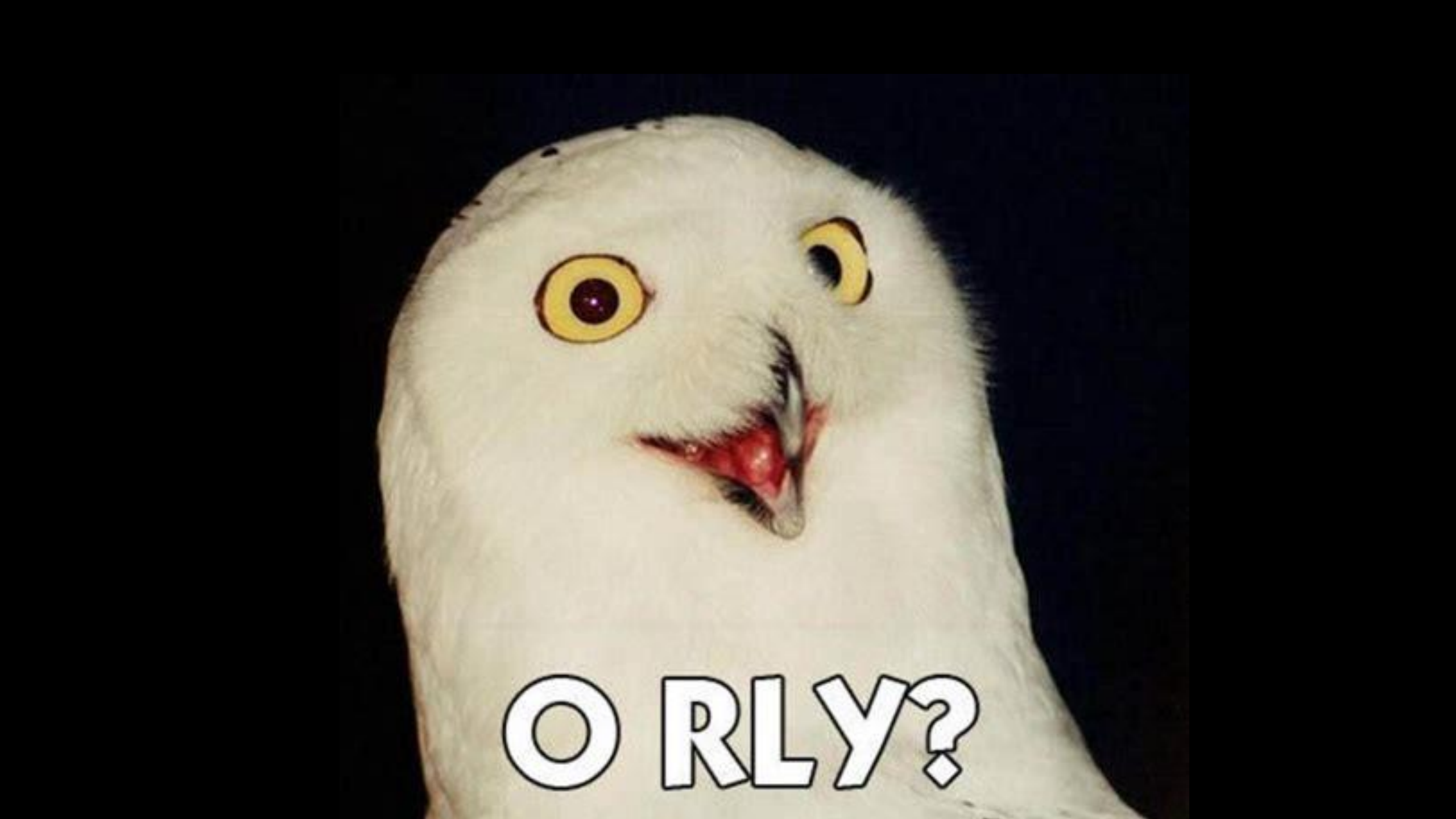
How far will you (Pokemon) Go to protect your private data?

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

Google

“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


O RLY?

Google in 2020

SECURITY

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

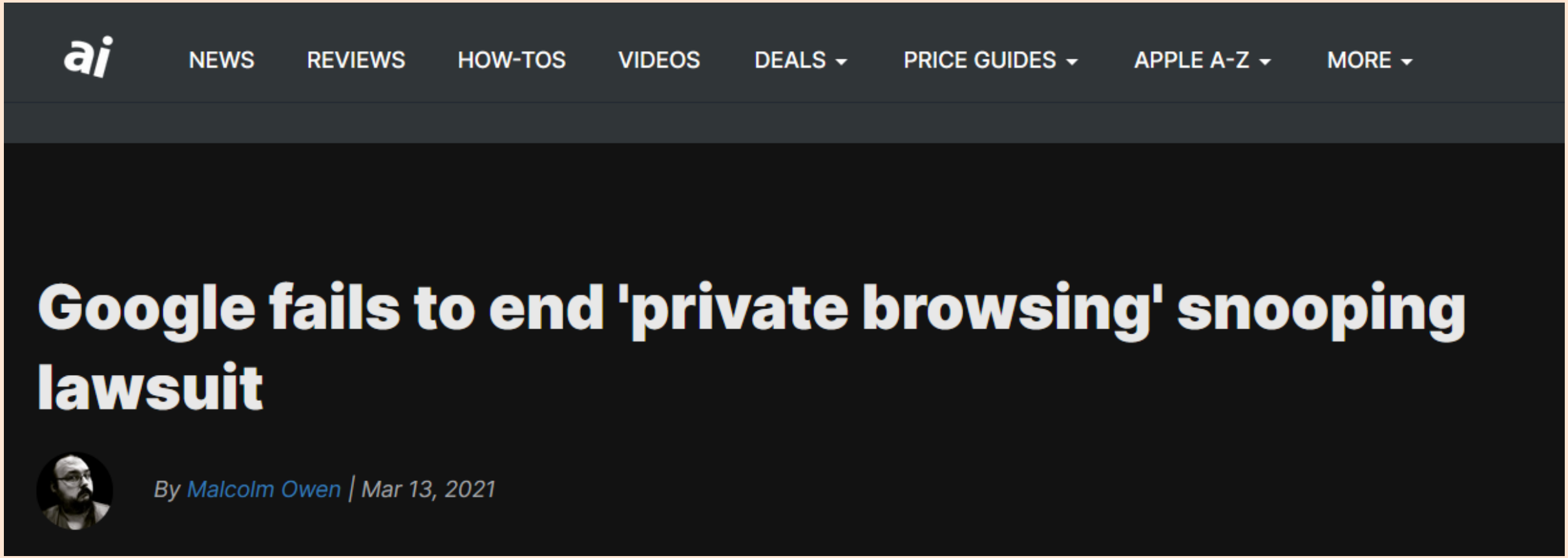
Google "cannot continue to engage in the covert and unauthorized data collection from virtually every American with a computer or phone," the complaint said.

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

By Reuters

https://www.nbcnews.com/tech/security/google-sued-u-s-tracking-users-private-internet-browsing-n1222676

Google in 2021



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

Google in 2023

PICTURES | THU MAR 30, 2023 | 6:28PM EDT

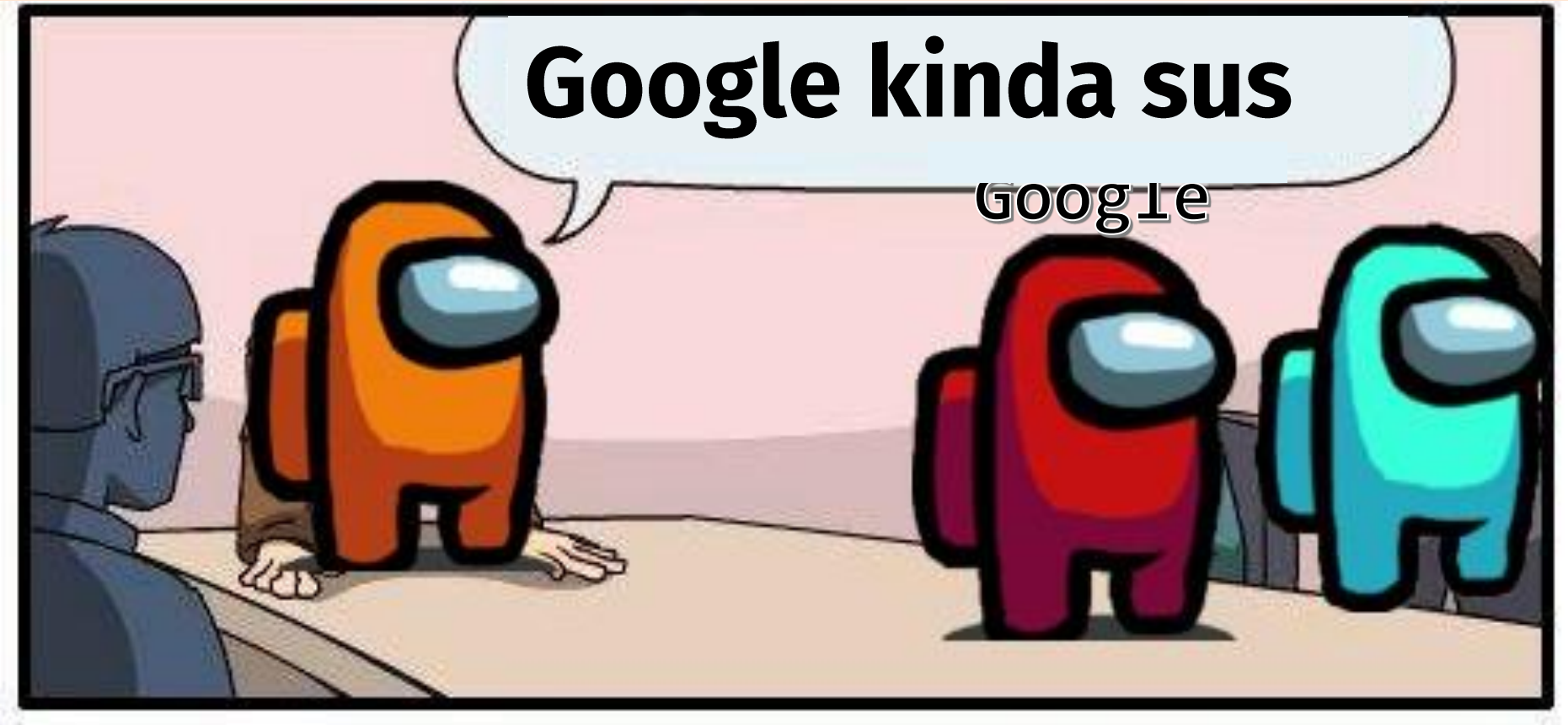
US court sanctions Google in privacy case, company's second legal setback in days

1/1

FILE PHOTO: The logo of Google LLC is seen at a Google Store in New York City, U.S., January 20, 2023. REUTERS/Shannon Stapleton/File Photo

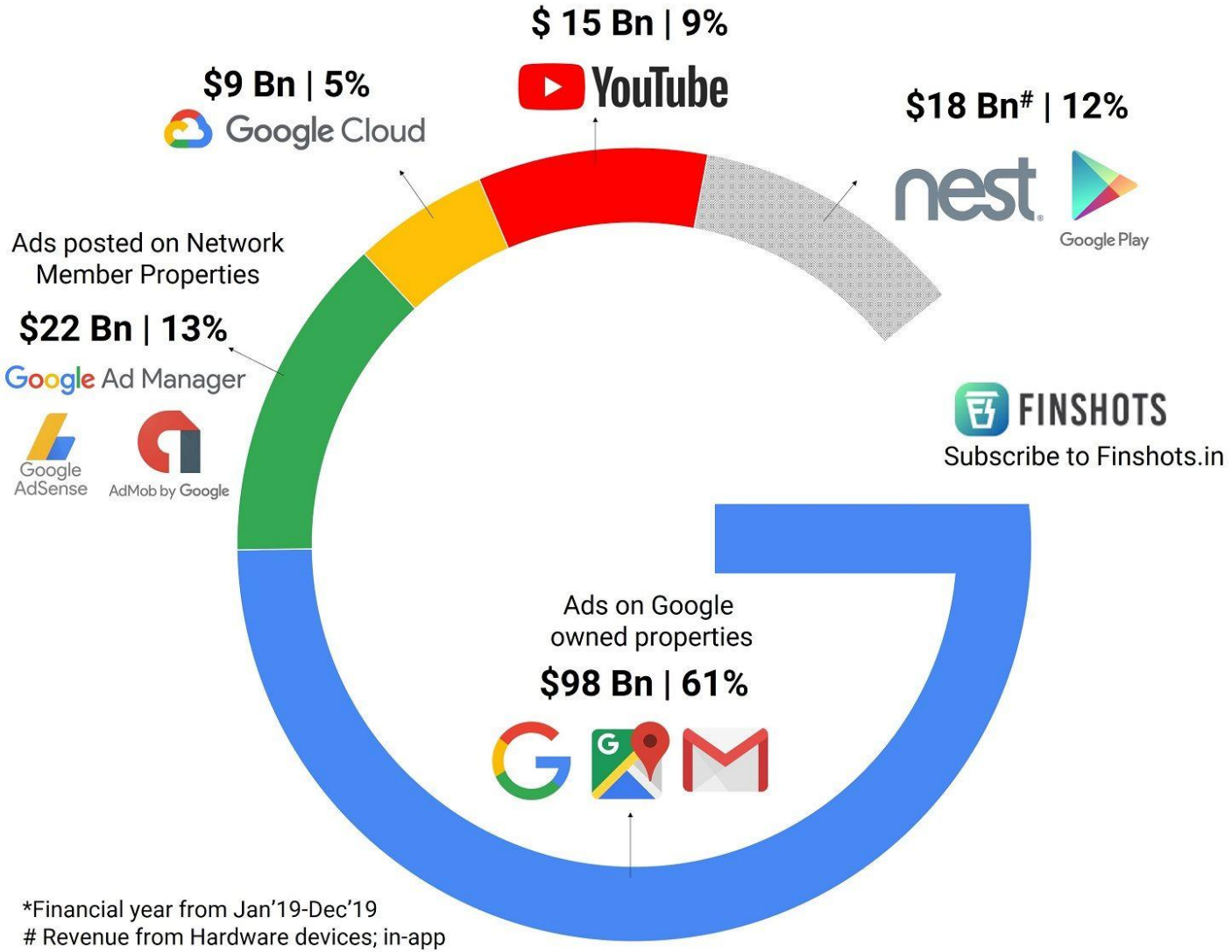
https://www.reuters.com/news/picture/us-court-sanctions-google-in-privacy-cas-idUSKBN2VW1Z2

How important are Ads to Google?



BREAKING DOWN REVENUE STREAMS OF GOOGLE (ALPHABET)

Total Revenues: $162 Bn



*Financial year from Jan'19-Dec'19
Revenue from Hardware devices; in-app purchases & digital content on Play Store; Misc revenues.

THE TERM PAPER
You can skip to video in 5
21 BÖLÜM
Ad · 0:43
grammarly.com
0:01 / 0:43

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!

Your browser does not have FloC enabled.

The FLoC origin trial only affects Google Chrome versions 89 and above.

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 | 0 Comments / 0 New

https://www.theverge.com/2022/1/25/22900567/google-floc-abandon-topics-api-cookies-tracking

How important are Ads to Google in 2023?

Shot down: Google's grand fancy plan for pro-privacy 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.

https://www.theregister.com/2023/01/18/google_topics_api/

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.

https://www.theregister.com/2022/09/08/ad_blockers_chrome_manifest_v3/

Outfoxing Google with Firefox

gorhill / uBlock

Code | Issues 47 | Pull requests | Actions | Projects | Wiki | Security | Insights

uBlock Origin works best on Firefox

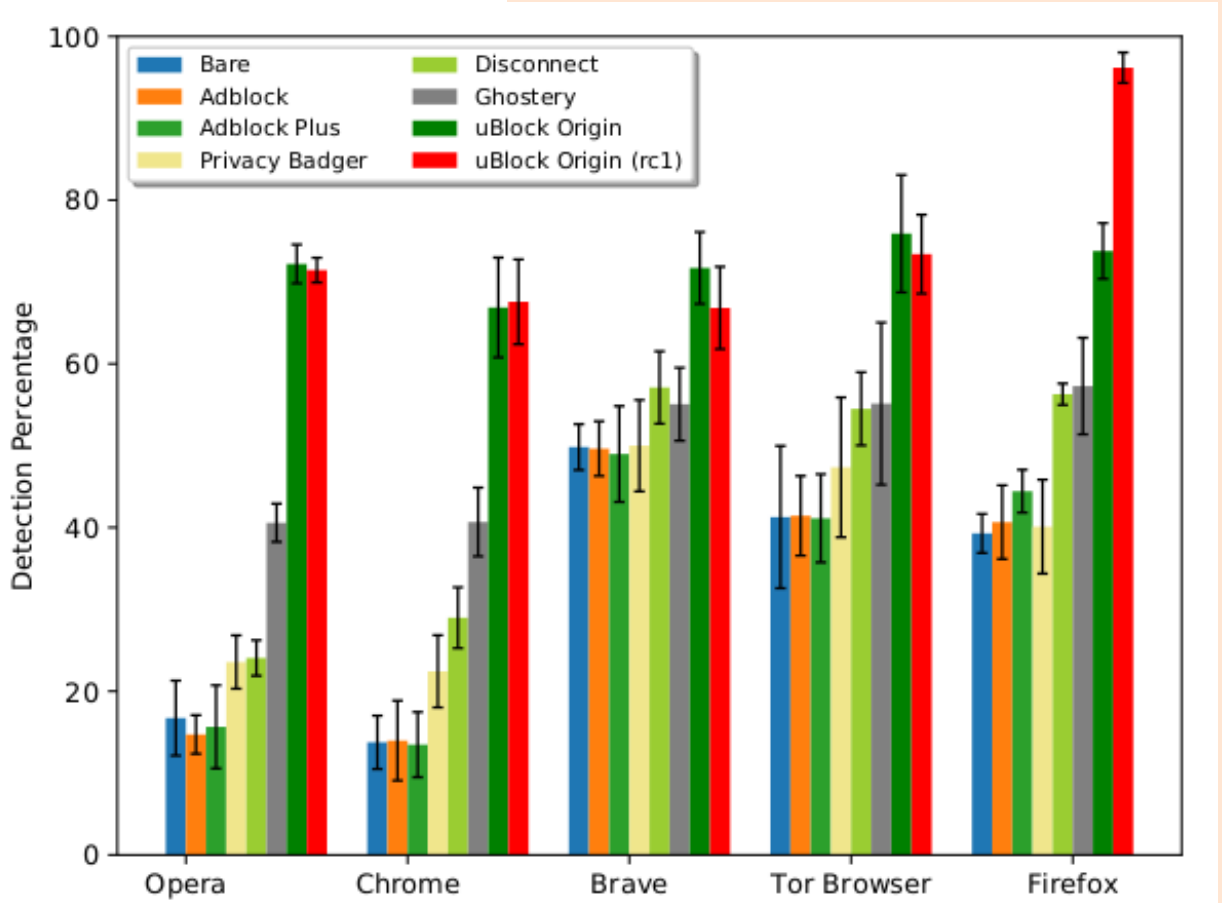
Raymond Hill edited this page 3 days ago · 5 revisions

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

Google is not alone.

The Observer
Facebook

Another huge data breach, another stony silence from Facebook

Carole Cadwalladr

Sun 11 Apr 2021 03.45 EDT

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

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-hide-why-the-popular-response-to-online-privacy-is-so-flawed

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

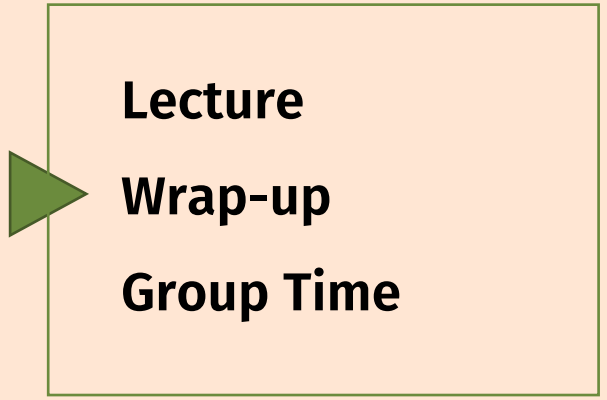
- ✓ Think about what information can be helpful for community members/local organizations
- ✓ Teach and give ownership to local people (Tech included)
- ⊘ Extract information without assessing safety and privacy
- ⊘ Use any tool available because it’s “easy”

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



Thinking Cap for the week:

How are closed source tools harmful for civil society? What about open source tools? Where do you think Artificial Intelligence (AI) fits into this?

Assignments

Due Thursday 4/20:

1. **Lab Assignment #2**
2. **(Optional)** Pre-Lab reading

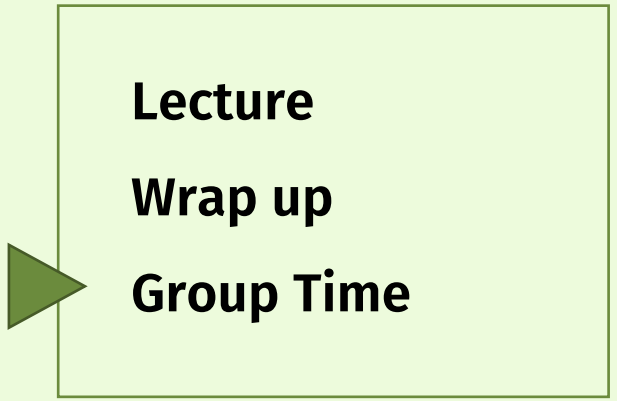
Extra Credit Reminders

Due Thursday 4/27:

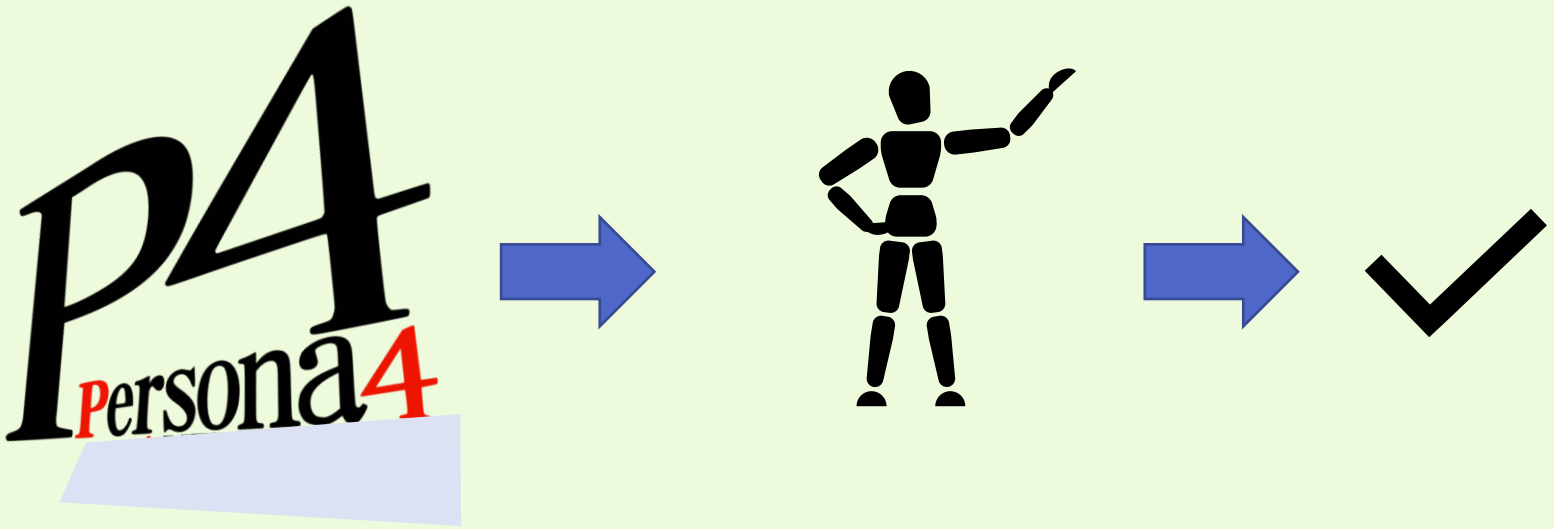
1. **UCLA vs USC Mapathon that starts today!**
2. **Extra Thinking Cap**

Group Time

Memos!



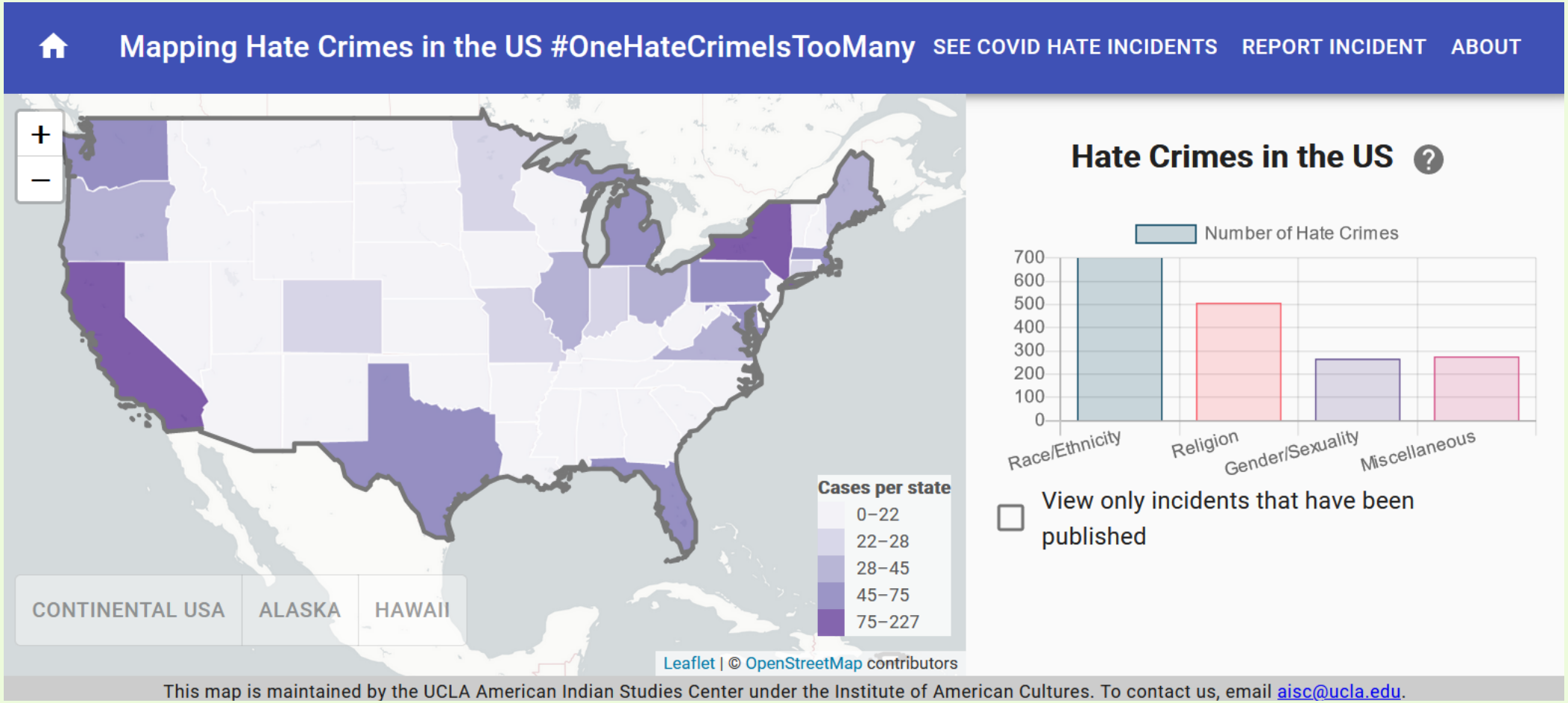
Memo: Revisiting User Stories



Memo: Revisiting User Stories

Broad goals your users should be able to use your website for.

Memo: Revisiting User Stories

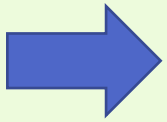


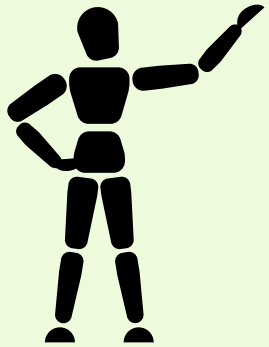
Memo: Revisiting User Stories

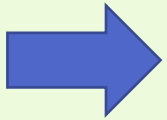
As a person who faced a hate crime

I want to report my incident without fear from authorities

So that people can hear my story and take action to prevent more from occurring



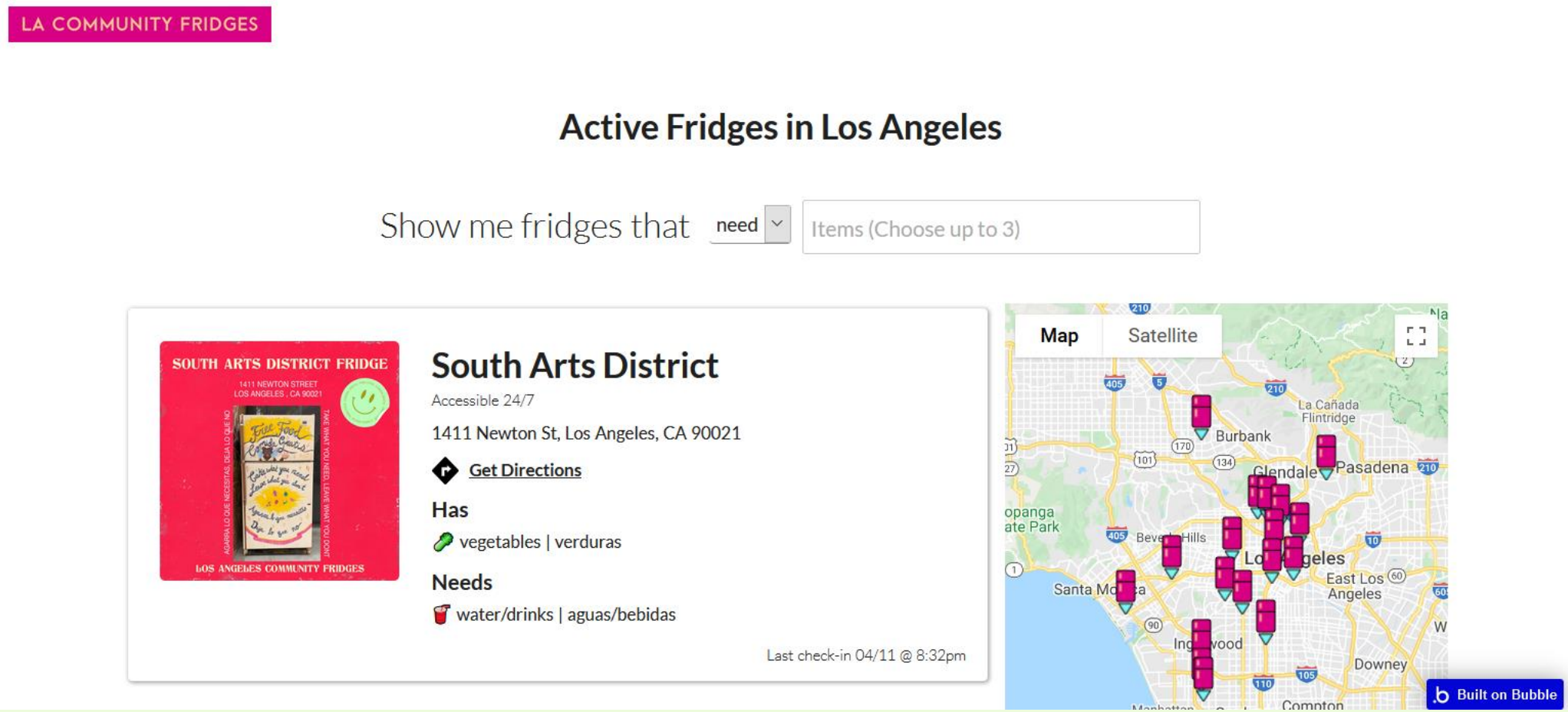




Memo: Revisiting User Stories

https://newsroom.ucla.edu/releases/hate-crime-map

Memo: Revisiting User Stories



https://community-fridge.bubbleapps.io/

Group Time

- **Meet with your group to discuss:**
  - **General project idea**
  - **Potential user stories**
- **Present to the class:**
  - **Elevator pitch**
  - **Optional: Share with us 2 user stories**

- **If all your group members are missing join up with other students with missing members to discuss your project!**

Group Assignment #2

Memo

- Background on the social issue/campaign
- Goals
- Community/organization description
- At least 2 user stories
- 3 Ideas of questions to be included on the survey
- Future plans

2 pages MAX!!!!