

# Lecture 20: CCPA Opt-outs

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CS 181W

Fall 2022

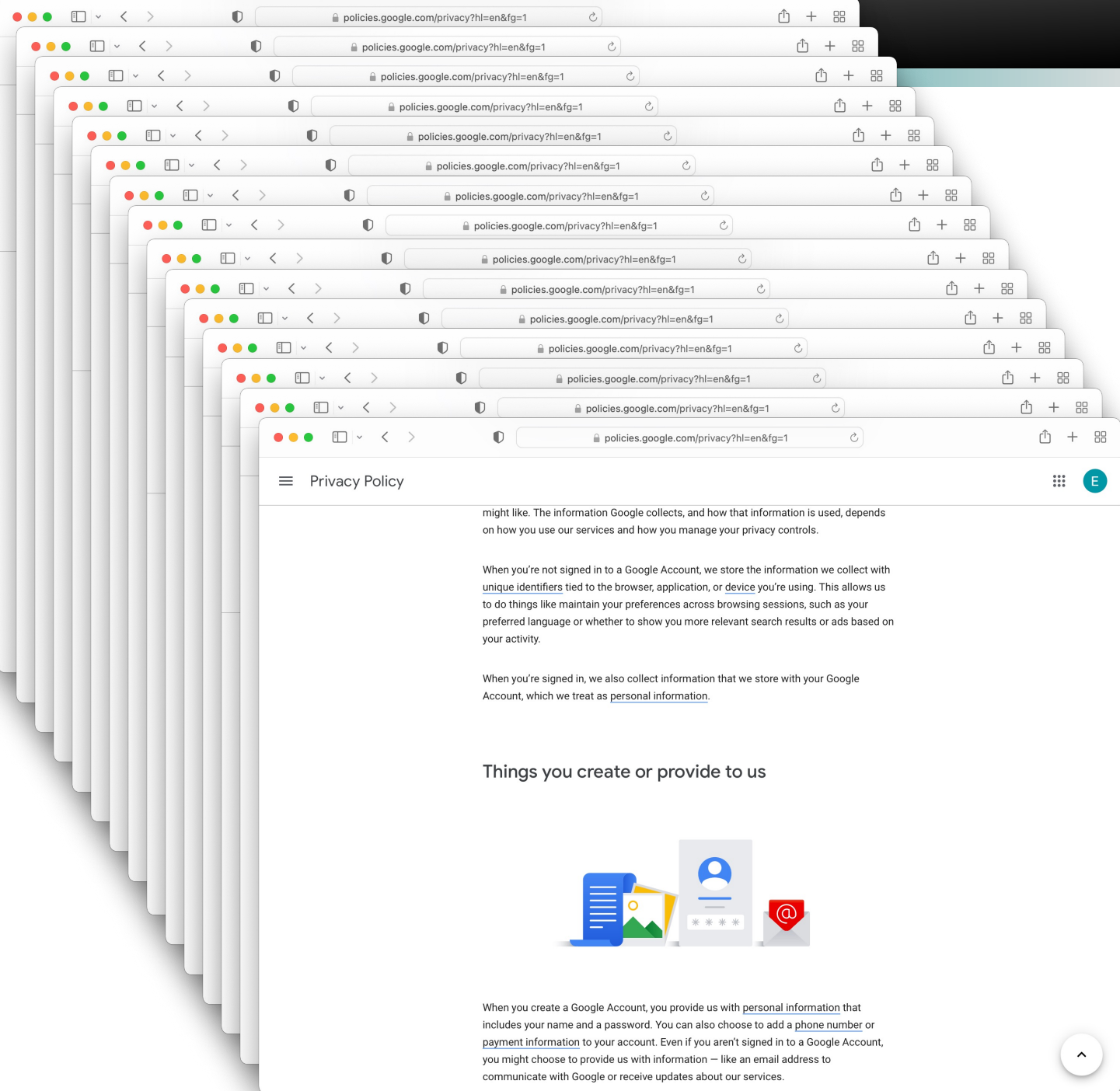
# Recall: Privacy as Control

Privacy is the claim of individuals, groups or institutions to determine for themselves what extent information about them is communicated to others.

## Informed Consent

– Alan Westin

*Privacy and Freedom, 1967*



## Privacy Policy

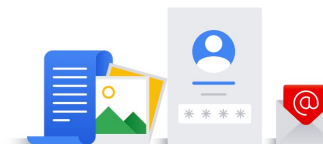


might like. The information Google collects, and how that information is used, depends on how you use our services and how you manage your privacy controls.

When you're not signed in to a Google Account, we store the information we collect with unique identifiers tied to the browser, application, or device you're using. This allows us to do things like maintain your preferences across browsing sessions, such as your preferred language or whether to show you more relevant search results or ads based on your activity.

When you're signed in, we also collect information that we store with your Google Account, which we treat as personal information.

### Things you create or provide to us



When you create a Google Account, you provide us with personal information that includes your name and a password. You can also choose to add a phone number or payment information to your account. Even if you aren't signed in to a Google Account, you might choose to provide us with information — like an email address to communicate with Google or receive updates about our services.



# Problems with Privacy Policies

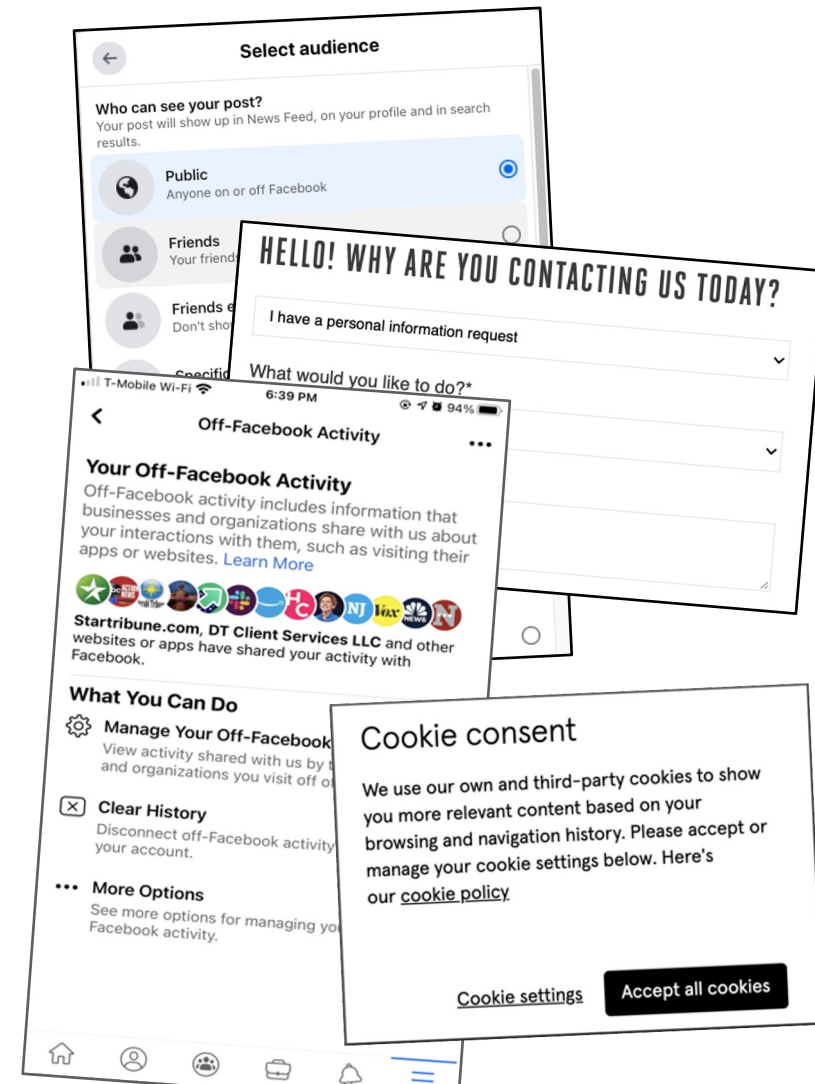
1. People don't read privacy policies
2. People don't understand privacy policies

# Improving on Privacy Policies

- ~~Idea #1: Improve how information is communicated~~
- Idea #2: Give people choices
- Idea #3: Legally-mandate absolute protections

# Privacy consent and choice interfaces

- App permissions interfaces
- Audience controls on social media
- Cookie banners
- Third-party advertising controls
- Marketing opt-outs
- CCPA do not sell my personal information interfaces
- GDPR privacy rights interfaces



# California Consumer Privacy Act

- **Goal:** Give users more control over their personal information.
- Introduced four key rights:
  1. The right to know
  2. The right to delete
  3. **The right to opt-out of sale**
  4. The right to non-discrimination
- Signed: June 28, 2018
- Enforced: July 1, 2020

# The Right to Opt-out of Sale

Users have the right to opt-out of the **sale** of their **personal information**.

Businesses must provide a **"a clear and conspicuous link"** on the homepage of their website entitled **"Do Not Sell My Personal Information"**.

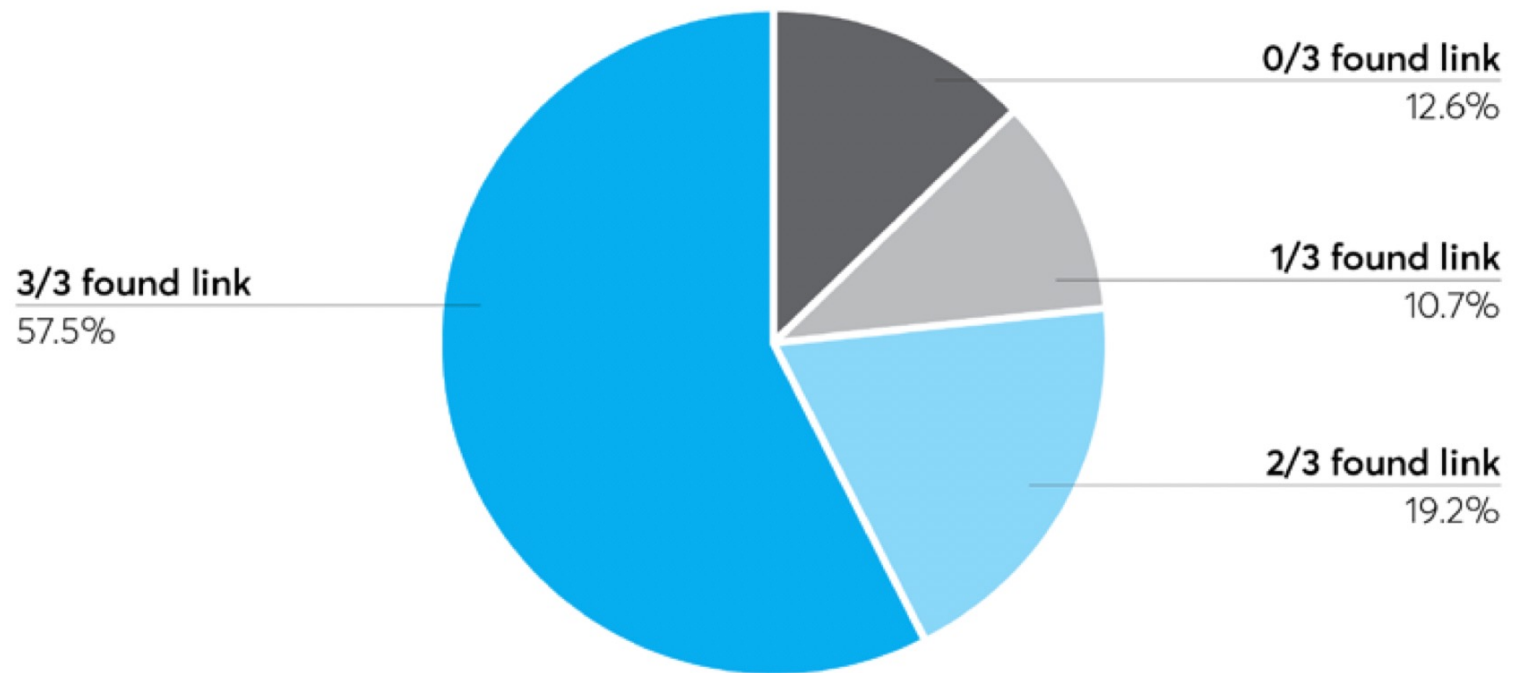


# How usable are CCPA opt-outs?

- Consumer reports study (May 2021)
- identified 234 California data brokers
- randomly assigned people to opt-out of sale on websites
  
- 403 participants
- analyzed 3 requests 214 data brokers

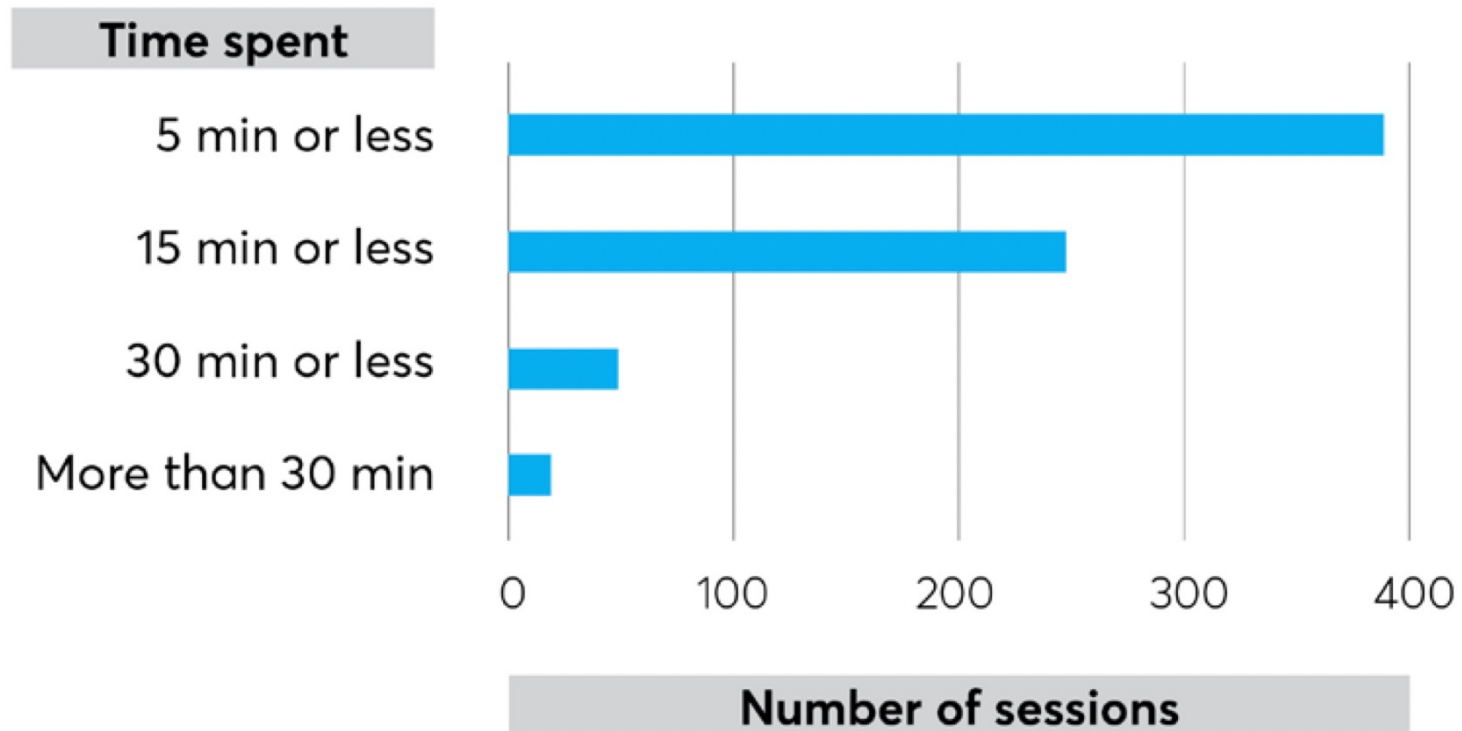
# How usable are CCPA opt-outs?

## Brokers by number of testers who found DNS link



# How usable are CCPA opt-outs?

## Sessions By Time Spent



3

a manual observational study

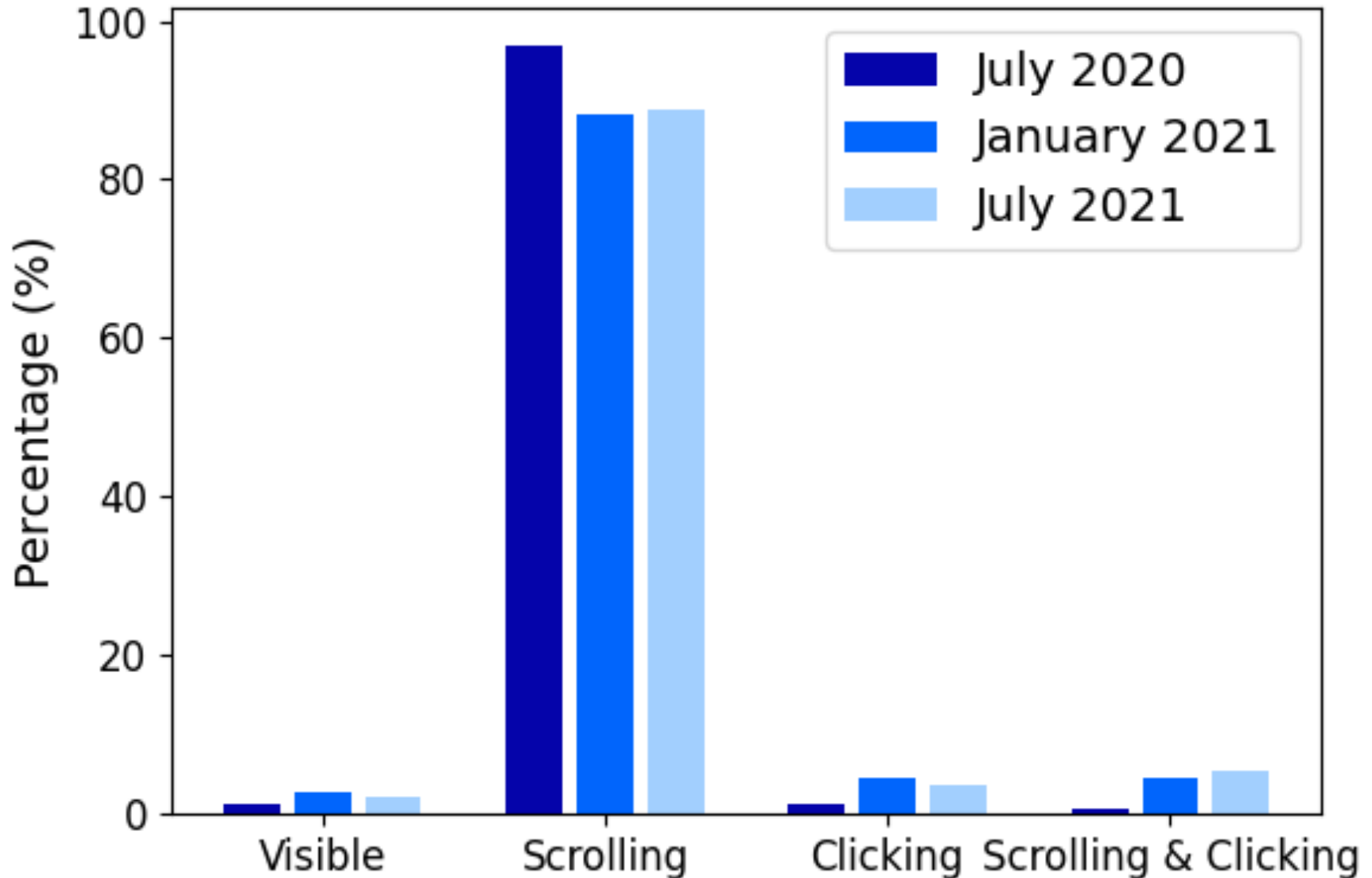
# LET'S PLAY A GAME

Example 1: <https://www.buzzfeed.com>

Example 2: <https://www.yahoo.com>

Example 3: <https://www.walmart.com>

# Link Accessibility (Top 500 U.S.)



### California DO NOT SELL Web Form

You can use this form to submit a request to opt out of the sale of personal information associated with a California resident or household.

A member of DTMG's privacy team will respond as soon as possible after you submit this

Browser tabs: CCPA - Do Not Sell My Info | Hul... x +  
Product reviews, how-tos, deals... x  
California Do Not Sell My Person... x  
Cookies & Other Tracking Techno... x  
CBS Privacy Rights Manager x | +  
Do Not Sell My Information x +

Address bar: gofundme.com/ccpa-sale

Search For individuals For nonprofits



How it works Sign in

Start a GoFundMe

Pursuant to our [California Consumer Privacy Act Notice](#) available to California residents, to opt out of a sale of your information generally, please visit either the [Network Advertising Initiative's Consumer opt-out](#) link or the [Digital Advertising Alliance's Consumer opt-out](#) link. These sites will permit you to manage cookies from being put on your computer by us or others.

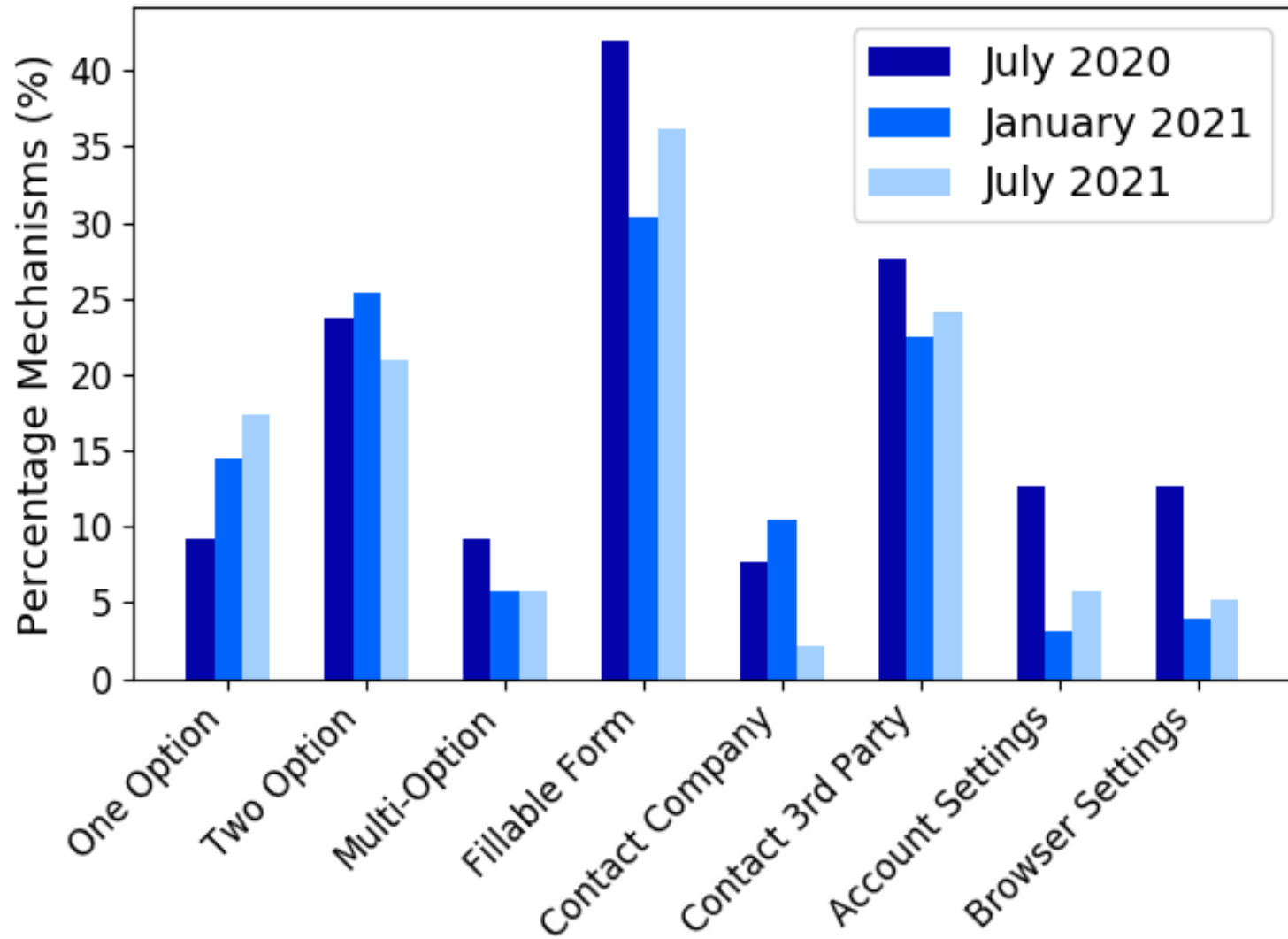
In addition, please exercise your choices regarding any action taken by the Social Networking Services we employ, which links are provided here:

|           |  |  |
|-----------|--|--|
| Facebook  | <a href="#">Facebook Privacy Policy</a>  | <a href="#">Facebook Terms of Service</a>  |
| Instagram | <a href="#">Instagram Privacy Policy</a> | <a href="#">Instagram Terms of Service</a> |
| Kakao     | <a href="#">Kakao Privacy Policy</a>     | <a href="#">Kakao Terms of Service</a>     |
| Line      | <a href="#">Line Privacy Policy</a>      | <a href="#">Line Terms of Service</a>      |
| LinkedIn  | <a href="#">LinkedIn Privacy Policy</a>  | <a href="#">LinkedIn Terms of Service</a>  |
| Twitter   | <a href="#">Twitter Privacy Policy</a>   | <a href="#">Twitter Terms of Service</a>   |
| Vimeo     | <a href="#">Vimeo Privacy Policy</a>     | <a href="#">Vimeo Terms of Service</a>     |
| YouTube   | <a href="#">YouTube Privacy Policy</a>   | <a href="#">YouTube Terms of Service</a>   |

Windows taskbar: Type here to search | [Taskbar icons: File Explorer, Mail, Photos, Edge, Word, Excel, PowerPoint, Chrome, etc.] | 12:10 PM 7/8/2020

I'm not a robot reCAPTCHA Privacy - Terms

# Opt-out Mechanisms





# Nudging

To opt out of Zoom making activities which may be covered by our [Privacy Policy](#)

## Are you sure you don't want to allow these partners?

We and our advertising partners collect personal information (such as the cookies stored on your browser, the advertising identifier on your mobile device, or the IP address of your device) when you visit our site or use our app. We, and our partners, use this information to tailor and deliver ads to you on our site or app, or to help tailor ads to you when you visit others "sites or use others" apps. To tailor ads that may be more relevant to you, we and/or our partners may share the information we collect with third parties.

To learn more about the information we collect and use for advertising purposes, please see our [Privacy Policy](#). If you do not wish for us or our partners to sell your personal information to third parties for advertising purposes, select the applicable control from the "Do Not Sell My Info" link provided. Note that although we will not sell your personal information after you click that button, we will continue to share some personal information with our partners (who will function as our service providers in such instance) to help us perform advertising-related functions such as, but not limited to, measuring the effectiveness of our ads, managing how

I'm sure

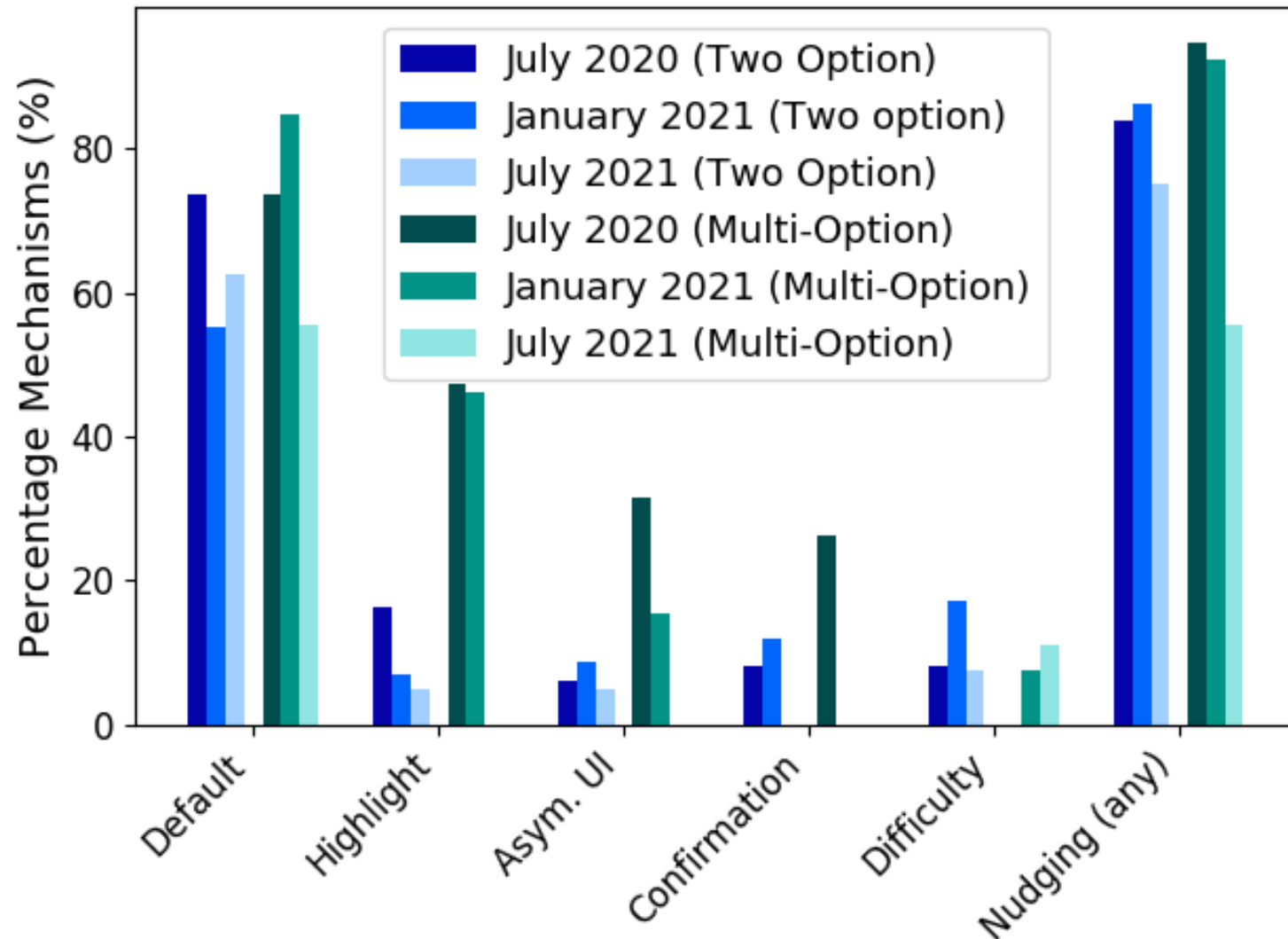
Ok, allow all

C. Precise geographic location data

[Do not sell my info](#)

Allow all

# Nudging



# User Study: Link vs. Banners

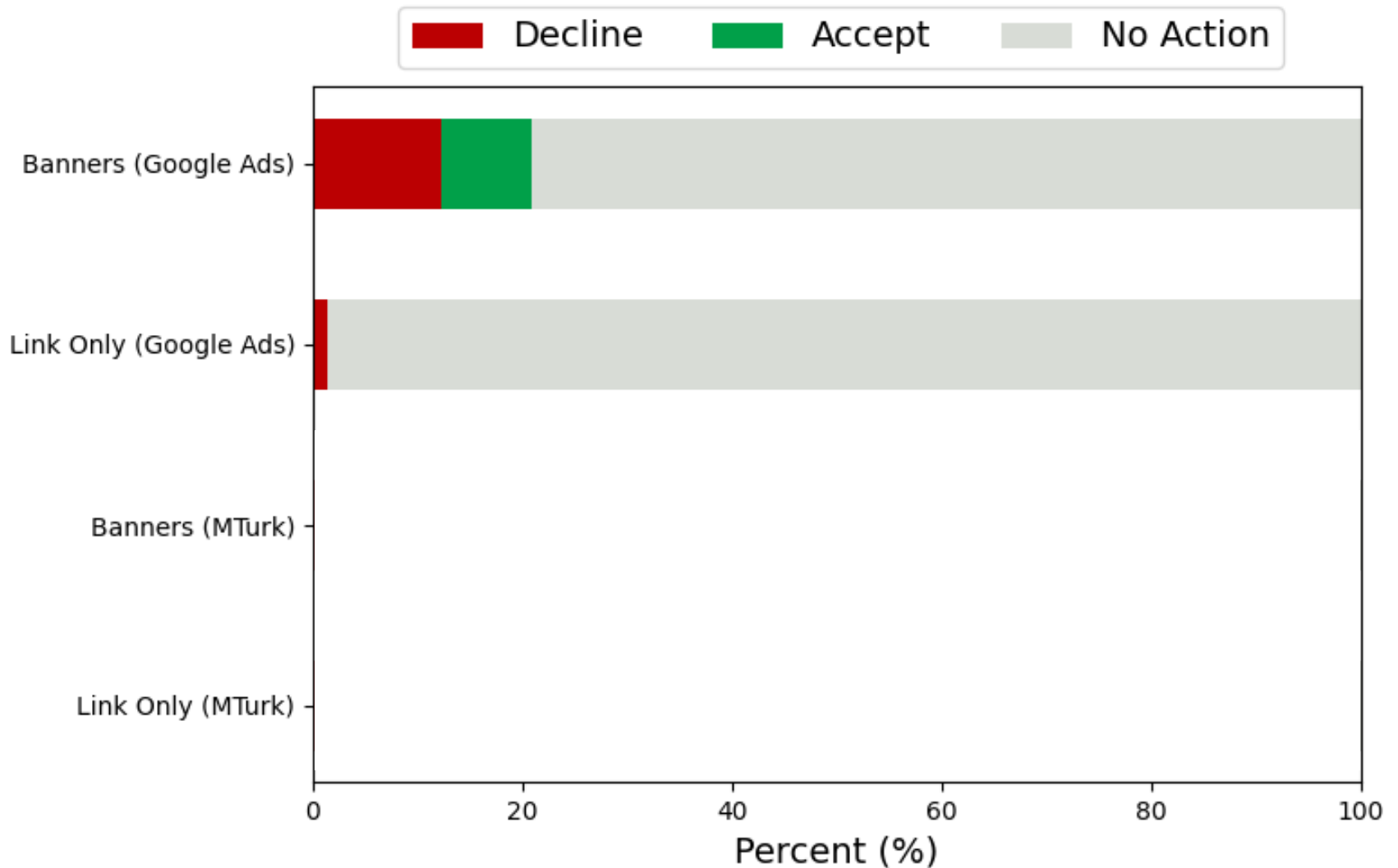
The image shows a screenshot of a web browser displaying a news website. A grid is overlaid on the page to identify key areas for user study. The grid cells are labeled as follows:

- Top Left:** The top-left corner of the page.
- Top Banner:** The top-center section, containing a large image of a woman in an orange jacket.
- Top Right:** The top-right corner of the page.
- Center:** A large central area containing a white box with the word "Center" written inside.
- Bottom Right:** The bottom-right corner of the page.

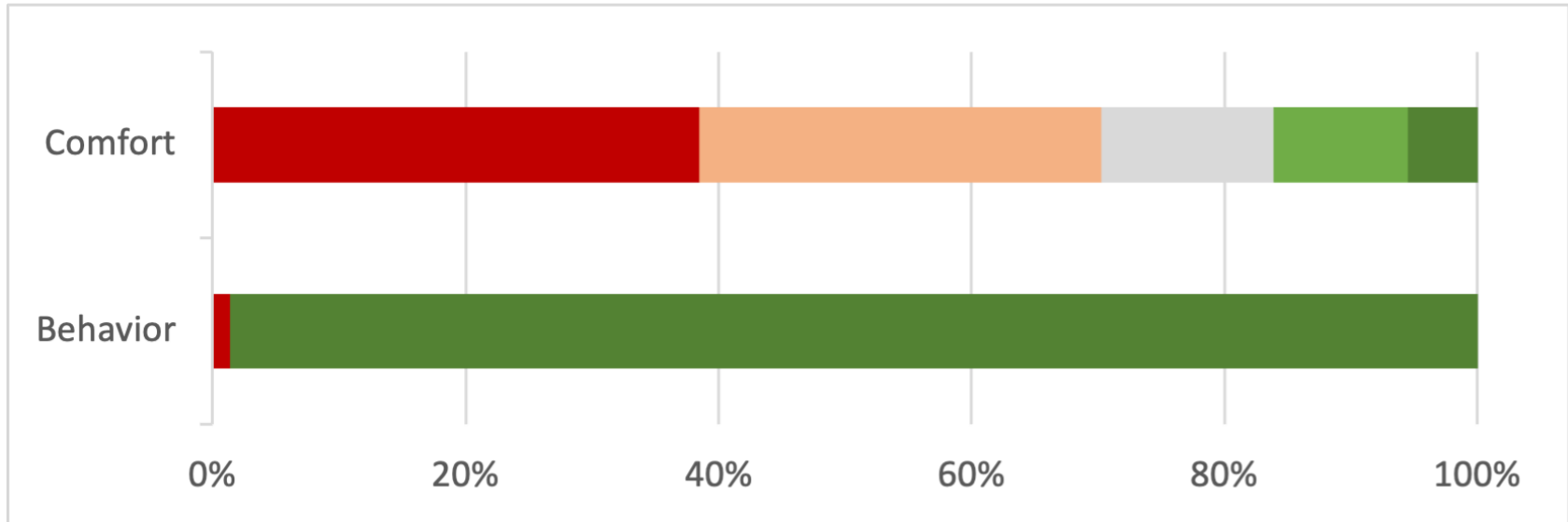
Other visible elements on the page include:

- Navigation tabs: Home, Left-Wind, Center, Right-Wind, International.
- News snippets: "President Donald Trump this week jolted the already fragile 2020 election process by encouraging his supporters to illegally vote twice as a way of testing anti-fraud safeguards.", "Global stock markets fell continued rise in the number dashed hopes of a swift pandemic-induced economic demand for safe-haven currencies like the dollar and Japan.", "President Donald Trump will hold a Thursday evening campaign rally in Latrobe, Pennsylvania, at Arnold Palmer Regional Airport. Stay tuned to Breitbart News for live updates. All times Eastern. | 2020 Election".
- Logos: BBC News, CNN, USA Today.
- Footer: A blue banner with a privacy policy notice and two buttons: "ACCEPT COOKIES" and "DO NOT SELL MY INFORMATION".

# User Study: Link vs. Banners



# Follow-up Questions



45.5%

# User Study: Nudging and Inconvenience

California residents have certain rights with regard to the sale of personal information to third parties. We use information collected through cookies or in other forms to improve experience on our site and pages, analyze how it is used and show personalized advertising. At any point, you can opt out of the sale of all of your personal information by pressing "Do not sell my personal information". You can find more in our Privacy Policy

DO NOT SELL MY INFORMATION

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ACCEPT COOKIES

California residents have certain rights with regard to the sale of personal information to third parties. We use information collected through cookies or in other forms to improve experience on our site and pages, analyze how it is used and show personalized advertising. You can opt out of the sale of your personal information for each purpose through changing its corresponding toggle to the left. You can find out more in our Privacy Policy.

Personalized Advertising



Analytics

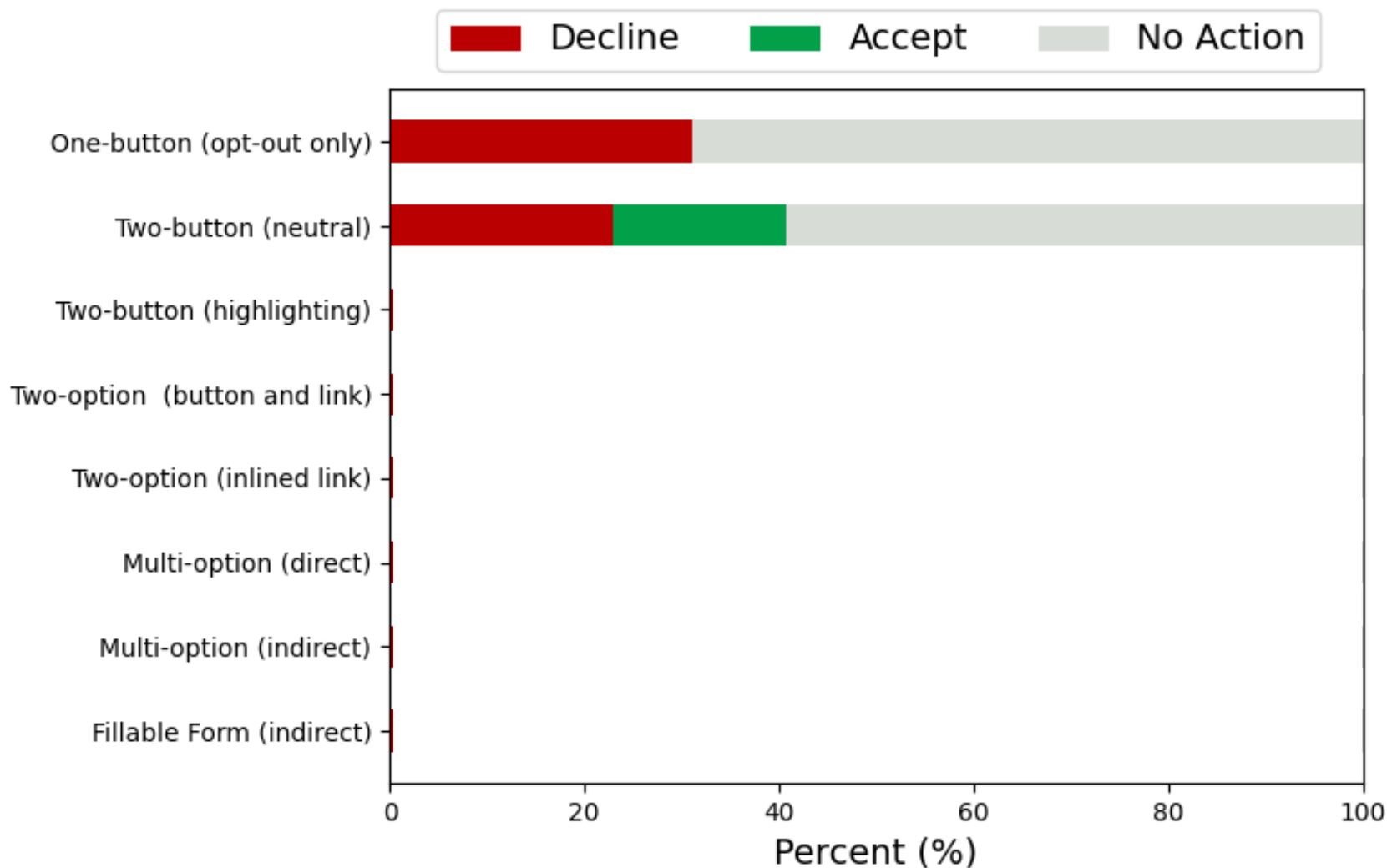


Content Personalization



SUBMIT RESPONSE

# User Study: Nudging and Inconvenience



**DISAPPOINTED**

**BUT NOT SURPRISED**





# CCPA Opt-out Assistant



## CCPA Opt Out Assistant

Remove from Chrome

Offered by: ccpaextension

★★★★★ 4 | [Productivity](#) | 15 users

Overview

Privacy practices

Reviews

Related



TAKE CONTROL OF

# CCPA Opt-out Assistant

The image shows a screenshot of the NBC News website's 'Tech & Media' section. The browser's address bar shows 'nbcnews.com/tech-media'. The navigation menu includes 'NEWS', 'PLAN YOUR VACCINE', 'COVID-19', 'POLITICS', 'U.S. NEWS', 'OPINION', 'WORLD', 'BUSINESS', and 'TECH'. The main heading is 'TECH & MEDIA'. Below the heading are three article thumbnails: 'POLICE' (with a car image), 'CORONAVIRUS' (with a woman on an oxygen mask image), and 'BUSINESS NEWS' (with a photo of Tim Cook). A yellow overlay with a close button (X) is positioned in the bottom-left corner, containing the text: 'This website may sell your information, but does not contain CCPA complaint warnings. You can attempt to opt out below.' Below this text is a 'More Info' link and a black button labeled 'FOLLOW CA PRIVACY LINK'. The bottom of the page shows category labels: 'U.S. NEWS', 'MUSIC', and 'SPACE'.

This website may sell your information, but does not contain CCPA complaint warnings. You can attempt to opt out below.

[More Info](#) **FOLLOW CA PRIVACY LINK**



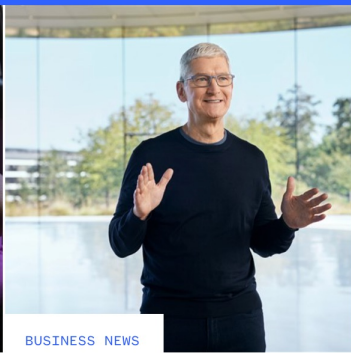
USA via AP



CORONAVIRUS

**Anger grows as India orders Twitter to remove posts critical of Covid response**

Rhea Mogul



BUSINESS NEWS

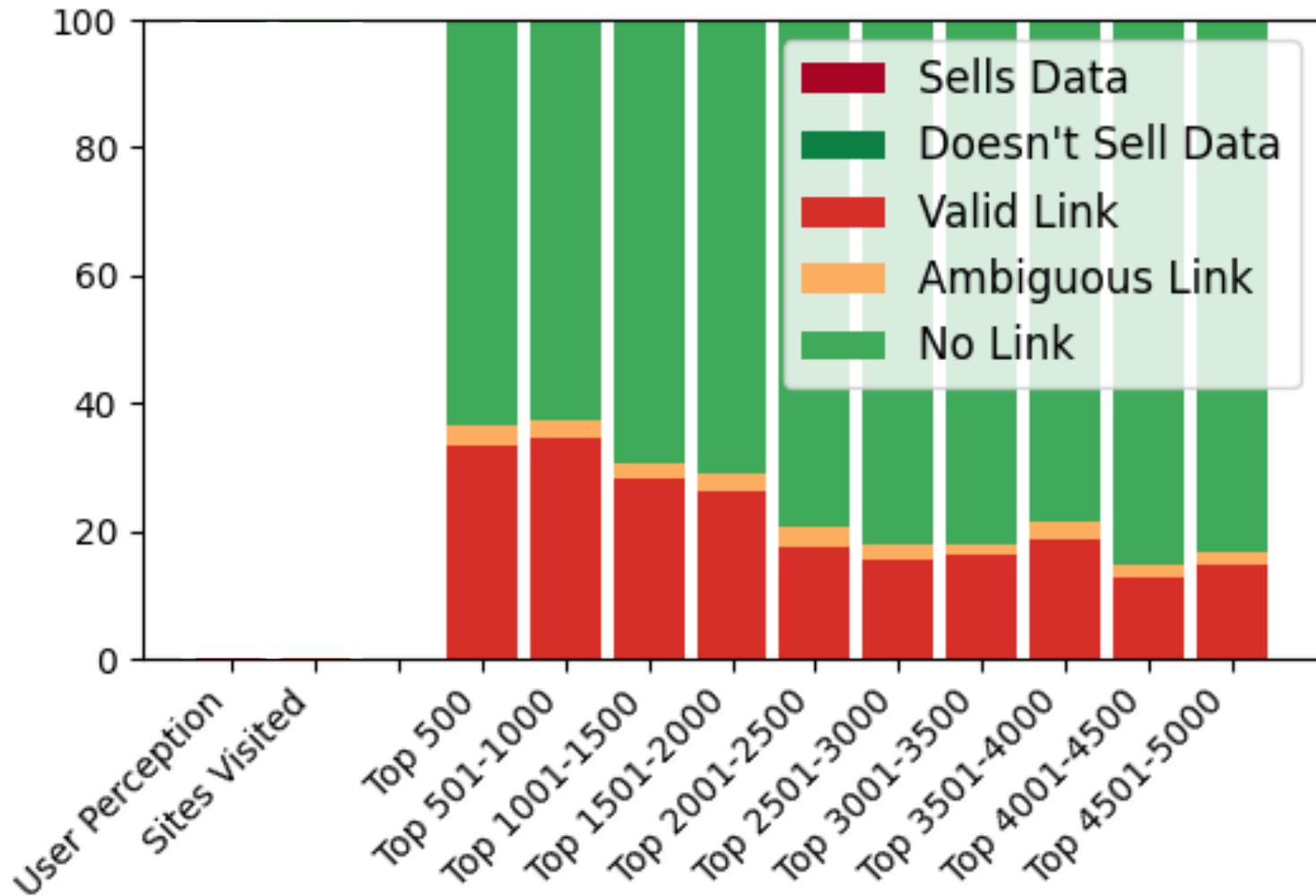
**Apple will spend \$1 billion to open 3,000-employee campus in North Carolina**

Kif Leswing, CNBC

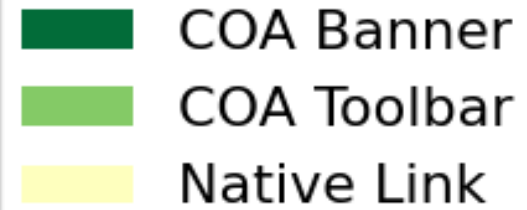
# User Study: Extension

- 54 users recruited on MTurk
- 52 users recruited through Google Ads
- Asked to install and use extension for 1 week
  - 32 MTurkers installed CCPA Opt-out Assistant
  - 22 MTurkers installed control extension
- Logged user behavior
  - hash of website visited
  - whether website had valid (or ambiguous) opt-out of sale link
  - if and how user invoked right to opt-out
- Accepted all participants who used kept extension installed for at least 24 hours

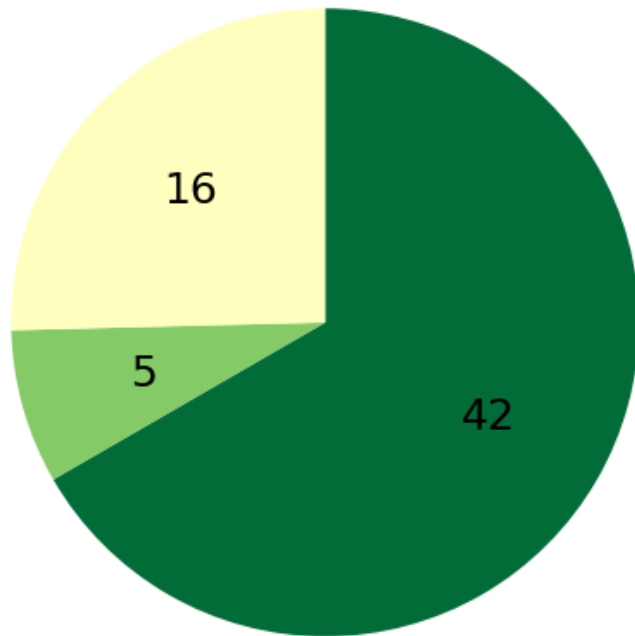
# Sale of Personal Information



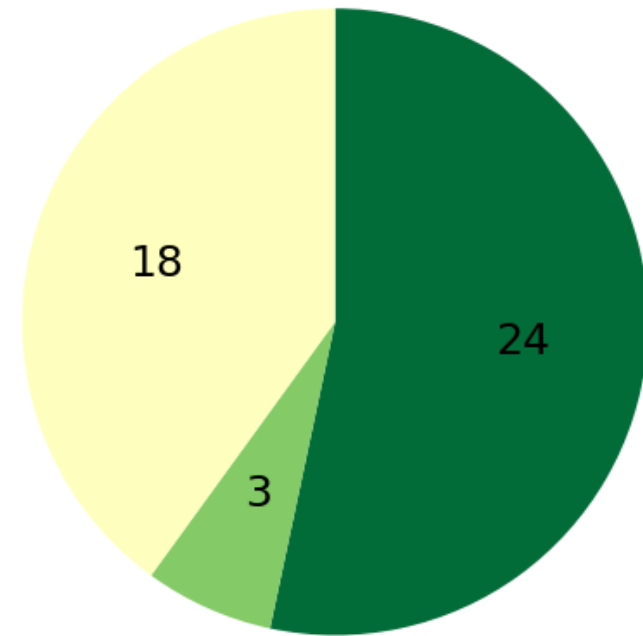
# Opt-out Rates



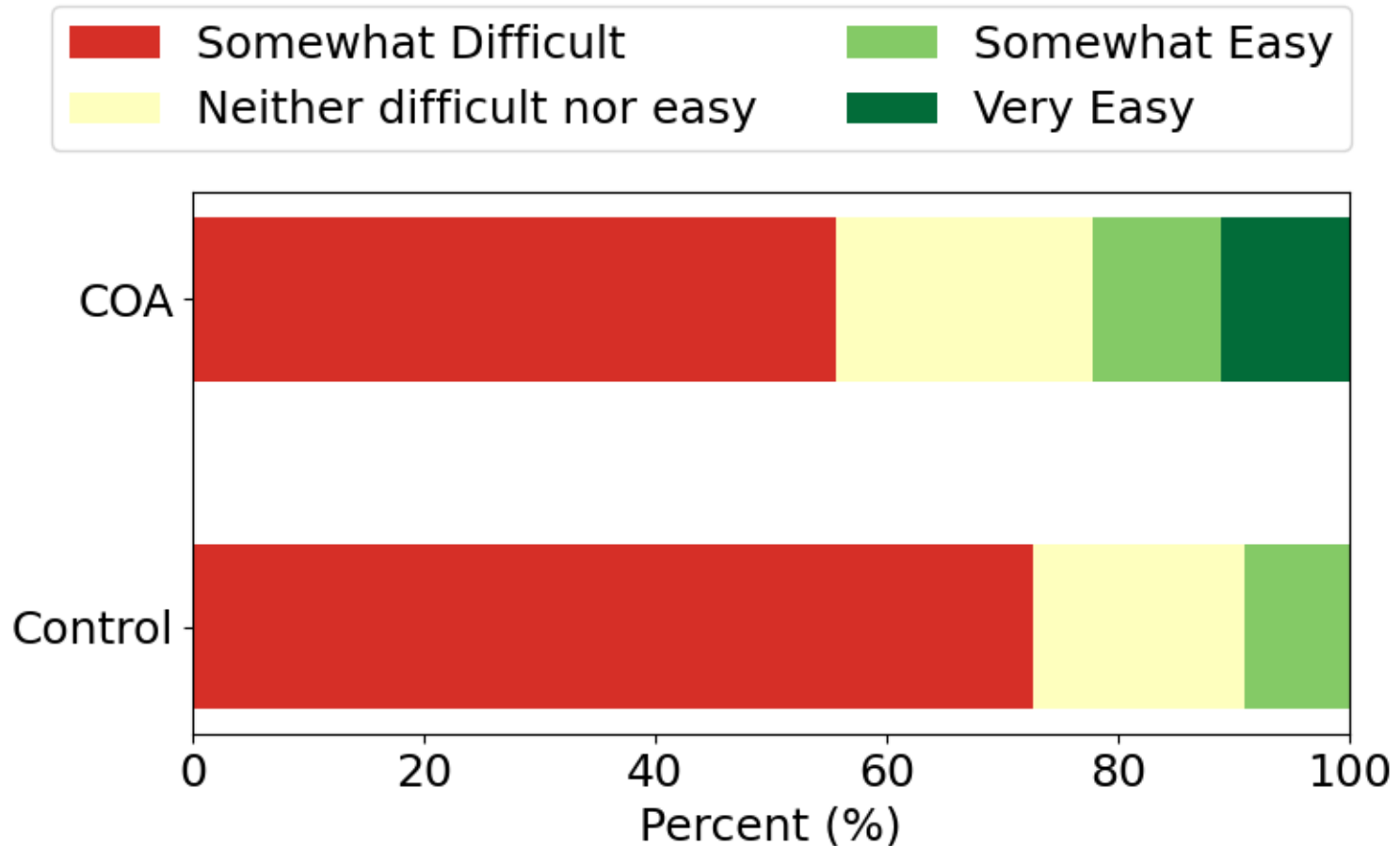
MTurk Users



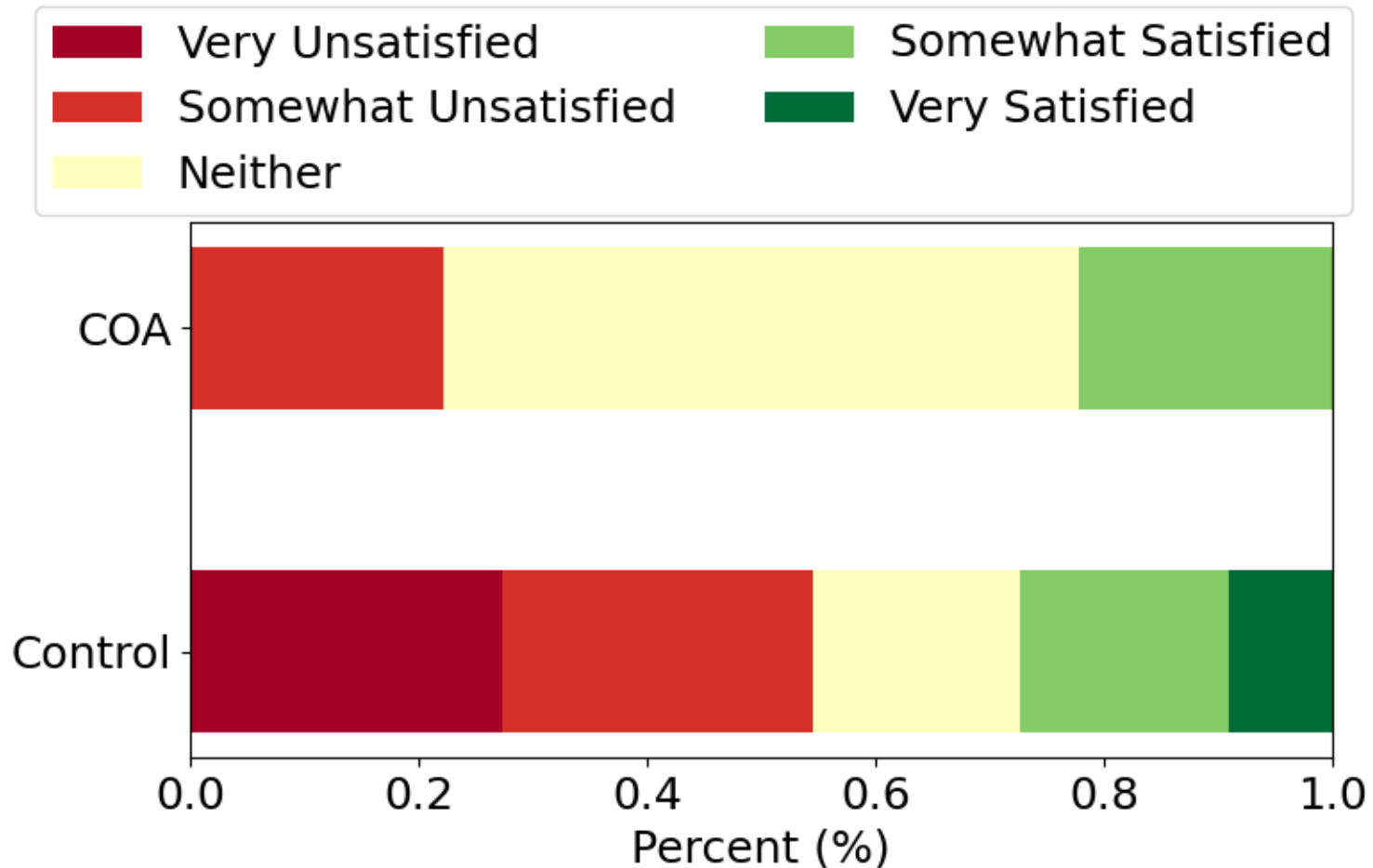
Native Chrome Downloads



# User Experience: Difficulty

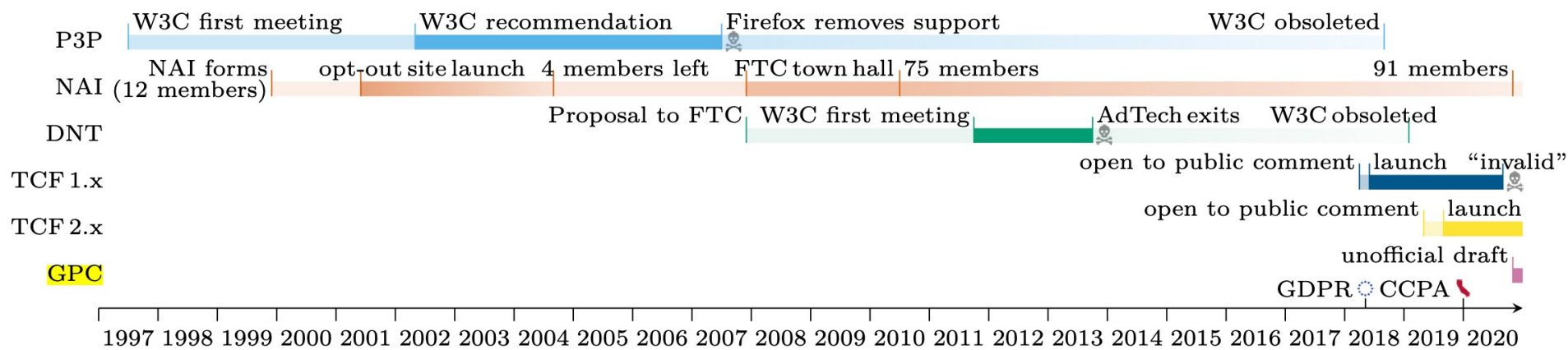


# User Experience: Satisfaction



# Global Privacy Control (GPC)

- browser signal that indicates desire to opt-out of sale on all websites
- Currently available in Firefox, Brave, DuckDuckGo, etc.
- Also available as a Chrome extension

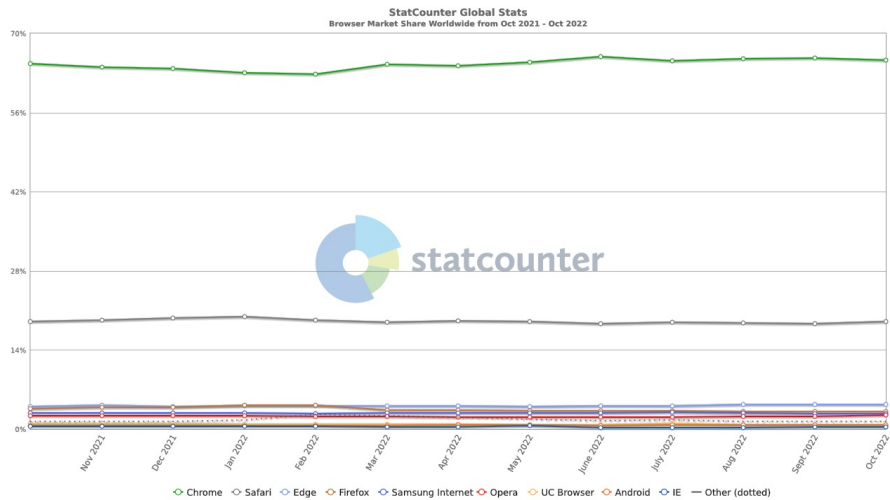


- legally considered a valid signal under CCPA

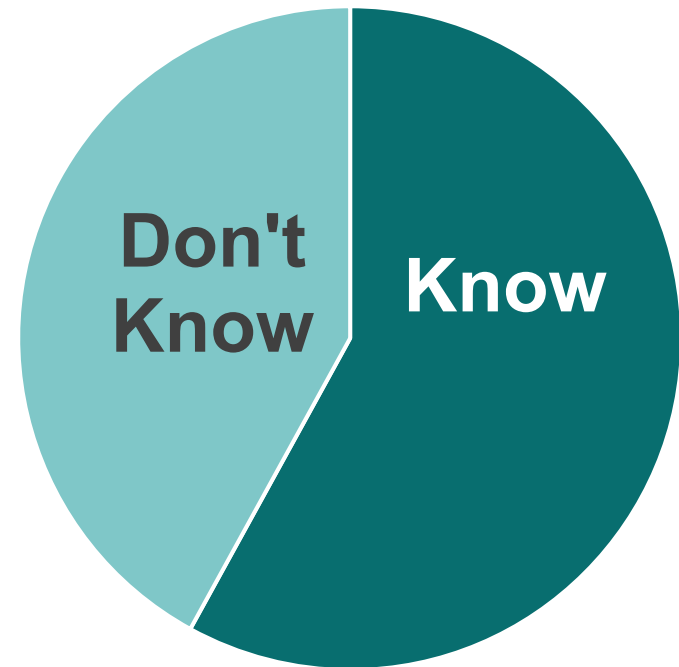


# Limitations of GPC

## Market Penetration



## User Awareness



# Icons

# CCPA Opt-outs

