# Research and Data for Regulation of Digital Markets

DMA AND BEYOND CONFERENCE

FEBRUARY 2025

Hunt Allcott

Stanford University

# A taxonomy of digital platform research, with examples

| | Experimental | Observational |
|---|---|---|
| **With platform** | • 2020 Facebook and Instagram Election Study<br>• Ad load (Meta: Brynjolffson et al., Pandora: Goli et al.)<br>• Ad effectiveness (eBay: Blake, Nosko, and Tadelis; Meta: Wernerfelt et al.)<br>• Uber price elasticities (Angrist, Caldwell, and Hall; Christensen and Osman) | • Click-and-query data (Allcott, Castillo, Gentzkow, Musolff, and Salz)<br>• Effects of ATT (Deisenroth et al.)<br>• Seller reputation (Nosko and Tadelis)<br>• Uber surge elasticities (Castillo) |
| **Independent** | • Pay people to reduce social media use (e.g., Allcott, Gentzkow, and Song) or switch to Bing (ACGMS)<br>• Randomize ad blocking (ACGMS, Chreyre et al.)<br>• Change news feed (Levy)<br>• Re-order search results (ACGMS, Farronato, Fradkin, MacKay)<br>• Test for racial discrimination (Edelman, Luca, and Svirsky; Ge et al.) | • Scrape Amazon search results (Yu)<br>• Use public data released by platform (Amazon pricing API, CrowdTangle, Meta Political Ad Library, Google Trends) |

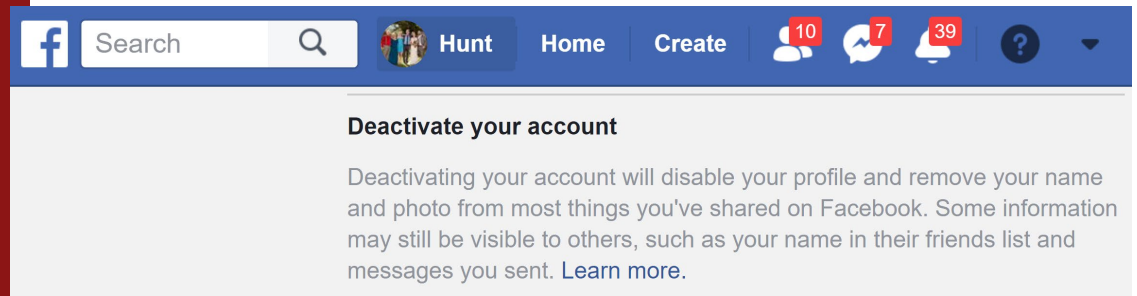
# 1. Important research is possible without collaboration from platforms

| | Experimental | Observational |
|---|---|---|
| **With platform** | • 2020 Facebook and Instagram Election Study<br>• Ad load (Meta: Brynjolffson et al., Pandora: Goli et al.)<br>• Ad effectiveness (eBay: Blake, Nosko, and Tadelis; Meta: Wernerfelt et al.)<br>• Uber price elasticities (Angrist, Caldwell, and Hall; Christensen and Osman) | • Click-and-query data (Allcott, Castillo, Gentzkow, Musolff, and Salz)<br>• Effects of ATT (Deisenroth et al.)<br>• Seller reputation (Nosko and Tadelis)<br>• Uber surge elasticities (Castillo) |
| **Independent** | • Pay people to reduce social media use (e.g., Allcott, Gentzkow, and Song) or switch to Bing (ACGMS)<br>• Randomize ad blocking (ACGMS, Chreyre et al.)<br>• Change news feed (Levy)<br>• Re-order search results (ACGMS, Farronato, Fradkin, MacKay)<br>• Test for racial discrimination (Edelman, Luca, and Svirsky; Ge et al.) | • Scrape Amazon search results (Yu)<br>• Use public data released by platform (Amazon pricing API, CrowdTangle, Meta Political Ad Library, Google Trends) |

# Example 1: The Welfare Effects of Social Media

## 1. Recruit with Facebook ads

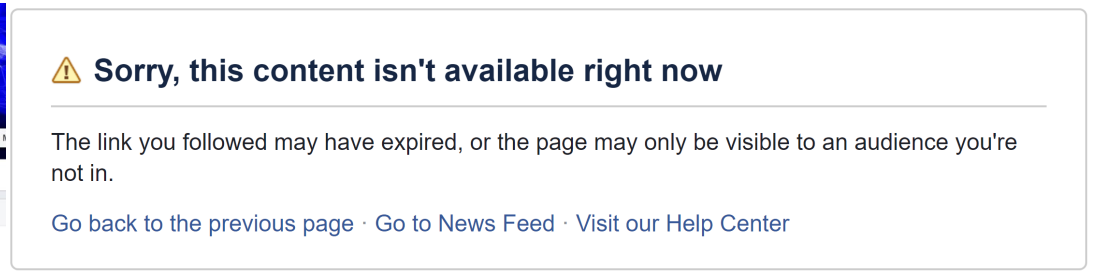
## 2. Pay people to deactivate



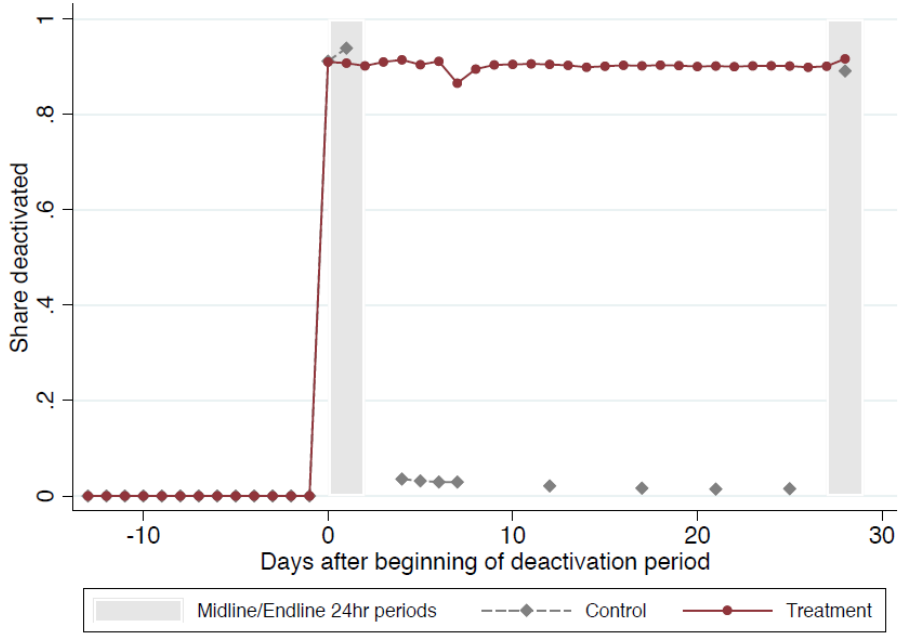

## 3. Automatically check if participants are deactivated or not

Homepage if active:

Homepage if deactivated:

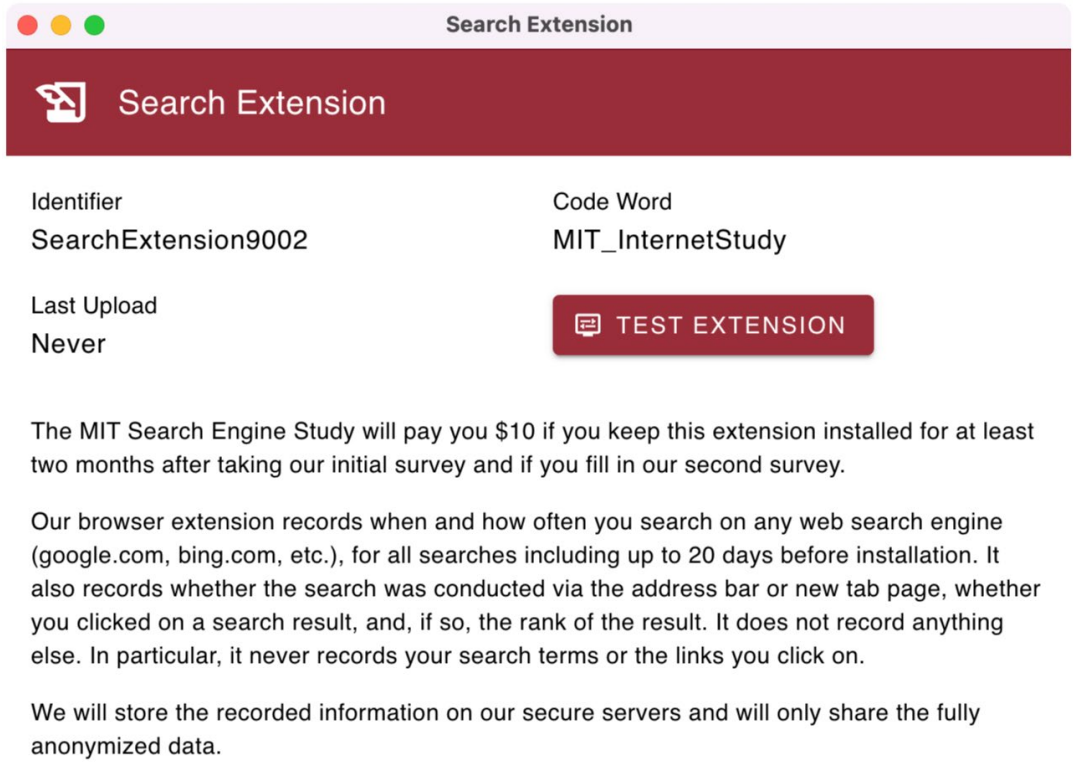



## 4. Measure effects

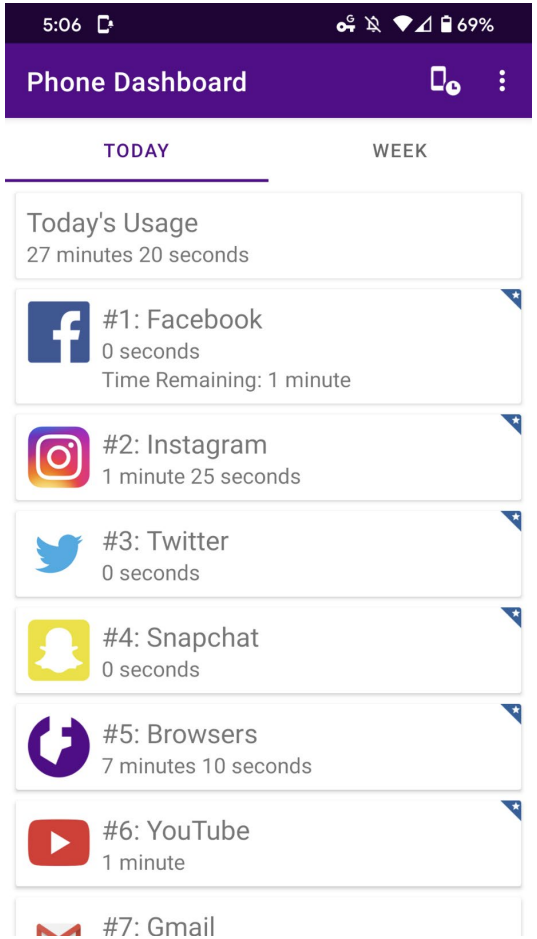


# Example 2: monitoring apps and browser extensions for research

- WebMunk (Farronato and Fradkin) and Search Extension (Allcott, Castillo, Gentzkow, Musolff, and Salz)




- Phone Dashboard (Allcott, Gentzkow, and Song)



# Example 3: scraped data

- Musolff (2024), Yu (2024), Moshes and Moshes, etc.

Roll over image to zoom in

Outsidepride Eschscholzia Orange California Poppy Seeds - 1 lb. Annual, Native, Drought Tolerant Wildflower Seeds w/Vibrant Blooms for Full Sun & Drought-Tolerant Pollinator-Friendly Gardens

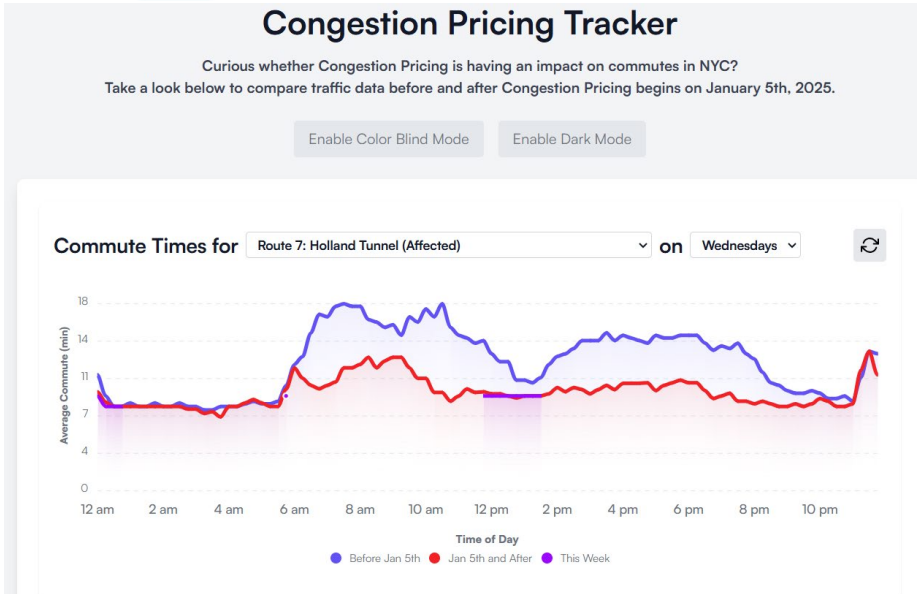
Visit the Outsidepride Store

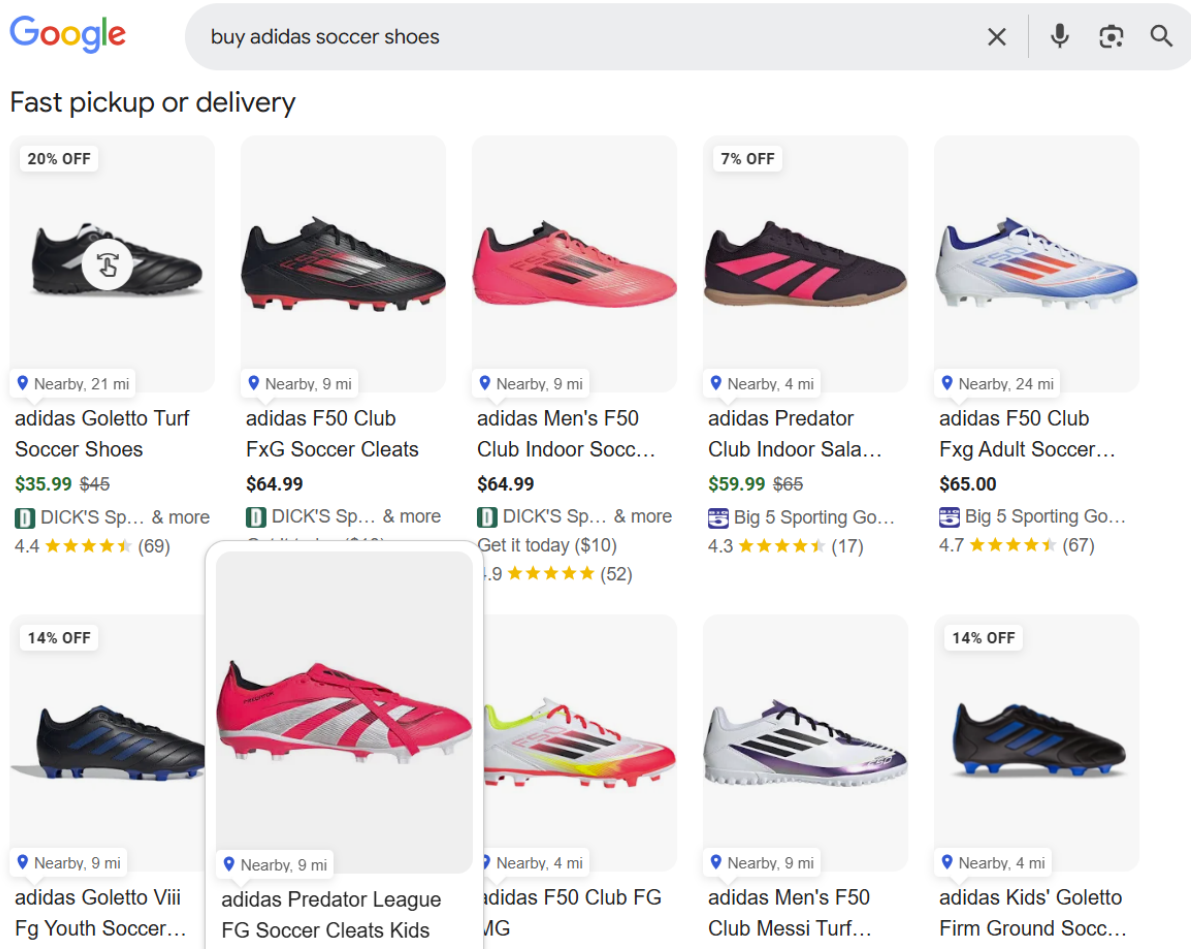
4.2 ★★★★☆ 1,599 ratings

Amazon's Choice Overall Pick

**400+ bought** in past month

$29.99 ($1.87 / Ounce)



# Example 4: third party data

newzoo

JungleScout

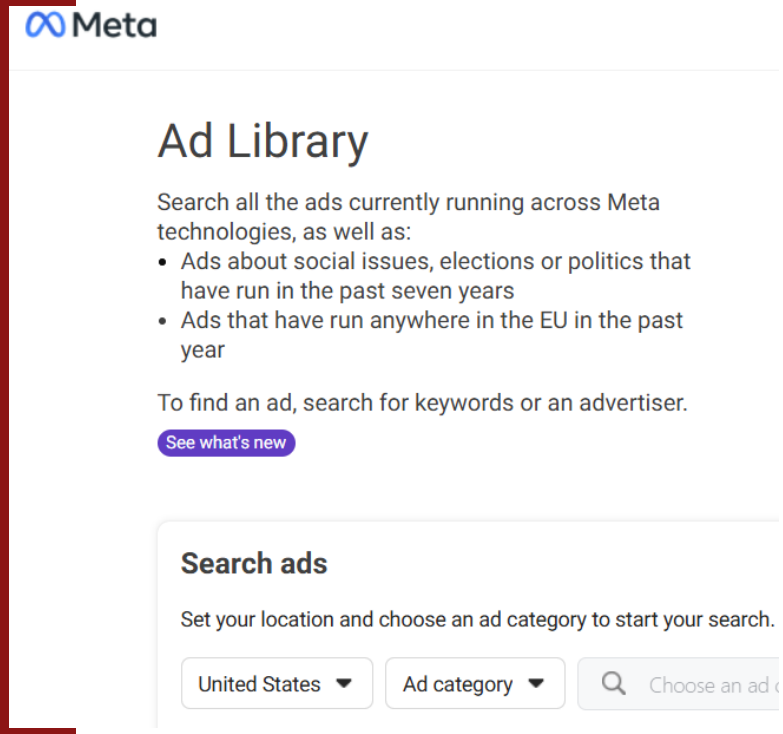
Amazon intelligence, **simplified**

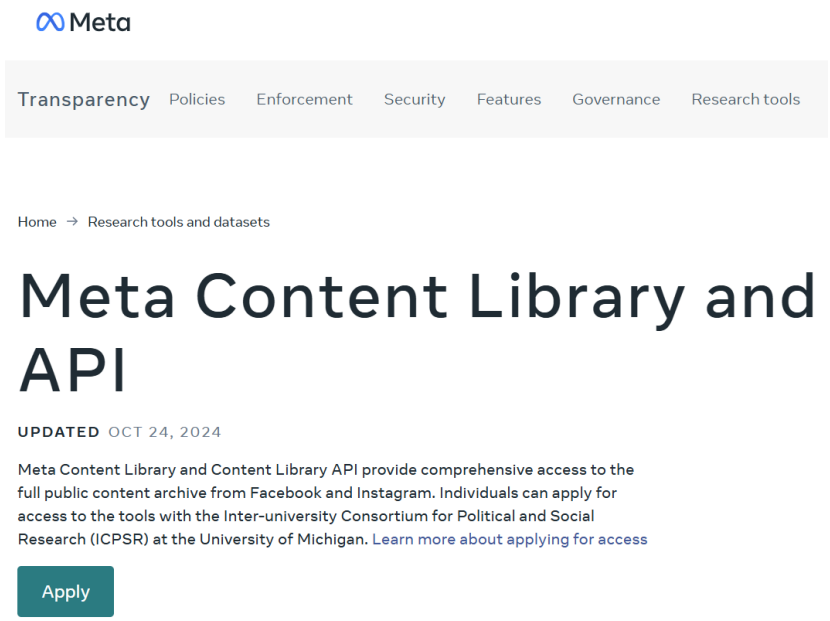
As a trusted data partner, we help sellers, brand owners, and enterprises uncover market dynamics, build stronger data models, and capitalize on opportunities. Our cutting-edge Competitive Intelligence tool is the only solution for Amazon businesses to benchmark their brand, understand how competitors are taking market share, and fuel the strategy to win it back.

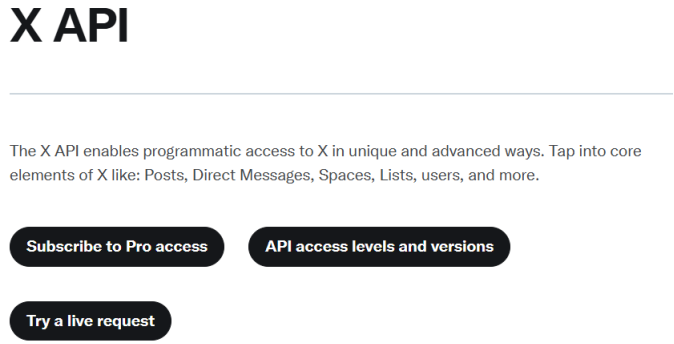
# 2. Could platforms make observational data more easily available?

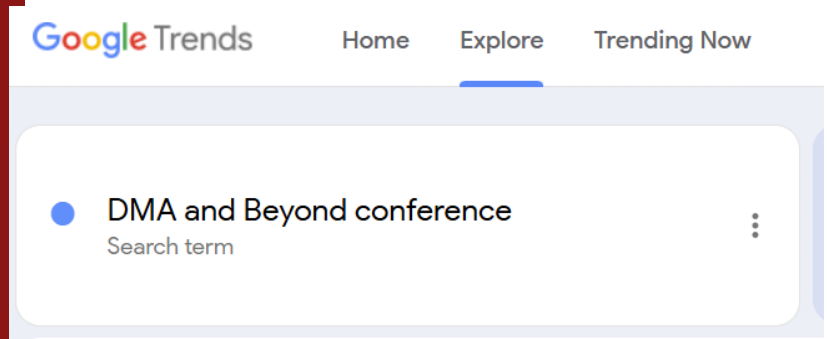
| | Experimental | Observational |
|---|---|---|
| **With platform** | • 2020 Facebook and Instagram Election Study<br>• Ad load (Meta: Brynjolffson et al., Pandora: Goli et al.)<br>• Ad effectiveness (eBay: Blake, Nosko, and Tadelis; Meta: Wernerfelt et al.)<br>• Uber price elasticities (Angrist, Caldwell, and Hall; Christensen and Osman) | • Click-and-query data (Allcott, Castillo, Gentzkow, Musolff, and Salz)<br>• Effects of ATT (Deisenroth et al.)<br>• Seller reputation (Nosko and Tadelis)<br>• Uber surge elasticities (Castillo) |
| **Independent** | • Pay people to reduce social media use (e.g., Allcott, Gentzkow, and Song) or switch to Bing (ACGMS)<br>• Randomize ad blocking (ACGMS, Chreyre et al.)<br>• Change news feed (Levy)<br>• Re-order search results (ACGMS, Farronato, Fradkin, MacKay)<br>• Test for racial discrimination (Edelman, Luca, and Svirsky; Ge et al.) | • Scrape Amazon search results (Yu)<br>• Use public data released by platform (Amazon pricing API, CrowdTangle, Meta Political Ad Library, Google Trends) |

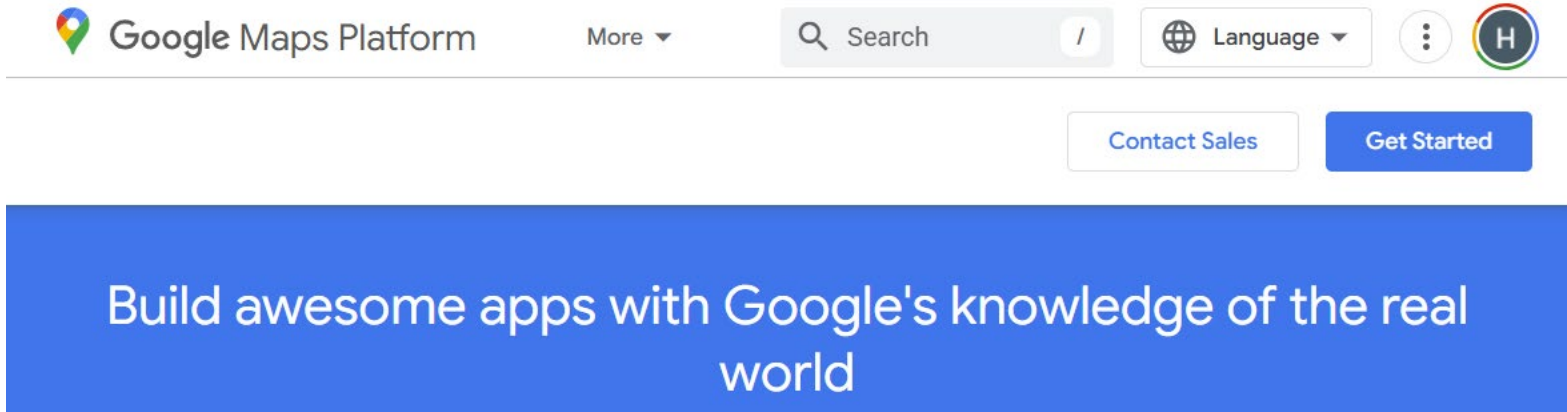
# Examples of platform data sharing



# 3. There are both opportunities and challenges in running experiments with platforms

| | Experimental | Observational |
|---|---|---|
| **With platform** | • 2020 Facebook and Instagram Election Study<br>• Ad load (Meta: Brynjolffson et al., Pandora: Goli et al.)<br>• Ad effectiveness (eBay: Blake, Nosko, and Tadelis; Meta: Wernerfelt et al.)<br>• Uber price elasticities (Angrist, Caldwell, and Hall; Christensen and Osman) | • Click-and-query data (Allcott, Castillo, Gentzkow, Musolff, and Salz)<br>• Effects of ATT (Deisenroth et al.)<br>• Seller reputation (Nosko and Tadelis)<br>• Uber surge elasticities (Castillo) |
| **Independent** | • Pay people to reduce social media use (e.g., Allcott, Gentzkow, and Song) or switch to Bing (ACGMS)<br>• Randomize ad blocking (ACGMS, Chreyre et al.)<br>• Change news feed (Levy)<br>• Re-order search results (ACGMS, Farronato, Fradkin, MacKay)<br>• Test for racial discrimination (Edelman, Luca, and Svirsky; Ge et al.) | • Scrape Amazon search results (Yu)<br>• Use public data released by platform (Amazon pricing API, CrowdTangle, Meta Political Ad Library, Google Trends) |

# Example: why experiments with platforms are valuable

Benefits of 2020 Facebook-Instagram Election Study collaboration with Meta, compared to earlier independent study (ABEG 2020)

1. Scale
2. Some internal data
3. Run experiments that can't be done independently: change algorithm, ad load, etc.

# Three keys to designing collaborations with platforms

1. Pre-analysis plan
2. Grant control rights to independent academic authors
3. Clear expectations about roles and timeline

# Challenge: what experiments will get run?

- Not clear how a regulator could mandate experiments
  - Who would participate?
  - True buy-in is important: resources for internal analyses, systems, and privacy approvals
- Thus, a selected set of experiments will be run

# Conclusion

# Takeaways

1. Important research is possible without collaboration from platforms
2. Could platforms make observational data more easily available?
3. There are both opportunities and challenges in running experiments with platforms