

ESTIMATING THE VALUE OF OFFSITE DATA TO ADVERTISERS ON META

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A large share of digital advertising today relies on data that are shared across applications

- E.g., website browsing behavior, online purchases
- Applies for advertisers on Meta, Twitter, TikTok, Snap, etc.

Regulation and product changes threaten advertisers' ability to use such data

- GDPR, CCPA, LGPD
- iOS 14.5, Google's cookie deprecation

Policy evaluation requires quantifying the value of this data in terms of advertising effectiveness

- Implications for advertisers, users, platforms

We measure the value of offsite data to advertisers on Meta

- Benchmark customer acquisition costs in current environment
- Quantify how advertisers' costs per incremental customer change when offsite data cannot be used

We implement a large-scale field experiment:

- We randomize ad exposure -> gold standard
- 70k advertisers in our sample, minimal selection -> results generalizable

- Experimental Design
- Sample
- Main Results
- Implications

Offsite Conversion Optimization

- Goal: deliver ads to users likely to take an off-Meta action (e.g. purchase on advertiser's website)

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Link Click Optimization

- Goal: deliver ads to users likely to click on the ad
- Lowest outcome in purchase funnel observed on platform
- Only uses onsite data

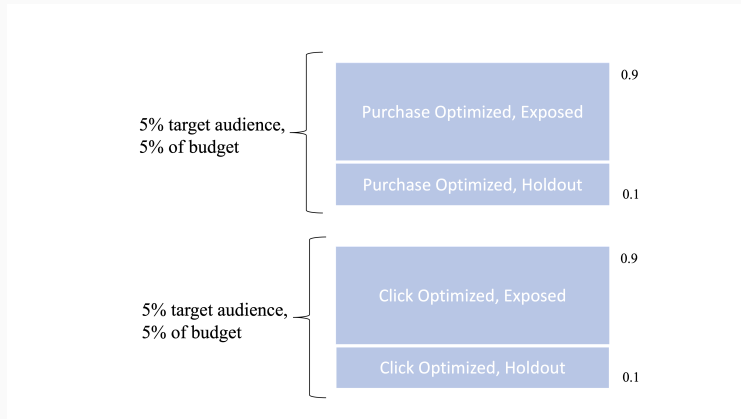
Take a large sample of advertisers who are optimizing for purchases

1. Measure how effective their offsite optimized ads are at generating incremental offsite conversions
2. Measure how effective onsite optimized ads are at generating incremental offsite conversions
 - **Note:** we still observe purchase outcomes, so we can compare cost per incremental customer across treatments.

Comparison provides estimate of the value of offsite data to ad delivery

EXPERIMENTAL DESIGN: RANDOMIZE OPTIMIZATION ALGORITHM AND EXPOSURE

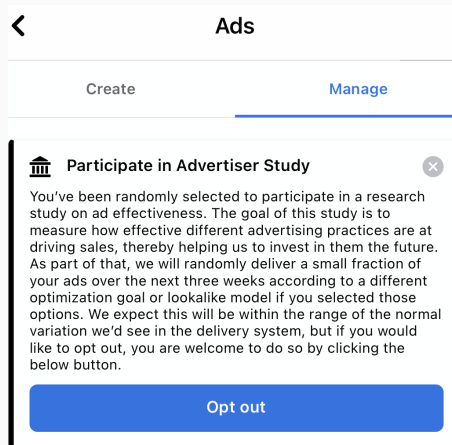
- Randomize 10% of traffic from all ads optimizing for a purchase event
- Holdout: focal ad withheld and second place ad sent



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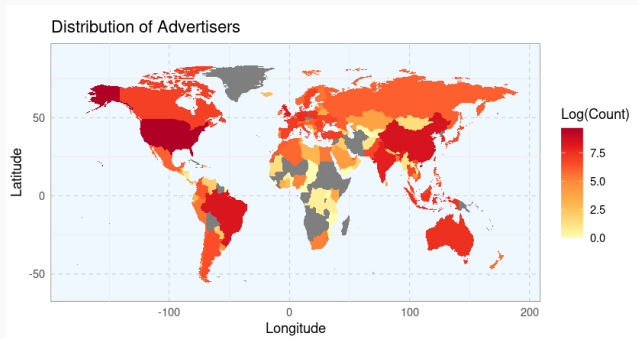
SAMPLE: NEAR UNIVERSE OF RELEVANT ADVERTISERS

- Sent opt-out notice to near universe of advertisers who used offsite conversion optimization in three months prior to experiment
- Vast majority (94%) did not opt out
- After cleaning, left with 70,909 experiments



SAMPLE: SPANS VERTICALS AND GEOGRAPHIES

- E-commerce (44%), Retail (19%), CPG (12%)
 - Within E-commerce, mostly apparel and household goods
- Advertisers from 161 countries
 - US (22%), China (7%), Brazil (6%), India (4%)



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Business as usual: Quantifying ad effectiveness when offsite data is available

- Median advertiser has cost per incremental converter of \$44
- Large differences across verticals:
 - CPG: \$53
 - E-commerce: \$37
 - Retail: \$28
- Estimates a bit higher than existing CAC benchmarks by vertical (those samples may be biased towards more sophisticated advertisers).

Link click optimization vs. offsite conversion optimization:

- Moving to onsite optimization, cost per incremental conversion increases 37% for the median advertiser, from \$44 to \$60
 - Median advertiser loses 6.2 incremental customers per \$1000
- Differences across verticals in average increase in cost:
 - CPG: 64%
 - E-commerce: 48%
 - Retail: 45%

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Our Findings:

- Offsite data especially valuable to small advertisers
- Small advertisers hurt 2x more by data loss

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- **Budget allocation across platforms**
 - For direct response, Apple/Google/Amazon still retain purchase data
- **Advertise where you can leverage purchase outcomes for optimization**
 - E.g., FB/IG Shops, related products across platforms
- **Adopt privacy-enhancing technologies**
 - Developing technology, starting to be offered
- **Speak up!**
 - Ecosystem is rapidly changing, policymakers have a key role to play

- Policy and product innovations are restricting firms from sharing data
- We estimate the value of offsite data to advertisers on Meta using a large-scale field experiment with a representative sample of 100k+ advertisers.
- Evidence ad effectiveness will decrease substantially under loss of offsite data
 - 37% increase in costs for median advertiser
- Restrictions on offsite data will harm smaller scale advertisers more
- Important to consider the effects of privacy initiatives on advertisers in addition to consumers.

THANK YOU!

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