Sponsorship Disclosure and Consumer Deception: Assessing Native Advertising in Mobile Search

Navdeep S. Sahni & Harikesh S. Nair Stanford University

September 2016

Media, Historically

- In the 19th century, most news media in US were owned by political parties
- Early 20th century, party sponsorship of news media gave way to professionally oriented journalism emphasizing the core norms of *objectivity* and *autonomy*
- To insulate themselves from external influences, media started accepting a greater reliance on advertising as the main revenue source
- To accommodate journalists' demands for autonomy while also making money for owners, publishers instituted a separation – a 'church-state division' – that editorial decisions be kept free from business ones
- Clear separation of content and advertising
 - a steadfast principle of media

Native Advertising: Blurring the Lines

- Separation increasingly blurred in digital media
- Native Advertising
 - advertising that matches the form, style and layout of the media content into which it is integrated
- Proliferating
 - Reports in the trade-press suggest that US spending on such native ads may grow as high as \$21 billion in 2018, rising from just \$4.7 billion in 2013
 - Especially on mobile platforms

Policy Concern

- Main regulator concern is deception
 - Consumers are harmed when the commercial nature of content is not properly disclosed
- Under section 5 of the US Federal Trade Commission act, an action or practice is deceptive if its "likely to mislead consumers who are acting reasonably under the circumstances," and if it would be "material to their decision to buy or use the product."
- The FTC judges a misrepresentation as *material* if it is likely to affect consumers choices or conduct regarding an advertised product or the advertising for the product, irrespective of the medium

Paid-Search

• On account of the large contribution of paid-search to digital advertising revenues, concerns about deception in this market can have significant impact

New Regulations in the US: Dec 2015

• FTC stipulates any disclosure used must be sufficiently prominent and unambiguous to change the apparent meaning of the claims and to leave an accurate impression to the exposed consumer

Digital Advertising Industry Response

• The digital advertising industry has expressed skepticism about government intervention in the "creative process", and feels that current levels of self-regulation and disclosure are sufficient.

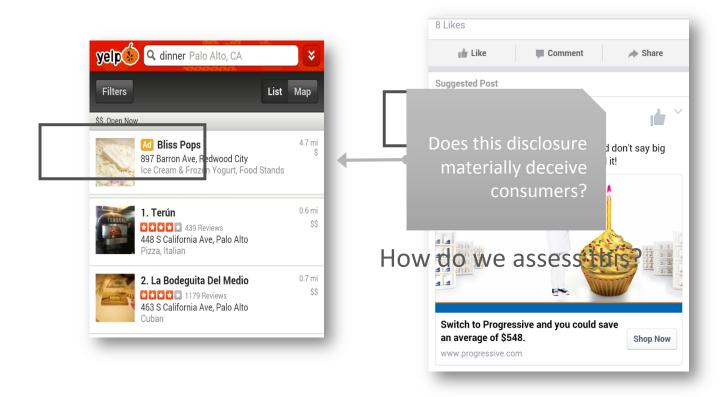
"While guidance serves great benefit to industry, it must also be technically feasible, creatively relevant, and not stifle innovation. To that end, we have reservations about some elements of the Commission's Guidance. In particular, the section on 'clarity of meaning' in native advertising disclosures is overly prescriptive, especially absent any compelling evidence to justify some terms over others."

Brad Weltman, Vice President of Public Policy, IAB

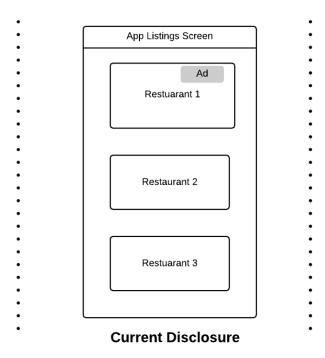
This Paper

- Does native advertising work?
- Present a new experimental design to assess deception based on revealed preference arguments
- Assess both for paid-search ads using a large-scale field-experiment implemented on a restaurant-search platform

Mobile "Native" Ad-Units and Sponsorship Disclosure



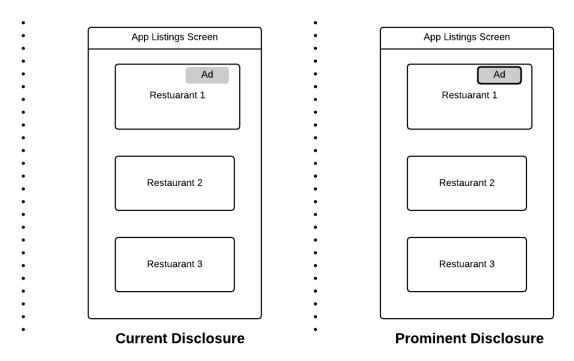
Question: Is this Deceptive?



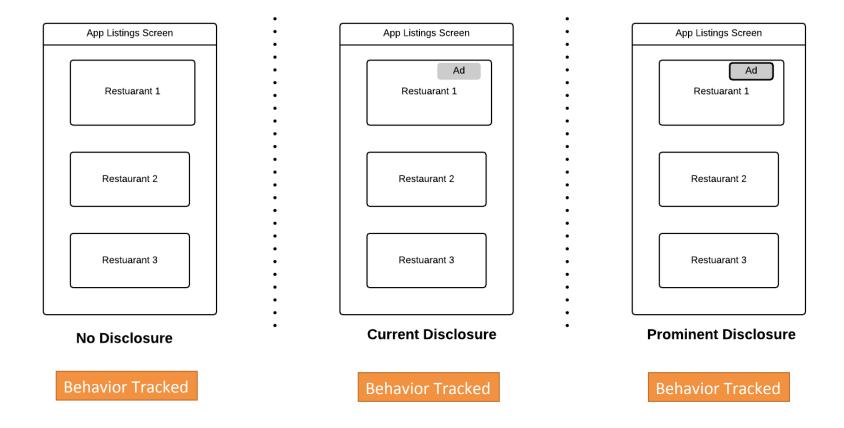
Existing Approach has Significant Drawbacks

- In-lab or questionnaire based, focused on ex-post survey with recall
 - In-lab may not adequately capture the actual nature of deliberate consumer response to information in real-world settings, where the use of the information leads to consequential choices
 - Surveys have issues with priming "deception" and imperfect recall
- Not aware of academic work on assessing native advertising in-field or for testing for deception based on revealed preference

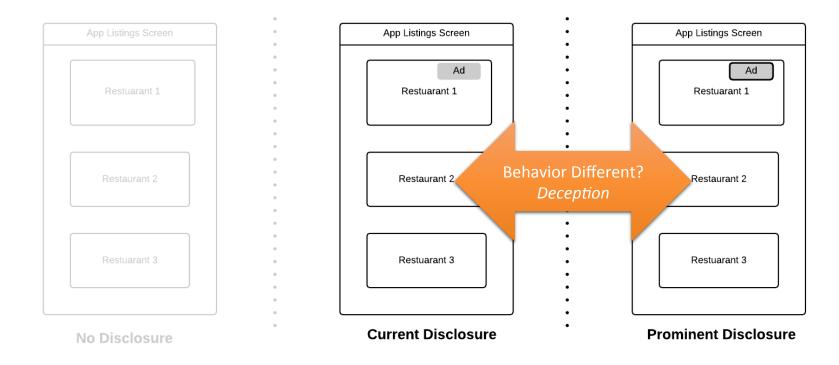
A Design for Assessing Deception



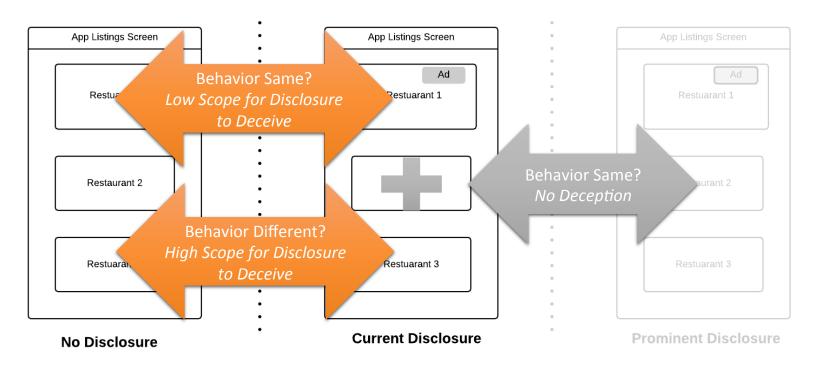
Compare Current Practice To Two Extreme Worlds



Compare Current Practice To Two Extreme Worlds

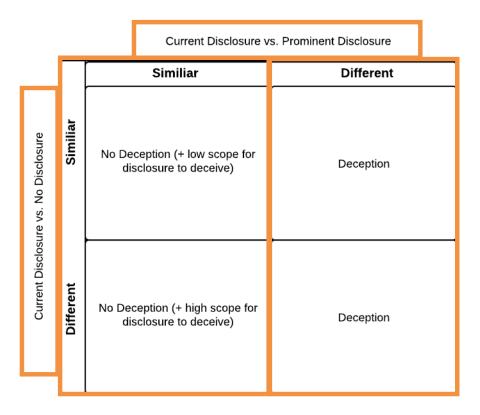


Compare Current Practice To Two Extreme Worlds



Advantage: no need to "ask" consumers anything Based on "revealed preference" alone

Summary of Design for Assessing Deception



Empirical Setting: Restaurant Search App

Zomato: One of the largest restaurant search platforms worldwide

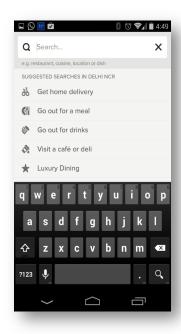
- Zomato 2014 (2015) stats
 - 19 countries (22 after 2015 acquisition of UrbanSpoon)
 - 300K restaurants (1M 2015)
 - 30M monthly visits (80M 2015)
- Setting
 - Advertising sold on website
 - Engages *thousands* of advertisers
 - No mobile advertising pre-experiment
 - Aug 2014 we go in and implement mobile advertising

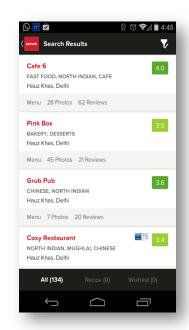


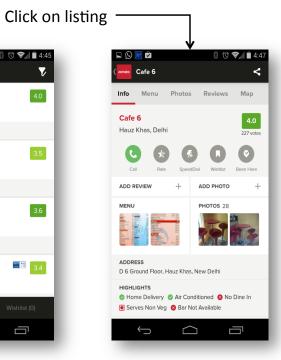
Users Search for Restaurants in Specific Locations

Example Search Session on Mobile





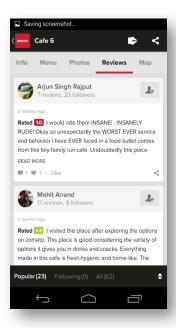


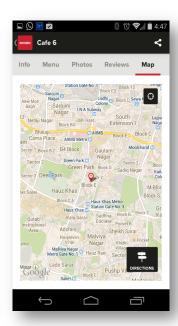


Users Gather Detailed Information about Restaurants Example Restaurant Information





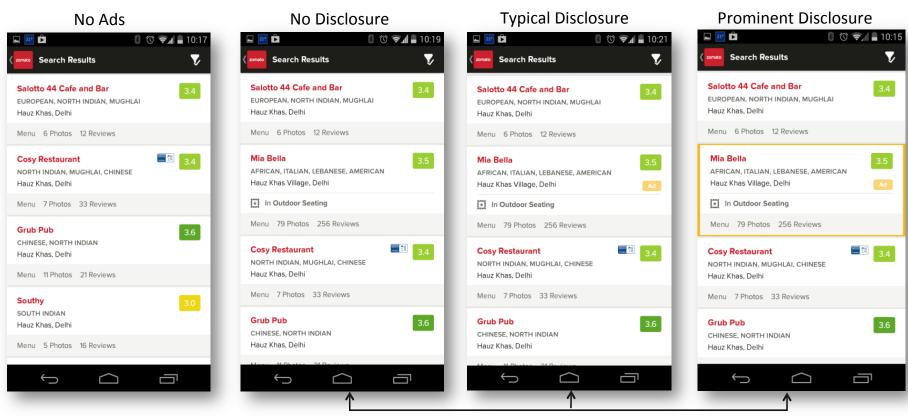




Our Experiment Starts with a New App Update

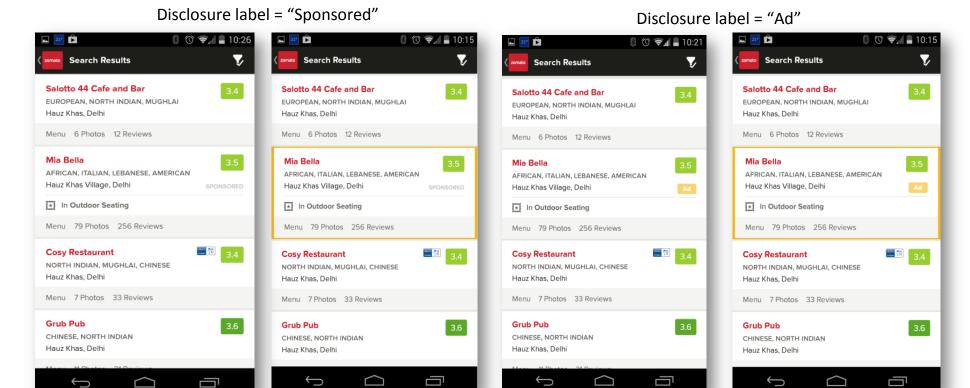
- Experiment coded into an update of the Zomato app on the Android app store
- Any user who downloads the app is potentially in our experiment (and stays in it till the next app update)
- Unit of randomization is at the user/login level
 - Persistent treatment across time

Experimental Conditions for Testing Deception



Advertiser order, position, content exactly same

Changing the Disclosure Label



Advertiser order, position, content exactly same

Experiment Design: Summary

- Experimentally vary the disclosure of the ad
- Platform-wide experiment
 - Across many locations (321)
 - Across many advertisers (622)
- Large-scale in terms of variety of advertisers participating in it

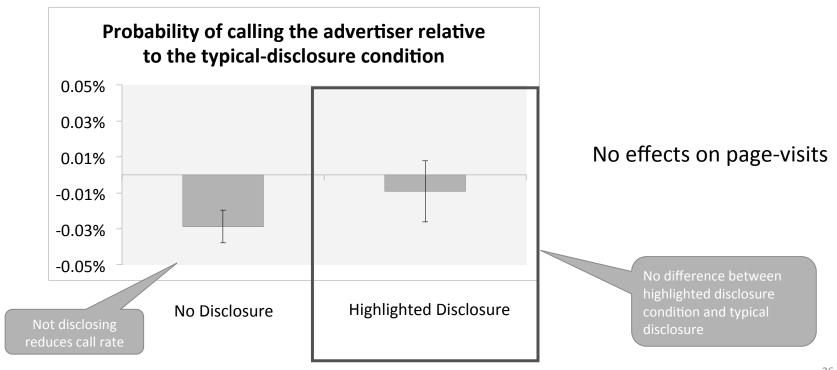
Results

• Based on first-searches with ad-exposure

Common Concerns about Native Ads

- Consumers do not notice enough the sponsorship disclosures of native ads, and thus are tricked into clicking on them
- Consumers are **confused** by the text of the sponsorship disclosures of native ads, and thus are tricked into clicking on them
- Once consumers click on an ad, that leads them onto a causal chain to purchase, because consumers are "inertial" or have high "searchcosts"

Comparing Typical to Two Extreme Worlds



Signaling Explains Why Conversion is Higher under Disclosure

- Companion paper documents that advertising serves as signaling device in this market
 - **Supply-side**: Advertisers that are newer to the market; have higher ratings; and higher prices on average advertise more
 - **Consumer heterogeneity**: Increase due to disclosure higher for consumers with higher uncertainty about restaurant appeal
 - **Restaurant heterogeneity**: Increase due to disclosure higher for restaurants about whom consumers have higher uncertainty about restaurant appeal

Conclusion About Current Paid-Search Disclosure Regime

Current Disclosure vs. Prominent Disclosure

No Deception (+ low scope for disclosure to deceive)

No Deception

No Deception (+ high scope for disclosure to deceive)

Deception

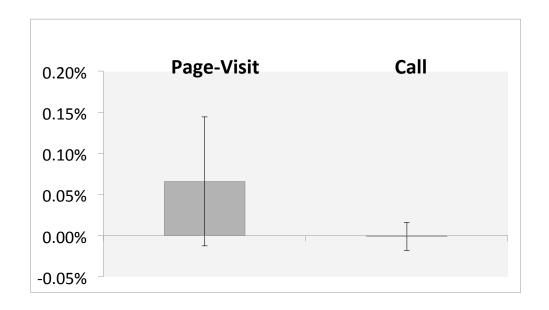
Deception

Common Concerns about Native Ads

- Consumers do not **notice** enough the sponsorship disclosures of native ads, and thus are tricked into clicking on them
- Consumers are **confused** by the text of the sponsorship disclosures of native ads, and thus are tricked into clicking on them
- Once consumers click on an ad, that leads them onto a causal chain to purchase, because consumers are "inertial" or have high "searchcosts"

Comparing Labels: "Sponsored" vs. "Ad"

Page-Visit and Call Probability under "Sponsored" relative to under "Ad" label



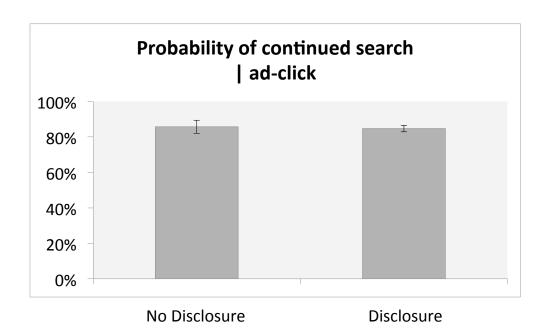
No difference between "sponsored" and "ad" label conditions

Common Concerns about Native Ads

- Consumers do not **notice** enough the sponsorship disclosures of native ads, and thus are tricked into clicking on them
- Consumers are **confused** by the text of the sponsorship disclosures of native ads, and thus are tricked into clicking on them
- Once consumers click on an ad, that leads them onto a causal chain to purchase, because they "stick with their click"
 - Inertia, high "search-costs"

Users who Click on Ads are not "Stuck"

Probability of continued search given a page-visit following an ad-click



About 85% chance of continued search after clicking on ad and visiting the advertiser's page

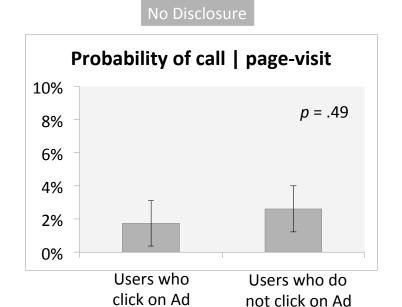
Number of listings browsed past before calling an advertiser

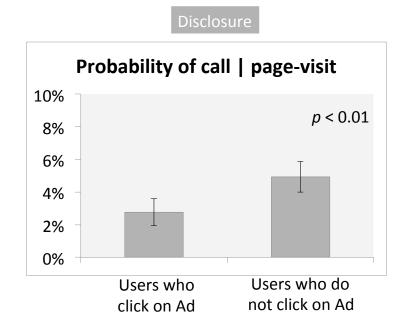
54

69

Where Does Uptick in Calls Under Disclosure Come From?

Users who see ads continue search, and then call advertiser after thoughtful deliberation





Much of the improved conversion is coming from users who see, but don't click on the ad

Take Away

- Little evidence of consumer naiveté or lock-in or inertia conditional on clicking
 - Significant search after clicking on ads
 - The notion that native ads trick consumers into clicking, and thus harm them because those consumers "stick with their click" has little support in these data
- No detectible evidence of material deception
 - Choices look similar to a world with "full information"
- Ads seem to work on the basis of exposure: Much of lift from ads arise from those that see but not necessarily click on the ads
 - Clicks likely a poor way to evaluate mobile advertising efficacy

How do Overall Calls Change with Disclosure?

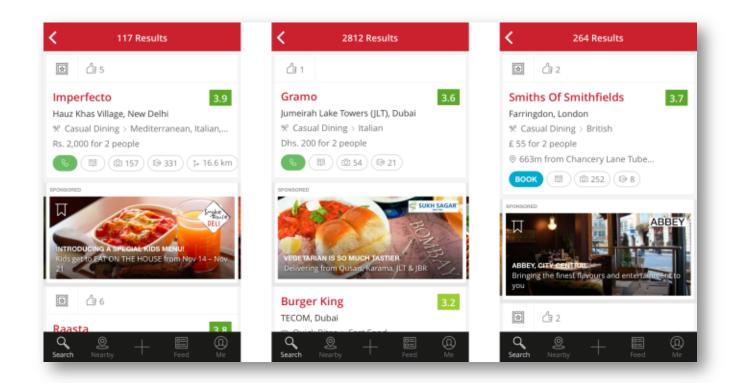
Take all restaurants (roughly 10K, not just advertisers), regress total calls received on disclosure condition dummies and interactions between dummies and restaurant characteristics

- No difference between typical and highlighted disclosure conditions
 - No deception replication
- Without disclosure, consumers would have gone to restaurants with more and worse ratings
 - Disclosure benefits consumers
- No deception finding does not seem to be driven by lack of power

Punchline

- Although this analysis cannot speak directly to consumer welfare, it shows that the consumer actions do not change materially when the ads are made more prominent, suggesting that the concern for welfare losses from current disclosure standards in paid-search may be minimal
- Further, advertising seems to benefit consumers (signaling appeal)

Post-Experiment Disclosure Implementation @ Zomato



Conclusions

- Revealing that content is sponsored is a good idea for the platform and the advertiser
 - The incentives of the platform, advertisers and the regulators are aligned
- No deception finding
 - More research required before extrapolating into other settings
 - But, need to rethink somewhat prevalent default presumption that consumers are "easily fooled"

Thank you! Comments are welcome.

Choosing the Experimental Advertisers Experimental advertisers *chose* to advertise on Zomato

- We pick restaurant who advertised on the website
 - Restaurants buy ads on Zomato.com for search criteria
 - (Location x Search Category x Day x Position)
 - Ads are local 5mi x 5mi area within a city
 - Category home delivery, eating out, nightlife
- When a mobile user searches by criteria desired by an advertiser, the advertisers' ads are shown on the app

How do Overall Calls Change with Disclosure?

	Dependent measure: Number of calls to the restaurant		
	Coefficient	Std. Error	p-value
Ads - $Highlighted \times Rating$	-0.001	0.003	0.79
Ads -Highlight $ed \times Number$ of Ratings	0.002	0.003	0.59
Ads - $Highlighted \times Price Index$	-0.004	0.003	0.13
Ads -No-Disclosure \times Rating	-0.008	0.004	0.04
Ads-No-Disclosure × Number of Ratings	0.009	0.004	0.05
Ads -No-Disclosure \times Price Index	0.004	0.003	0.25
Ads-No-Disclosure	-0.034	0.026	0.19
Ads-Highlighted	0.022	0.021	0.30
Intercept	0.403	0.004	< 0.01
Fixed effect for each restaurant?	Yes		
Number of restaurants	10,843		
Number of observations	10,843×5		

All restaurants (not just advertisers) with at least 1 call included Dependent variable: Number of calls
All observations in 5 ad-conditions, typical Disclosure is "base"
Characteristics coded as within-market deciles
SE clustered at restaurant-level

- No difference between typical and highlighted disclosure conditions
 - No deception replication
- 2. Without disclosure, consumers would have gone to restaurants with more (and worse) ratings
 - Disclosure benefits consumers
- 3. No deception finding does not seem to be driven by lack of power