

A BROAD AND MULTIFACETED EXAMINATION OF ADVERTISING IN NEWS
ON AD PERFORMANCE

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DISSERTATION ABSTRACT

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Advertising media planners worry that the negative content in news media creates an inhospitable advertising context. The present research investigates if this concern is well founded. I find that advertisements placed in news media can actually outperform advertisements placed in entertainment media (e.g., dramas, comedies, sports, etc.) because news media attracts audiences in a mental state that is more receptive to advertisements' informational content. This advantage is fragile, however. Upsetting news can spoil the audiences' information appetite, their eagerness to consume and readiness to digest information. Analysis of Nielsen television viewership data for the weeks surrounding the 2016 United States Presidential Election merged with Google Trends search activity data for advertised brands reveals effects of brand advertisement viewership on brand search that are consistent with these propositions. Advertising viewership effect sizes are the smallest for ads on entertainment media, especially around the election, presumably because entertainment viewers sought to escape, rather than consume, information. The relatively more positive advertising effects on news disappeared around the election for liberal news channels, presumably because shocking election results ruined Democrats' information appetite. Two preregistered controlled studies bolster confidence in these interpretations and inform the advertising and news industries' partnership. A series of

theory-in-use based interviews affirms the opportunities news provides as an advertising context and highlights the potential negative consequences of news avoidance strategies. These findings support of the importance of understanding news as advertising context with implications for advertisers, news publishers and providers, and consumers.

This dissertation includes previously unpublished co-authored material.

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To my family, for teaching me to love learning, for loving me unconditionally,
and for being there every step of the way.
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TABLE OF CONTENTS

LIST OF FIGURES	10
LIST OF TABLES	11
INTRODUCTION	12
THE EFFECTIVENESS OF ADVERTISING IN NEWS MEDIA	14
The Advertising Context Effects Literature	18
A Theory of Information Appetite Driving Advertisement Effectiveness	22
Conceptual Model and Hypotheses	24
Empirical Overview	26
Study 1: Real World Effects of Ad Viewership Context on Interest in the Advertised Brand	28
Study 2: Verifying the Assumptions Underlying the Interpretation of Study 1	38
Study 2a	39
Study 2b	42
General Discussion	54
Appendix.....	50
A QUALITATIVE INVESTIGATION OF CONTEXTUAL ADVERTISING AND NEWS	51
Common Themes	52
Contextual Targeting as an Alternative to Identity-Based Targeting	55
News Aligned with Brand Values.....	57
The Importance of News quality with the Proliferation of User-Generated Content	58
Brand Safety Concerns	60

REFERENCES66

LIST OF FIGURES

Conceptual Model and Overview of Research on Information Appetite Underlying Ad Performance Across Media Contexts.....	27
The Effect of Advertising Viewership Impressions from News and Entertainment Media on Interest in the Advertised Brand	37
Conceptual Model of Information Appetite with Results from Study 2a and 2b	39

LIST OF TABLES

Relevant Empirical Research on Media Context effects in Advertising19

Google Trends Sample Information.....30

Review of TV Advertising Research Examining Google-Search Related Outcomes32

Estimation Results: Effects of Advertising Impressions by Media Context on Interest in the
Advertised Brand36

Effect of Information Appetite on Media Selection and Interest in the Advertised Brand42

Participant Demographics and Advertising Industry Experience51

INTRODUCTION

Many advertisers avoid news as a context despite growing news audiences in recent years. News media executives warn that losing this advertising revenue impairs their ability to provide timely and quality coverage. In light of this tension, this research is motivated by the question: how does advertising near news content impact ad performance? Despite the widespread implementation of news avoidance strategies, these practices are not supported or sufficiently examined in the academic literature which motivates our novel approach to examining context effects. Existing advertising strategies perpetuating news avoidance have material consequences for three stakeholders. First, brands seeking to maximize their advertising investment, second, news platforms that heavily depend on advertising revenue; and lastly, consumers who benefit from reliable news coverage about notable events and recent developments which is critical for fostering a society of informed and engaged global citizens.

Advertisers' concerns resulting in avoiding specific categories of content, typically those which are illicit, negative, or violent, reflect three types of concerns. The first is potential negative affect spillover where the viewer's negative or emotionally laden attitude toward the content will transfer to the advertiser—in other words, their mood or attitude towards the content will overwhelm all content on the page, including the advertising brands. The second concern is the potential of establishing unwanted associations between the content and the brand. The last concern, the focus of this dissertation, is that the news context results in suboptimal ad performance compared to other media genres.

The present research provides an empirical examination of news (vs entertainment) advertising performance to inform advertising and media executives on the performance implications of avoiding news content. Situated within the extensive stream of literature on

context effects for advertising performance (Yi 1993), we take a novel approach which suggests that the content itself should be a second order consideration to the consumers choice of media.

In the remaining sections of this dissertation, I first provide an overview of the context effects literature to establish a conceptual framework of one mental state which affects both the types of media consumers select to watch as well as ad performance, consumers' information appetite. Using real-world secondary data from Nielsen and Google Trends, I then compare the effect of advertising on news versus entertainment media on search activity for advertised brands and interpret the results consistent with the information-appetite-centered conceptual framework. I then test the assumptions underlying the interpretations using two controlled studies, which provide additional support for the explanation of the effects observed. This portion which was coauthored with Conor Henderson, John Clithero, and Marc Mazodier was submitted to the *Journal of Marketing* in early June. After identifying the managerial implications and limitations of the first empirical investigation, I use theory-in-use style interviews to understand practitioners' concerns related to advertising in news and avenues for future research.

THE EFFECTIVENESS OF ADVERTISING IN NEWS MEDIA

Co-authored material (with Conor Henderson, John Clithero, and Marc Mazodier) submitted to the *Journal of Marketing*.

Negative news sells. Right? In the 1890s, newspaper magnate William Randolph Hearst famously utilized the “if it bleeds, it leads” editorial strategy to win readership market share (Miller 2021). While negative headlines might help sell newspapers, advertisers worry that the negativity in news media harms the performance of their ads. The New York Times estimated that advertisers’ newly found capability to blacklist news content in programmatic internet ad auctions, a practice that accelerated in 2020, contributed to a 15 percent decline in ad revenue despite 30 percent audience growth (Slefo 2020).

News organizations and journalism advocates responded to advertiser flight with warnings of the potential societal consequences of a weaker news industry. For example, British news organizations launched the #BackDontBlock campaign after the British news industry was projected to lose over \$60 million in 2020 due to advertiser flight from news to entertainment media alternatives (Newsworks 2020). Advertisers may weigh the news industry’s appeals to societal concerns against their pragmatic business concerns, but to what extent are the assumptions underlying the pragmatic business concerns well-founded? The primary objective of the present research is to offer a rigorous investigation of the assumption that advertising in news media is less effective than advertising in entertainment media.

Our investigation adopts a broader conceptual orientation compared to the extant research on advertising media context. Typically, advertising media context research focuses on how exposure to content with specific characteristics changes how the adjacent advertisements are received (Kwon et al. 2021). This represents the advertising industry’s concern that exposure to

negative content puts audience members in a mental state that is inhospitable for advertisement performance. While we consider this *mental-state alteration* possibility, we also consider how content with specific characteristics might attract audiences of certain mental states. We also consider that these mental states may be more hospitable for positively receiving advertisements' messages. Consideration of news media's *mental-state attraction* possibility underlies our first major contribution. We posit that media audience members' information appetite—their eagerness to consume and readiness to digest information—independently drives both an enhanced likelihood to select news media content over entertainment alternatives and an enhanced receptivity of advertisements' informational content. We employ the appetite metaphor because, like an appetite for food, we theorize that an information appetite varies across people and within people over time and circumstance, and is subject to being lost (e.g., when one becomes upset). Accordingly, our secondary and tertiary research objectives are to understand the role of information appetite in both (a) contributing to an apparent advertising advantage for news media and (b) explaining how negativity in the news can decrease advertising performance.

Our consideration of news media on mental-state attraction as well as mental-state alteration has practical and empirical implications. Typically, researchers aim to isolate confounds from self-selection bias. In the case of estimating the impact of media context on advertisement effectiveness, most research aims to eliminate the impact of media selection by randomly assigning study participants to consume certain media contexts. While this helps test for causal effects of media context on ad performance due to mental-state alteration, it eliminates the opportunity to assess the effects of media context on ad performance due to mental-state attraction. In the present research, instead of trying to eliminate the endogeneity of advertising media context effects due to media context self-selection, we lean into understanding the drivers

of media context selection. Conceptualizing information appetite as a driver of media context selection and a driver of ad performance represents our major theoretical contribution to the advertising media context literature.

In our first study, we analyze Nielsen television viewership data for the weeks surrounding the 2016 United States presidential election merged with search data from Google Trends for advertised brands to estimate the effects of brand advertisement viewership on brand search activity. The estimates are based on 97,242 observations of daily brand search activity and brand advertisement viewership for 1,706 advertised brands over 57 days. We use the extraordinary occurrence of the election as an event that helps inform our theoretical understanding of ordinary advertising media context effects. We analyze how baseline ad performance fluctuates during the coverage of the election results by media context type and source. We find larger positive effects for advertisements in the news than in entertainment channels. Furthermore, the positive effect of advertisements in entertainment is completely eliminated (i.e., not distinguishable from zero) during the coverage of the election results. We interpret this result as evidence that entertainment media is most likely selected by viewers who are experiencing a very low information appetite, seeking escapism or distraction, which is especially the case for those who chose to watch something other than the election results. We also find that the positive baseline effects for liberal-leaning news channels (e.g., CNN, MSNBC) were eliminated during coverage of the election results and interpret this as due to a loss of information appetite for viewers who were emotionally upset by Donald Trump's electoral victory.

We offer two complementary controlled studies with an online panel of subjects to strengthen our confidence in our theoretical model and interpretations of the effects observed in

our first study. In both of these studies, we measure information appetite with a survey and separately show how (Study 2a) it predicts media context choice (i.e., news vs. entertainment) and advertisement performance (i.e., interest in an advertised brand) regardless of the media context in which the ad appeared (Study 2b). In both studies, mood predicts information appetite, which is consistent with the concern that negativity could harm ad performance because upsetting the audience could cause them to lose their information appetite. Together, the set of findings guide our managerial contributions to the news and advertising industries. Since information appetite is beneficial for advertisers and disproportionately found among news audience viewers, advertisers have pragmatic justification for advertising on news media and supporting journalism. However, they should ask their news media partners to minimize sensationalizing or overemphasizing negative content. A 2021 Freakonomics podcast episode documented a strong negativity bias in U.S. news media that many news media professionals and journalists lament but feel obligated to provide due to competitive pressures (Dubner 2021). The results of this research could justify a collective shift away from exaggerated negativity if increased advertising support buoyed the news media's courage to soften their attachment to the "if it bleeds, it leads" mantra.

The remainder of this article is organized as follows. First, we review the existing literature on advertising media context on advertising performance. Then, we develop the information appetite construct and our conceptual model. Next, we detail our empirical package, the methodology and results of our large-scale secondary dataset (Study 1), and our two complimentary controlled studies (Studies 2a and 2b). Our general discussion summarizes the theoretical, methodological, and practical contributions. Finally, we conclude with the limitations

of our work, most notably that we focus on advertising as information without considering other advertising objectives, and ways these limitations can guide further research.

The Advertising Context Effects Literature

The present research is situated in the advertising media context literature stream. Table 1 compares our research to representative papers of different approaches to studying advertising media context effects. De Pelsmacker, Geuens, and Anckaert's (2002) advertisement attention and processing framework identifies the advertising media context as one of four categories of explanatory factors; the other three factors are the characteristics of the ad, characteristics of the person, and situational factors. Researchers have long been studying the media context in which an ad appears in order to better understand the attitudinal and behavioral outcomes of advertising (Yi 1993). This literature defines media context as "the entire media environment in which an ad is placed and audiences encounter before, during, or after ad exposure" (Kwon et al. 2021, p. 330). With the rapid advancement of ad placement technology, brands have greater direct control over the media context in which their ads appear.

TABLE 1
Relevant Empirical Research on Advertising Media Context

Paper	Media Context Effects Theories		Data Sources		Relevant Findings
	Media context attracts audiences in mental states which impacts ad performance	Media context alters audiences mental states which impacts ad performance	Real World Observational Data	Controlled Study	
Dahlén, Rosengren, Törn, and Öhman (2008)	—	✓	—	✓	Placing ads in thematically incongruent media enhances ad processing, which in turn enhances ad evaluations and existing brand associations, by challenging expectations.
Kent, Mosley, and Schweidel (2019)	—	—	✓	—	Dramas have the highest rate of advertisement viewing when content is recorded DVR which allows fast forwarding.
Malthouse, Calder, and Tamhane (2007)	—	—	—	✓	Survey measures for 36 out of 39 types of magazine reading experiences predict attitude towards a hypothetical ad that might appear in the magazine evaluated by the survey respondent.
Mathur and Chattopadhyay (1991)	—	✓	—	✓	Happy TV programs elicit proportionately more happy cognitive responses compared to sad programs.
Schweidel and Kent (2010)	—	—	✓	—	Actual advertisement viewership is highest for ads in popular dramas and lowest for ads in reality TV.
Tipps, Berger, and Weinberg (2006)	—	✓	—	✓	Higher involvement with media content leads to more favorable perceptions of embedded ads and the advertised brand, but does not predict ad recall.
Our Study	✓	✓	✓	✓	Ads in news (vs entertainment) are more effective because news attracts audiences with a higher information appetite. Information appetite predicts interest in advertisements content. However, upsetting, negative news can put viewers in a worse mood which is bad for information appetite and therefore bad for ad performance.

In a meta-analysis of advertising media context, Kwon and colleagues (2021) highlight the three dominant theories of media context effects: assimilative theories, compensatory/contrastive theories, and congruity theories. Assimilative theories include affect transfer, evaluative conditioning (De Houwer, Thomas, and Baeyens 2001), the excitation transfer paradigm (Zillmann 1971), and the carryover effect (Krugman 1983). These assimilative theories predict that the viewers' responses to the media content transfer to adjacent advertisements. Early media context research found that commercials are preferred when they appear after happy television programs (Goldberg and Gorn 1987; Mathur and Chattopadhyay 1991; Murry and Dacin 1996). This intuitive theory underlies advertisers' concerns with advertising in news media that tend to skew negatively.

Compensatory/contrastive theories are relatively more complex. These theories suggest that when two types of adjacent content are processed, the contents are compared and processed through different but complementary systems (Kwon et al. 2021). If the main media content elicits one type of processing, for example, systematic processing, then the ad content is more likely to be processed using an opposite system, heuristic processing, due to the limited processing capacity of the media consumer to process substantial quantities of information systematically (e.g., Aiken and Malkewitz 2010). Because media consumers intentionally select the main media, they reserve the more demanding systematic information processing for this content. Another theory categorized as a contrastive theory relates to mood maintenance motivations and predicts that due to consumers' motivation to maintain positive moods and feelings, they will evaluate ads favorably in comparison to negative media content because it offers them a reprieve from the negativity. Unlike assimilative theories, these theories imply that news media could be a more hospitable environment for advertising.

Lastly, the third category of theories offering predictions for media context, congruity theories, focuses on how well the specific ad content fits with the media content. Unlike the previous two categories of media context effects, congruity theories introduce the ad content as a central factor, suggesting that understanding media context effects through assimilative or compensatory theories creates an oversimplified dichotomy of consumer processing. In support of congruence theories, previous research finds that consumers prefer a happy (sad) ad to a sad (happy) ad when watching a happy (sad) show (Kamins et al. 1991) and prefer brands with ads that are visually congruent with the visual identity of the sponsored media (Henderson, Mazodier, and Sundar 2019). While some research suggests that congruence enhances ad effectiveness (Moorman et al. 2002; Tipps, Berger, and Weinberg 2006), other research finds that ads perform better when there is incongruence between the context and the ad under the proper viewing conditions: reduced attention or high involvement (De Pelsmacker, Geuens and Anckaert 2007; Janssens, De Pelsmacker, and Geuens 2012). Incongruence may enhance ad effectiveness because it stands out and provokes greater depth of processing to resolve the incongruence (e.g., Moore, Stammerjohan, and Coulter 2005; Dahlén et al. 2008).

Unfortunately, for the present research investigating news media as an advertising context, the set of somewhat contradictory theories and empirical findings are not easily reconciled. Further inhibiting our understanding, the *Journal of Marketing Research* retracted one of the few research papers studying advertising in negative news¹. Even before the retraction, the paper's complex conceptual model hinged on foreign vs. domestic advertised brands and temporal delays, which made implications relatively inaccessible. We adopt a fresh approach to overcome a lack of generalizations from the advertising context literature that are

¹ The retraction notice published by the Journal of Marketing Research <https://journals.sagepub.com/doi/full/10.1509/jmkr.47.2.251>

relevant for the present research. First, we assume that the somewhat contradictory and offsetting findings in the extant literature materialize as noise when looking at the aggregate effects of news media context on ad performance. Our novel approach considers the interplay between the advertising media context and the characteristics of the consumer. We posit that the media context attracts people with certain characteristics and those characteristics have implications for ad performance. The conceptual model is further developed in the next section.

A Theory of Information Appetite Driving Advertisement Effectiveness

Our conceptualization begins with considering the drivers of media selection. A person is more likely to select news as a genre of media when in a mental state that allows for their unoccupied attention to be directed toward learning about their world. We offer *information appetite* as a construct to represent such a mental state and formally define it as a person's self-perceptible state of eagerness to consume and readiness to digest reports, predictions, opinions, and data about reality. Alternatives to such a mental state include when a person's attention is occupied on executing a specific task, which makes undirected learning about news content an unwelcome distraction, or when a person prefers to be distracted from thinking about their world and seeks out the diversion offered by entertainment (e.g., comedies, dramas, sports, reality shows, etc.).

Information appetite is related to several existing constructs. Curiosity, defined as the "cognitive deprivation that arises from the information gap between what one currently knows and what one wants to know," is similar (Wang and Huang 2018, p. 1052; Loewenstein 1994). Information appetite represents a specific pragmatic flavor of curiosity grounded in reality rather than a general curiosity that could be satisfied by finding out what comes next in an escapist

fantasy thriller, such as *Game of Thrones*. Novelty and variety-seeking motivations also share a connection to learning but imply more of an orientation toward expanding the breadth of experiences, whereas information appetite can motivate learning more about something familiar (Hirschman 1980; Trijp, Hoyer, and Inman 1996). The food appetite metaphor helps illuminate the distinction. Novelty and variety-seeking for food imply a directed appetite for something different than what a person recently or previously consumed. Information appetite, alternatively, can be satisfied by additional information on a familiar topic (i.e., a familiar food).

As an ephemeral mental state, information appetite is driven by factors that vary across and within individuals. In terms of trait-based factors explaining variance across people, people with a high need for cognition are likely to experience stronger information appetites more frequently as they have more capacity to process new information (Verplanken, Hazenberg, and Palenewen 1992). A food analog of the need for cognition to information appetite is a teenage athlete with a high metabolism and a busy schedule who often craves large meals. In terms of state-based differences, a feeling of openness, promoted by being in a positive mood, is a within-person situational factor that also supports having a strong information appetite. When someone is upset, they lose the capacity to digest anything except the simplest of thoughts (Öhman 2008; Raghunathan and Pham 1999).

The final aspect of information appetite relevant to our research is its implications for advertising effectiveness. One key component of advertising is its informational aspect, which is important for both brand and performance-related outcomes (Eisend and Tarrahi 2016; Hu, Du, and Damangir 2014). Since each aspect of advertising is aligned with its own objective, the informational aspect of advertising, with the intent to educate the target audience about an offering, should benefit from advertising to recipients with high information appetites because

their eagerness to consume and readiness to digest information makes them more receptive to the informational content of an ad.

Conceptual Model and Hypotheses

Based on our theorizing on information appetite, we develop a conceptual model to explain the relative effectiveness of advertising in news compared to entertainment media. Our framework is depicted in Figure 1. We use information appetite to make predictions about ad performance for ads appearing in different media and in response to exogenous shocks, such as a notable news event.

First, we assume that ads are generally effective at conveying brand information that stimulates further interest in the brand. Therefore, we predict that an increase in ad viewership translates to an increase in interest in the advertised brand, regardless of the media context in which the ads are embedded. Next, we theorize that the brand ad viewership-interest in advertised brand effect size varies according to the ad audience's information appetite. We expect that news media audiences disproportionately comprise people experiencing a strong information appetite compared to the audience of entertainment media, which we expect to disproportionately comprise people seeking diversion from thinking about their world. This intuition leads to our first hypothesis:

H1: An increase in brand advertisement viewership corresponds to greater consumer interest in the advertised brand. This effect is (a) positive but weakest for ad viewership occurring in entertainment media and (b) stronger for ad viewership occurring in news media.

Consistent with the logic underlying information appetite as a driver of interest in an advertised brand, the baseline positive effects of ad viewership on interest in advertised brands

should be altered by an external shock to the audience's information appetite. We consider notable news events as examples of such a shock. Specifically, the U.S. presidential election is an extraordinary news event of interest that likely shifts audience information appetite in intuitive directions. First, the U.S. national elections dominate national news as voters are eager to learn the results. In the 2016 U.S. election, over 137 million adults cast a vote, which represents more than 60% of the voting-age population (Krogstad and Lopez 2017). With such a notable event, the audience members of entertainment media are likely especially low in information appetite as they turn away from election result coverage that is of great general interest to the majority of the population. Therefore, we expect the ad viewership-interest in advertised brand effect size to decrease for ads in entertainment media during the election results coverage window. The election results also could cause a shock to information appetite for news media consumers if the election results are particularly upsetting. In 2016, Donald Trump won the presidential election with results that were particularly upsetting for liberal-oriented voters. Faced with the upsetting results, liberal audience members identified by liberal-oriented news channels (i.e., CNN and MSNBC²) were unlikely to maintain a high information appetite and eagerly process new information. Therefore, we expect the ad viewership-interest in advertised brand effect size to decrease for ads in entertainment media and on liberal-oriented news channels during the election results coverage window. Formally, we hypothesize:

H2: The positive baseline effects of brand advertisement viewership on consumer interest in the advertised brand decrease during a notable news event for (a) ad viewership occurring in entertainment media and (b) ad viewership occurring in partisan-oriented news media with an audience that likely receives the news event negatively.

² Reuters Institute provides ratings of news audience polarization across platforms such that -0.5 is very left-leaning audience and +0.5 is a very right-leaning audience. As of 2016 (appropriate for our Nielsen data), Fox News' audience slant was 0.26, whereas MSNBC's and CNN's audience slant were -0.07 and -0.08 respectively (Fletcher 2022).

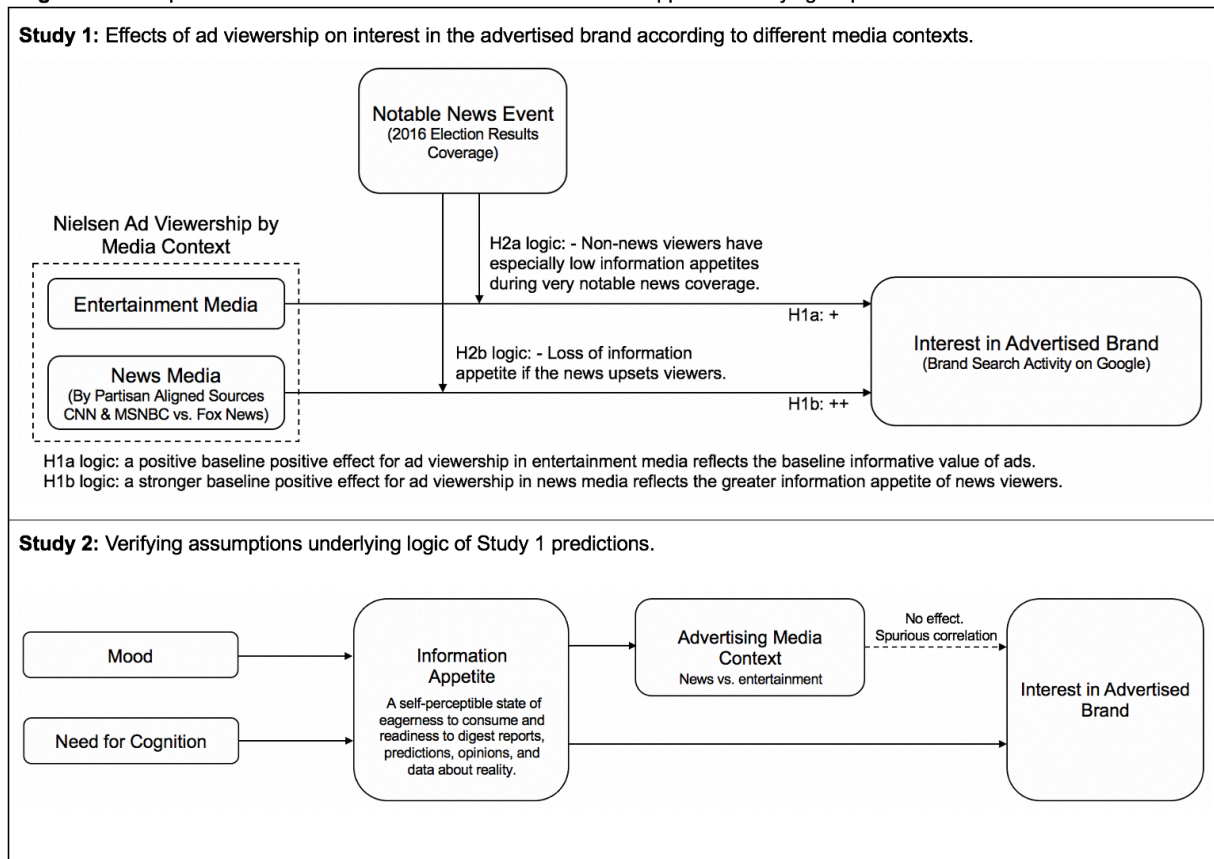
Empirical overview

Our empirical investigation employs a multimethod approach relying on real-world secondary data from Nielsen and Google Trends and two primary, controlled studies to test our proposed conceptual model. Study 1 examines daily search behavior on Google during the 2016 U.S. presidential election for 1,706 TV advertisers who advertised on news and entertainment programming. Within the news media category, we use three partisan-oriented news channels (i.e., Fox News as conservative-oriented vs. CNN and MSNBC as liberal-oriented) to compare the change in news advertising effect sizes around the election based on the assumed mood of the audience due to the divergent emotional impact of the election results given the channels' differing partisan affiliations.

The logic underlying the above hypotheses tested in Study 1 largely relies on previously untested assumptions regarding our theorizing about information appetite. To bolster confidence in the assumptions underlying our predictions, we delineate testable assumptions posited in the section theorizing about the information appetite construct. The top panel in Figure 1 depicts the relationships assumed in our hypotheses, whereas the bottom panel illustrates how the underlying assumptions behind the hypotheses in Study 1 are tested in Studies 2a/b. Both Study 2a and 2b measure information appetite with a survey and assess the extent to which variance in the information appetite measures are predicted by variance in mood (underlying H2b) and the trait need for cognition. In Study 2a we observe if variance in the measure of information appetite predicts media choice. Consumers with higher information appetite scores have a higher likelihood of selecting news media compared to entertainment. In Study 2b, we randomly assign

study participants to view an ad embedded in entertainment or news media, and then observe if variance in the information appetite measure predicts interest in the advertised brand, regardless of the type of media in which the ad was embedded. These combined effects of information appetite independently predicting the selection of news media and advertising performance support the logic underlying H1a/b and H2a.

Figure 1. Conceptual model and overview of research on information appetite underlying ad performance across ad media contexts.



Study 1: Real-world effects of ad viewership context on interest in the advertised brand

Study 1 uses a unique combination of Nielsen and Google Trends data to examine ad performance by media source. We build our analysis around an extraordinary news event, the 2016 U.S. presidential election, to compare advertising effectiveness across different media environments (news vs. entertainment). Using the 2016 U.S. presidential election as a notable news event is advantageous for two reasons. First, given the uncertain nature of the outcome, Donald Trump's victory over Hilary Clinton, the event represents an exogenous shock for viewers, where depending on the political affiliation of the audience, the outcome yielded disparate, often strong, emotional reactions. Second, as election results consumed media cycles, individuals who chose to watch entertainment media during that time frame were especially motivated to consume media that provided a diversion or escape from reality, which provides a beneficial context to test our theory. By comparing ad performance across different media contexts, Study 1 tests both H1 and H2.

Data and measurement

We obtained the data for Study 1 by merging TV ad viewership data from Nielsen's Ad Intel dataset with brand search data from Google Trends. We took several steps to construct a manageable and balanced dataset that allowed for comparing brands that advertised on news vs. entertainment. First, we excluded all political and public service advertisers to focus on commercial brands. We then identified all brands that advertised during both the two weeks before and after the 2016 presidential election on at least one of the three main cable news channels: MSNBC, CNN, or Fox News. 853 brands fit these criteria. To balance the sample with a similar set of brands that did not advertise on these news channels, we used nearest-neighbor

propensity score matching (Stuart et al. 2011). Brands eligible for matching also advertised during the same eight-week window but not on the news. Propensity to have advertised on the news was predicted by six variables captured from the month before the election: the number of unique channels the brand advertised on, the brand's total number of TV advertisements, the duration of all the brand's ads during that time frame, total impressions on ads, the brand's ad spend, and the product category. After matching brands that advertised on the news with their nearest neighbor brands that did not advertise on the news, we had a manageable and balanced dataset comprising 1,706 unique brand advertisers. After aggregating the advertising and viewership data by brand and by day for the month before and after the election, 57 total days, our data set comprised 97,242 brand-day observations.

Independent variables. The primary independent variables are brand advertising impressions by advertising media context by day, with the election results coverage window (election day and the day after) dummy coded (1 = election result coverage window, 0 = other days) to allow for the estimation of moderation of baseline advertising effects by the election results coverage window. Nielsen's brand advertisement impressions data estimates the number of households, in millions, exposed to each showing of each ad and identifies the channel and program in which each ad appears. We aggregated these advertising impression estimates by brand and by media genre (news vs. entertainment) per day. We subcategorized the news genre by the news audiences' partisan orientation to allow us to observe differing effects of the election results for more conservative or liberal viewers. If a brand's advertisement impressions occurred only on Fox News, we considered those ad impressions to be served to a conservative audience that would react positively to the 2016 presidential election results. If a brand's advertisement impressions occurred only on CNN or MSNBC, we considered those ad impressions to be served

to a liberal audience that would react negatively to the 2016 presidential election results. If a brand's advertising occurred on both Fox News and one of the liberal channels or on news programming on another channel (e.g., CBS News), then we assumed the ad audience had a mixed partisan orientation. We categorized ad impressions in all non-news programming as ad impressions in an entertainment media context. Sample information is in Table 2.

Table 2
Study 1 Advertiser Brands

Advertisers Industries	Number of Brands	Mean Daily Advertisement Impressions (per million)			Entertainment Ad Impressions
		News Ad Impressions			
		Conservative Audience	Liberal Audience	Mixed Audience	
Apparel, footwear, & accessories	20	0.11	0.14	1.78	6.45
Automobiles, automobiles accessories & equipment	62	0.20	0.33	3.07	13.53
Beer & wine	10	0.01	0.19	0.40	10.13
Building materials, equipment & fixtures	28	0.14	0.17	2.11	3.73
Business & consumer services	428	0.18	0.22	1.86	4.97
Computers, office equipment & stationery	24	0.11	0.53	1.52	7.95
Confections, snacks & soft drinks	36	0.01	0.01	0.75	17.47
Direct response products	112	0.19	0.11	0.77	1.27
Drugs & remedies	266	0.19	0.15	2.31	5.79
Electrical equipment & supplies	10	0.00	0.09	0.19	9.79
Entertainment & amusements	92	0.06	0.12	1.34	18.97
Foods & food products	98	0.09	0.04	1.21	13.20
Freight, industrial & agricultural development	10	0.06	0.15	1.26	1.92
Gasoline, lubricants & fuels	4	0.27	0.06	2.84	0.85
Household equipment & supplies	50	0.19	0.24	1.28	11.90
Household furniture supplies & materials	12	0.10	0.07	0.85	7.90
Industrial materials	6	0.00	0.23	1.12	0.43
Insurance & real estate	62	0.05	0.30	3.20	14.08
Miscellaneous	2	0.00	0.00	0.01	0.05
Pets, pet foods, supplies & organic materials	16	0.13	0.17	1.94	10.59
Publishing & media	28	0.88	0.17	1.87	8.44
Retail	106	0.10	0.17	2.54	19.05
Soaps, cleansers & polishes	26	0.07	0.06	0.92	12.59
Sporting goods, toys, & games	46	0.20	0.33	1.36	13.77
Toiletries & cosmetics	106	0.06	0.07	1.07	9.45
Travel, hotels & resorts	46	0.12	0.28	1.84	2.82
Totals	1,706	3.51	4.40	39.42	227.08

Dependent variables. The dependent variable is interest in the advertised brand. We measured interest in the advertised brand using data from Google Trends reflecting consumer search behavior. According to a Google Consumer Survey, 66% of smartphone users have searched for more information about something they saw in a TV commercial (Google 2015). Google Trends provides relative daily search activity data that is normalized such that the highest observed value for all search terms across the time period of interest is 100 (Du, Xu, and Wilbur 2019; Hu, Du, and Damangir 2014). Marketing scholars have utilized Google Trends data as a variable of interest to investigate a variety of important research questions (Branikas and Buchbinder 2021; Chandrasekaran, Srinivasan, and Sihi 2019; Guitart and Stremersch 2021; Joo et al. 2014; Liaukonytė and Žaldokas 2022; McGranaghan, Liaukonytė, and Wilbur 2022; Zigmond and Stipp 2010). Table 3 provides a review of recent TV advertising research that uses Google Trends as a dependent measure. To obtain the Google Trends data for each brand, we first formed groups of four brands, two pairs of news and entertainment advertisers from the same product category with similar total advertising spend during the month before the election, and then entered these four brand names as keywords into Google Trends for the time period of interest. In effect, the normalization of Google Trends data to the highest daily search activity among the four brands controls for unobserved product category factors as we are left to explain the variance that occurs among these brands over time.

TABLE 3
Advertising Research Utilizing Google Trends for Brands or Products as a Performance Outcome

Paper	Advertisers	Advertising Media Context	Key Outcomes	Relevant Findings
Branikas and Buchbinder (2021)	S&P 500 Super Bowl advertisers	Super Bowl	Search for advertisers' stock tickers	Ads increase households' interest for advertisers' stocks (equity) and dilute local stock bias.
Chandrasekaran, Srinivasan, and Sihi (2018)	Super Bowl advertisers	Super Bowl	Brand search	The content of Super Bowl ads predicts brand search. The informational, but not emotional, content of the ad predicts search.
Du, Xu, and Wilbur (2019)	Automobile brands	—	Brand search	TV ads lead to a variety of immediate online responses suggesting that search can be used to measure ad effectiveness. Ad elasticity of search varies with ad creative characteristics (e.g., the informativeness of the ad), audience category interest, slot of the break, program genre, and time factors.
Guitart and Stremersch (2021)	Automobile brands	Broadcast television	Brand search + sales	The greater the emotional, but not informational, content of ads the more brand search. Both informational and emotional content positively predict sales.
Hu, Du, and Damanger (2014)	Automobile brands	—	Brand search + sales	Consumers' online search can be combined with sales data to decompose advertising's overall impact into two underlying components: its impacts on (1) generating interest in prepurchase information search and (2) converting that interest into sales.
Joo, Wilbur, Cowgill, and Zhu (2014)	Financial services brands	Variable	Brand search	TV advertising increases both the number of brand searches and the searchers' tendency to use branded keywords in place of generic keywords.
Liaukonytė and Žaldokas (2022)	Publicly listed companies	Broadcast TV	Search for advertisers' stock tickers + stock trading volume	TV ads lead to an increase in Google searches and EDGAR (Electronic Data Gathering, Analysis, and Retrieval) system queries for information about the advertiser. Ads also increase searches and trading of companies other than the advertiser, including competitors.
McGranaghan, Liaukonytė, and Wilbur (2021)	Varied	Study 1: Broadcast TV Study 2: Super Bowl	Ad viewership + brand search	Improved metrics that distinguish ad viewability from actual ad viewing better predict brand search lift.
Zigmond and Stipp (2010)	Varied	Sports, comedy, primetime TV	Brand search	TV commercials or sponsorships can trigger internet searches by consumers.

Controls. TV programming accounts for weekly schedules and notable holidays; therefore, we controlled for day of the week (i.e., Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday, excluding Monday; coded such that 0 = not Tuesday, 1 = Tuesday) and notable holidays (i.e., Thanksgiving; 0 = not Thanksgiving, 1 = Thanksgiving). We also employ brand-fixed effects to account for unobservable differences between brands.

Model specification

We begin our analysis with a baseline model identifying the main effects of advertising impressions by media context on interest in the advertised brand. We estimate the effect of advertising on Google Search for brand b at time t using the following regression equation:

$$\begin{aligned}
 \text{Interest in brand}_{bt} = & \alpha_0 + \alpha_1 \text{Election Results Coverage Window}_t \\
 & + \alpha_2 \text{News-Conservative Audience}_{bt} \\
 & + \alpha_3 \text{News-Liberal Audience}_{bt} \\
 & + \alpha_4 \text{News-Mixed Audience}_{bt} \\
 & + \alpha_5 \text{Entertainment}_{bt} \\
 & + \alpha_6 \text{Day of the Week}_t \\
 & + \alpha_7 \text{Thanksgiving}_t \\
 & + \alpha_8 \text{Brand Fixed Effects}_b \\
 & + \varepsilon_{bt} \tag{1}
 \end{aligned}$$

Then, we introduce the election results coverage window as a temporal moderator, interacting with advertising impressions by media context. When the election results coverage window is coded 1, and time outside the window is coded 0, coefficients α_2 , α_3 , α_4 , and α_5 represent the baseline effect excluding the shock of the election. We also inverted the coding (election results coverage window = 0, outside the election results coverage window = 1) so that α_2 , α_3 , α_4 , and α_5

become estimates of the effect of advertising impressions in each media context during the election results coverage window. This allows for a clean evaluation of our hypotheses. Equation 2 depicts the additions of these interaction terms:

$$\begin{aligned}
\text{Interest in ad brand}_{bt} = & \alpha_0 + \alpha_1 \text{Election Results Coverage Window}_t \\
& + \alpha_2 \text{News-Conservative Audience}_{bt} \\
& + \alpha_3 \text{News-Liberal Audience}_{bt} \\
& + \alpha_4 \text{News-Mixed Audience}_{bt} \\
& + \alpha_5 \text{Entertainment}_{bt} \\
& + \alpha_6 \text{News-Conservative Audience}_{bt} \times \text{Election Results Coverage Window}_t \\
& + \alpha_7 \text{News-Liberal Audience}_{bt} \times \text{Election Results Coverage Window}_t \\
& + \alpha_8 \text{News-Mixed Audience}_{bt} \times \text{Election Results Coverage Window}_t \\
& + \alpha_9 \text{Entertainment}_{bt} \times \text{Election Results Coverage Window}_t \\
& + \alpha_{10} \text{Day of the Week}_t \\
& + \alpha_{11} \text{Thanksgiving}_t \\
& + \alpha_{12} \text{Brand Fixed Effects}_b \\
& + \varepsilon_{bt} \tag{2}
\end{aligned}$$

Estimation results. The results reveal a significant and positive effect of advertising impressions on interest in the advertised brand for all media contexts (news and entertainment), consistent with H1a (Table 4, Model 1). However, the relative magnitude of the advertising impression effects differs by media context. In support of H1b, we find that ad impressions located within news contexts predict greater interest in the advertised brand compared to those within

entertainment contexts. The effect size for ad impressions in entertainment was .13 ($p = .00$) with a 95% confidence interval (CI) between .12 and .14, while the effect sizes for ad impressions within news were all higher than the upper bound of the 95% CI for entertainment (ad impressions in news with a conservative audience effect $b = .48, p = .00, 95\% \text{ CI } [.33, .63]$; news with liberal audience $b = .27, p = .00, 95\% \text{ CI } [.13, .41]$; Mixed audience $b = .22, p = .00, 95\% \text{ CI } [.19, .25]$). The relatively stronger effect for news vs. entertainment of advertising impressions on interest in the advertised brand is consistent with our theorizing regarding news attracting an audience with a greater information appetite.

The shock of the election results provides a further opportunity to test the impact of our theorizing on information appetite. In support of H2a for entertainment and H2b for news to an upset audience (liberal audience), the election results coverage window significantly altered the effect of ad impressions on interest in the advertised brand for advertising on entertainment (Table 4, Model 2: $b = -.13, p = .00$) or news with a liberal audience ($b = -.30, p = .04$) or news with mixed partisanship of the audience ($b = -.09, p = .01$). The effect was not significantly moderated for ads in news shown to a conservative-oriented audience ($p = .74$).

TABLE 4
Study 1 Results: Effect of Advertising Impressions by Media Context on Interest in the Advertised Brand

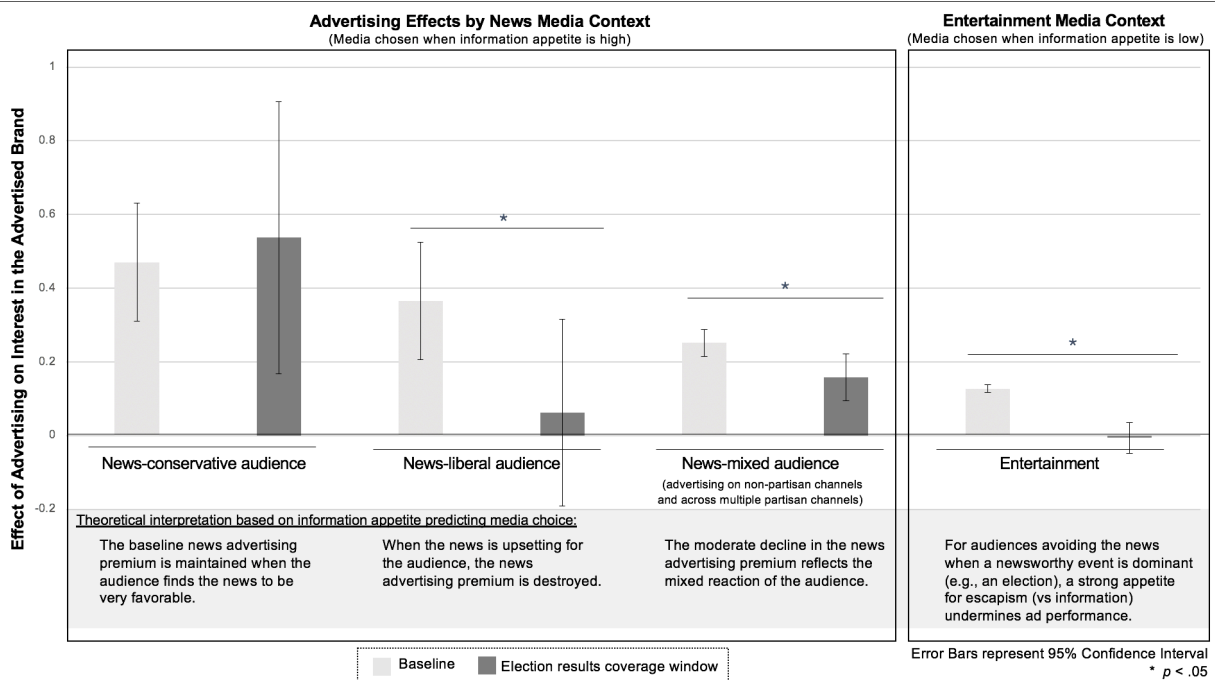
	Model 1: Main Effects of Media Context		Model 2: Interactions of Media Context by Election Results Window	
	Estimate	SE	Estimate	SE
Primary Predictors				
Advertising media context				
News-conservative audience	0.48 ***	(.08)		
Baseline effect			0.47 ***	(.08)
During election results coverage window			0.54 **	(.19)
News-liberal audience	0.27 ***	(.07)		
Baseline effect			0.37 ***	(.08)
During election results coverage window			0.06	(.13)
News-mixed audience	0.22 ***	(.02)		
Baseline effect			0.25 ***	(.02)
During election results coverage window			0.16 ***	(.03)
Entertainment	0.13 ***	(.01)		
Baseline effect			0.13 ***	(.01)
During election results coverage window			-0.01	(.02)
Election results coverage window	-8.82 ***	(.34)	-7.49 ***	(.37)
Moderation: Media context × election results coverage window				
News-conservative audience × election results			0.07	(.20)
News-liberal audience × election results			-0.30 **	(.15)
News-mixed audience × election results			-0.09 **	(.04)
Entertainment × election results			-0.13 ***	(.02)
Controls				
Intercept	30.61 ***	(.38)	31.87 ***	(.41)
Day of the week	Yes		Yes	
Brand fixed effects (1706 brands)	Yes		Yes	
Model				
R-Square	.62		.62	
N	97,242		97,242	

Notes: * $p < .10$. ** $p < .05$. *** $p < .01$.

Using spotlight analysis, we compare the effects of advertising impressions for each media during the election results coverage window and outside of the window (depicted in Figure 2). In support of H2a, the effect of ad impressions on entertainment went from positive ($b = .13, p = .00$) to not distinguishable from 0 during the election results coverage window ($b = -.01, p = .76$), which we interpret as due to especially low levels of information appetite and strong escapism motivations among the audience selecting that programming during the time

period in which the election results were being covered. The effect among news watchers differed in accordance with the partisan orientation of the audience. For liberal audiences, the positive effect of ad impressions outside the election results coverage window ($b = .37, p = .00$) became non-distinguishable from 0 ($b = .06, p = .63$), which supports H2b. We interpret this drop as the result of a loss of information appetite due to being emotionally upset by the election results. For ads in news shown to a mixed audience, the coefficient during the election results coverage window remained positive and statistically significantly different from 0 ($b = .16, p = .00$) although significantly lower than the coefficient for ad impressions shown outside the election results coverage window ($b = .25, p = .00$). We interpret the drop in the coefficient as due to a portion of the audience having lost their information appetite due to being emotionally upset by the election results.

Figure 2. The Effect of Advertising by Media Context on Interest in the Advertised Brand.



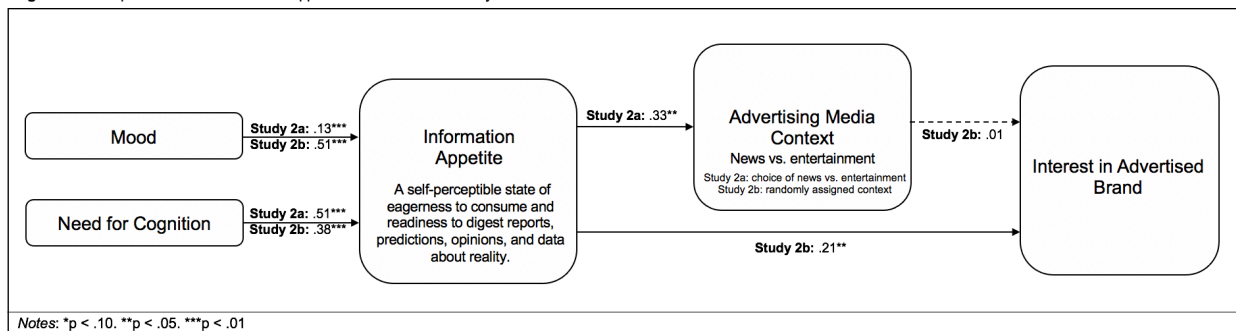
Discussion. Overall, Study 1 provides estimates of the effectiveness of advertising on interest in the advertised brand that are consistent with our theorizing regarding information appetite as a key determinant of advertising success. The advertising impressions on news media were more predictive of interest in the advertised brand than advertising impressions on entertainment media. This was especially the case during the window of time in which the 2016 U.S. election was unfolding. Those who chose to watch entertainment seemed less interested in the advertised brands, perhaps because they were seeking to escape rather than to be informed. However, the news premium is fragile, as exemplified when the news content is negative, or unfavorable. In the context of the 2016 presidential election, Fox News ad effectiveness held up as their audience was presumably very happy with the surprising election of the Republican candidate Donald Trump. The advertising on news premium completely disappeared, however, for CNN and MSNBC, which attract a liberal audience who presumably were upset with the election results. If a negative mood is upsetting of an information appetite, then news content producers might help their audience partners by limiting the sensationalizing of negative content. While the real-world data in Study 1 provides ecological validity for testing the theorizing about information appetite, it does not directly test the underlying assumptions. Therefore, additional studies that offer greater control are necessary.

Study 2: Verifying the assumptions underlying the interpretation of Study 1 results

Study 2 consists of two preregistered controlled studies, which together investigate the extent to which information appetite jointly predicts the type of media selected and the receptivity to

advertising that underlies the theoretical interpretation of the Study 1 results. In Study 2, we use a survey to directly measure an individual’s information appetite. In one version, Study 2a (preregistered at https://aspredicted.org/ZF7_G93), we have participants select news or entertainment media to watch, to see if our measure of information appetite predicts the choice of news. In the other version, Study 2b (preregistered at https://aspredicted.org/XPN_R4H), we randomly assign participants to watch the news or entertainment media and embed the same advertisement in both. Then, we use the survey to measure their interest in the advertised brand and see if their information appetite predicts interest in the advertised brand regardless of the genre of media in which the advertisement was shown. In both studies, we include survey measures of participant mood and need for cognition to see if those predict information appetite, consistent with our theorizing. Figure 3 provides an overview of the relationships, conceptually and statistically, compiled from Studies 2a and 2b.

Figure 3. Conceptual model of information appetite with results from Study 2a and 2b.



Study 2a

Methodology: participants and procedures. Two hundred participants living in the U.S. were recruited from Prolific (www.prolific.co) in exchange for a nominal payment. One participant did not complete the study, so the final sample comprised 199 participants (47%

female, 53% male; mean age 32 years). The recruitment material told participants that they would be asked questions about content they may encounter online.

Participants first rated their mood and information appetite before selecting a 90-second video to watch that was either daily news that was current at the time of the study, or a recent movie trailer (entertainment media). After making their media selection, participants watched the clip on the following page. Regardless of the media clip chosen, the first 28 seconds consisted of a real ad for an insurance brand so as to be consistent with the media consumption in Study 2b, which assessed interest in an advertised brand. Before exiting the survey, respondents completed the trait need for cognition scale and other individual difference variables, such as media genre consumption and demographics.

Measures. First, participants rated their mood on a 21-point scale adapted from Mayer and Gaschke (1988; “we would like to know how you're feeling right now. Please use the scale below to rate your mood today”; 0 = “very unpleasant,” and 21 = “very pleasant”). Next, participants rated their information appetite after reading the following:

“Similar to how people have an appetite for food that can fluctuate throughout the day based on their environment and what they're doing, people also have an appetite for information. We define information appetite as: A state of eagerness to consume and readiness to digest reports, predictions, opinions, and data about reality. Now, using the following items rate your own information appetite at the moment by rating how much you agree with the following statements.”

The five statements are (“I am feeling in the mood for something thought provoking”; “I am feeling hungry to learn right now”; “Right now, I’d rather escape from reality than think about it” [reverse-coded]; “Right now is a good time for me to consider information”; “I do not want to

seriously think about anything right now” [reverse-coded]), and all were rated using a seven-point scale anchored by 1 = “strongly disagree,” and 7 = “strongly agree.” The mean of the five measures was calculated as a composite measure with a Cronbach alpha of .88.

Media selection was measured as a binary choice (1 = news clip, 0 = movie trailer) after participants read the following instructions: “Now, would you like to watch a short video before answering more questions? You can choose to watch either a clip of today's news or a movie trailer. Both are 1 minute and 30 seconds long. You will be watching the option you select on the next page.” After watching the media clip of their choice, participants answered questions about their media consumption habits (“How many hours of TV or online videos (e.g., Netflix & YouTube) do you watch a week?” and “How frequently do you consume the following types of content?”; 1 = “never,” and 7 = “very frequently”). Lastly, they completed demographic measures and a six-item need for cognition scale (adapted from Lins de Holanda Coelho, Hanel, and Wolf 2020; e.g., “I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought”; 1 = “strongly disagree,” and 7 = “strongly agree”; $\alpha = .89$; see Appendix).

Results. Of the 199 participants, 66 (33%) chose to watch the 90-second news clip. To understand how information appetite predicts consumers’ likelihood of selecting news media (1/0), we conducted a series of logistic regressions and used directional, one-tail p-values to evaluate the preregistered effects of information appetite. Models 1 and 2 in Table 5 provide model estimates. Consistent with our theoretical interpretation of the Study 1 results, information appetite is a significant and positive predictor of choosing to watch news media over entertainment even with controls for mood, need for cognition, gender, age, political affiliation, and factors reflecting media consumption habits (hours of video content watched weekly and

genre preferences) ($b = .33, p = .03$). Participant's information appetite was predicted by their mood ($b = .13, p = .00$) and trait need for cognition ($b = .51, p = .00$).

TABLE 5
Effect of Information Appetite on Advertising Media Context (News vs Entertainment) and Interest in Advertised Brand

	Study 2a: Choice of Media (News vs. Entertainment)		Study 2b: Interest in Advertised Brand	
	Estimate	SE	Estimate	SE
Primary Predictor				
Information Appetite	0.33 **	(.15)	0.21 **	(.11)
Controls				
Need for cognition	-0.11	(.14)	0.01	(.11)
Mood	-0.06	(.04)	0.04	(.03)
Hours spent watching TV	-0.01	(.01)	0.00	(.01)
Content consumption: dramas	0.04	(.11)	-0.04	(.08)
Content consumption: reality tv	-0.01	(.10)	0.07	(.07)
Content consumption: news	0.35 ***	(.10)	0.11	(.07)
Content consumption: sports	-0.05	(.10)	0.08	(.07)
Content consumption: sitcoms	-0.14	(.11)	0.11	(.07)
Age	-0.01	(.01)	0.01	(.01)
Political affiliation	0.02	(.08)	-0.08	(.25)
Gender (female)	-0.20	(.37)	0.35	(.28)
Phone ownership			-0.64	(.53)
Car ownership			-0.34	(.33)
House ownership			0.48	(.30)
Advertising media condition			-0.01	(.26)
Intercept	-1.12	(.94)	0.18	(.92)
Model				
Deviance (-2 log likelihood)	226.64			
AIC	252.64			
BIC	295.46			
Likelihood ratio chi-square test	26.23 (df = 12)			
R-square			.20	
N	199		200	

Notes: * $p < .10$. ** $p < .05$. *** $p < .01$

Study 2b

Methodology: participants and procedures. The procedure for Study 2b was very similar to Study 2a, except participants were randomly assigned to watch either the news or the

entertainment content, both with the same insurance advertisement, and then they rated their interest in the advertised brand using measures in the survey. Like Study 2a, two hundred participants living in the U.S. who did not take Study 2a were recruited from Prolific using the same recruitment prompt about online content. All participants completed the survey, resulting in a sample of 200 participants (49% female, 51% male; mean age 36 years).

Following the procedure in Study 2a, participants first rated their mood and information appetite before being shown either the news clip or the movie trailer. The 90-second media clips, including the advertisement, were the same videos used in Study 2a. After watching the randomly assigned media clip, respondents completed an attention check and filler task before rating their interest in learning more about the advertised brand. Lastly, the experiment concluded with the trait need for cognition scale and other individual difference variables relevant to the advertised insurance brand, such as phone and car ownership, and demographics.

Measures. Study 2b used the same mood and information appetite measures as Study 2a. In Study 2b, after rating information appetite ($\alpha = .84$) and before watching the randomly assigned media clip, participants listed five zoo animals as a filler task. After watching the media clip, participants completed an attention check (“Please briefly summarize the clip that you just watched”). They then proceed to the dependent measure, interest in the advertised brand, which was calculated as the average of three items (“How interested are you in learning more about [brand],” “How likely are you to search for more information about [brand] on the internet,” and “How likely are you to search for the [brand] app?”; 1 = “not at all interested/likely,” and 7 = “very interested/likely”; $\alpha = .96$). After rating their interest in the advertised brand, participants indicated whether they owned/rent a car, house, or phone, which were relevant given the product category advertisement (e.g., “Do you regularly use (rent or own) a car?”; 1 = “yes,” and 0 =

“no”). Participants then completed demographic measures and the same need for cognition measure used in Study 2a ($\alpha = .89$).

Results. We regressed interest in learning more about the advertised brand on information appetite, controlling for media condition (news = 1, entertainment = 0) as well as mood, need for cognition, gender, age, political affiliation, factors reflecting TV consumption habits, and relevance of the advertised product category. We used directional, one-tail p-values to evaluate the preregistered effects of information appetite. Information appetite significantly predicts interest in the advertised brand above and beyond the controls (Table 5, $b = .21, p = .08$). Similar to Study 2a, both mood and need for cognition predict information appetite (mood $b = .14, p = .00$; need for cognition $b = .38, p = .00$). Furthermore, exposure to the advertisement in the news clip vs. movie trailer had no discernable impact on interest in the advertised brand ($b = -.01, p = .98$). Therefore, interest in the advertised brand is primarily driven by participants’ information appetite rather than the media context in which the ad is shown.

Discussion. Together, Studies 2a and 2b provide evidence that supports our theoretical interpretation of the Study 1 results. In the pair of complementary controlled studies, we find that information appetite predicts both consumers’ likelihood of selecting to watch news content (Study 2a) as well as the interest in an advertised brand regardless of the type of media the advertisement is embedded within (Study 2b). Other state and trait factors, specifically mood and need for cognition, are predictive of both the likelihood of selecting to watch news and interest in an advertised brand when information appetite is not included as a predictor. Collectively, these studies underscore the role of information appetite in assessing advertising effectiveness and the need to consider factors driving media selection for fully understanding advertising context effects.

General Discussion

The main story of this research is that information appetite drives media consumers' interest in some media offerings over alternatives and makes those media consumers more positively receptive to advertisements. This has implications for the advertising and media industry as well as advertising scholars. Advertising media planners, empowered with new capabilities of avoiding content, have renewed interest in understanding advertising context effects. Classically, academics were concerned with how the advertising context changed the audience's receptivity to ads (Dahlén et al. 2008; Malthouse, Calder, and Tamhane 2007; Mathur and Chattopadhyay 1991; Tipps, Berger, and Weinberg 2006). Our theory on information appetite argues that the ad context attracts audiences of differing receptivity to ads and that attraction is the first-order consideration when evaluating context effects. Secondly, negative news could alter the audience's information appetite, particularly by upsetting their mood, which in turn changes their receptivity to ads. We offer a more detailed discussion of the implications of our theory below.

Theoretical implications of information appetite to the advertising literature

Our research makes two main contributions to advertising literature. First, we show that understanding factors motivating the selection of news media has important implications for ad performance. There is a long history of research examining how the advertising context impacts ad performance (Kwon et al. 2019). Our research is additive because it considers context as attracting, rather than just altering, audiences in a particular mental state. Randomly assigning study participants to particular content can help reduce certain confounds, but it also limits

researchers from uncovering or understanding factors that can have large impacts on advertising effectiveness. In Study 2b, in which we randomly assigned participants to view an advertisement in news or entertainment video context, the news vs. entertainment context had no explanatory power of participants' interest in the advertised brand. However, some of the same factors (i.e., mood, need for cognition, and ultimately information appetite) that predicted the media participants chose to watch (Study 2a) also predicted their interest in the advertised brand (Study 2b).

Second, we develop the construct of information appetite as a consequential determinant of advertising effectiveness. In Studies 2a and 2b, we identify trait (need for cognition) and state (mood) determinants of information appetite. Information appetite among audience members can explain the differing effectiveness of advertisement impressions in news media vs. entertainment media and why the effectiveness in advertising on news can fall when the news is very upsetting to the audience. Furthering our understanding of how states and traits impact media consumption choices and advertising effectiveness, we find that information appetite is predicted by both mood and need for cognition.

The evidence in Study 1 that ad effectiveness fell among a Democrat-supporting, but not Republican-supporting, audience during the 2016 U.S. election result coverage window is compelling evidence that audience mood is a determinant of advertising effectiveness. Therefore, information appetite explains context effects due to both mental state attraction (i.e., news attracting an audience seeking to learn something about the world vs. entertainment attracting an audience seeking a diversion from the world) and alteration (i.e., upsetting content ruining an audience's mood and consequently their information appetite).

Additionally, the Study 1 results suggest that information appetite could be subject to source effects. Similarly, an appetite for food is stronger when people anticipate food from a familiar, well-liked, and trusted source such as a favorite dish made by our parents or grandparents. We expect a person's information appetite to be the strongest when the information source is familiar and trusted. The baseline advertising impression coefficients in Study 1 for ads on news with a partisan audience (i.e., Fox News, or MSNBC/CNN) were higher than the coefficients for advertising impressions on news serving a mixed audience. While these sources are positioning their news coverage to align with their viewers' political beliefs and values, they may hurt advertisers if they sensationalize, editorialize, or emotionally frame content in a manner that upsets their audience and, therefore, ultimately harms their advertising partners. Further research is required to strengthen our confidence in these source effects because the current evidence relies solely on baseline differences in advertising effectiveness that are subject to many unobserved differences. Without moderation and confirming controlled studies, it is difficult to be confident that these baseline differences are explained by a greater appetite due to a more trusted source.

Limitations and future research directions

The present research broadens the lens of the existing context effects literature, but it also presents several paths for additional work. The primary limitation is that we focus on advertising as information and evaluate ad effectiveness accordingly. Information appetite is a mental state congruous with brand search, which is one performance-focused outcome of advertising (Eisend and Tarrahi 2016; Hu, Du, and Damangir 2014). Other advertising objectives are to trigger positive affective reactions and to build unique mental associations. Information appetite may not be relevant for these advertising objectives. Furthermore, advertisers have brand safety

concerns regarding mental associations with certain news content, and those concerns require investigation outside of the theoretical scope of information appetite. A holistic, and long-term, evaluation of news as a context for advertising requires an assessment of brand safety considerations.

Another limitation is that our empirical evidence focused on one format of ads in video mediums. Other ad formats, such as when the news is displayed adjacent to an ad, may be more harmful for ad performance and validate brand safety concerns. During CNN breaking news coverage of the Russian invasion of Ukraine in 2022, an upbeat ad for Applebee's was displayed in a split screen format next to the live footage of the attack. In response to this instance which received widespread public criticism, Applebee's temporarily pulled all advertising from CNN. Future research could explore how the ad format impacts ad performance.

In terms of different mediums, social media feeds and media formats that facilitate ad skipping and avoidance, greater information appetite could actually drive increased ad skipping and avoidance as information appetite could motivate behaviors that expedite the obtaining of information. Furthermore, our categorization of media as news or entertainment is rather coarse and likely obfuscates important nuances between subtypes of news and entertainment contexts. Information appetite is likely one of several mental states that predict media consumption and ad performance, which would become more apparent with the study of subgenres of media.

Information appetite, like an appetite for food, could be subject to satiation effects. While we do not see any evidence of satiation, it could be because the ad was shown before the news video or because the news clip was short in duration. The results of Study 2b suggest that exposure to a news clip does not fulfill information appetite more than exposure to a movie trailer. Further research should investigate how factors other than mood can reduce information

appetite. For instance, some subgenres of media, such as documentaries, may satisfy information appetite more than others.

Lastly, to explain that news viewers pay less attention to commercials (McGranaghan, Liaukonyte, and Wilbur 2022) but react more positively to commercials, we propose that news viewers with strong information appetite are more likely to multi-task, therefore decreasing attention, but they are more eager and ready to digest commercials. Further research should investigate the latter proposition.

APPENDIX: Measurement scales used in studies 2a and 2b

<p>Constructs Items</p>
<p>Information appetite $\alpha_{2a} = .88$; $\alpha_{2b} = .84$</p> <ul style="list-style-type: none"> • I am feeling in the mood for something thought provoking. • I am feeling hungry to learn right now. • Right now, I'd rather escape from reality than think about it. (R) • Right now is a good time for me to consider information. • I do not want to seriously think about anything right now. (R)
<p>Interest in ad brand $\alpha = .96$</p> <ul style="list-style-type: none"> • How interested are you in learning more about [ad brand]? • How likely are you to search for more information about [ad brand] on the internet? • How likely are you to search for the [ad brand] app?
<p>Need for cognition $\alpha_{2a} = .89$; $\alpha_{2b} = .89$</p> <ul style="list-style-type: none"> • I would prefer complex to simple problems. • I like to have the responsibility of handling a situation that requires a lot of thinking. • Thinking is not my idea of fun. (R) • I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. (R) • I really enjoy a task that involves coming up with new solutions to problems. • I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.

Notes: R = reverse-coded

A QUALITATIVE INVESTIGATION OF CONTEXTUAL ADVERTISING AND NEWS

To complement the previous empirical investigation, I conducted a series of theory-in-use style interviews to identify and understand industry practitioners' mental models related to advertising in the news (Zeithaml et al. 2020). While validating the managerial implications of the results in the prior section, the collection of interviews also provides insight into the challenges related to the limited scope of the performance-based outcomes that were the focus of the first three studies. All interview participants were recruited using personal connections and snowball sampling. We also attempted to recruit advertising professionals through LinkedIn messages, which yielded no respondents. All interviews were conducted and recorded over Zoom and lasted between 18 and 42 minutes. Recordings were then transcribed for analysis. Consistent with the theory-in-use methodology, we ended interview recruitment when each additional interviewer was not providing additional insights, suggesting that theoretical saturation had been reached.

In-depth interviews were conducted with seven informants that have experience within different facets of the advertising industry, which provided a triangulated perspective on the importance of contextual targeting. Their experience spanned both digital and TV, entertainment and news media, and varied in their proximity to working with brand advertisers. Three participants had careers in the ad tech sector and developed, or led the development of products related to contextual targeting. Two participants had experience with linear TV advertising as ad sales planners for two separate TV networks. One worked at a news network with a strong partisan reputation, including during a contentious election cycle, and another at a network whose portfolio was comprised of entertainment-focused channels. Two participants worked on

the brand side, both with agency and in-house experience. Two participants are actively developing a product that would encourage brands to view news as a context aligned with advertisers’ missions and values by altering the ad display format. One is an advisor to a company seeking to make news a more attractive context for advertisers. Table 6 provides an overview of interview participants’ advertising industry experience. Interview transcripts are available in full upon request.

Table 6
Participant Demographics and Advertising Industry Experience

Participant	Gender	Years in Advertising	Industry Experience			Brand/Agency
			Digital Advertising	Advertising Technology	TV Advertising	
Chris	M	10	✓	✓	—	—
David	M	17	✓	✓	—	—
George	M	15	✓	✓	—	—
Kate	F	8	✓	—	✓ (entertainment-focused network)	—
Daniel	M	7	✓	—	✓ (news network)	—
Kelly	F	15	✓	—	—	✓
Matt	M	8	✓	—	—	✓

Note: participant names have been changed to preserve anonymity.

Common Themes

Analyzing the interview transcripts led to the identification of four common themes. The first theme that emerged was that given the rapidly evolving media landscape and changing consumer privacy regulations, contextual targeting provides an opportunity for advertisers as it has the potential to be more effective than existing identity-based targeting approaches. This emerged as participants were skeptical about existing concerns motivating news content avoidance, which, when challenged, reveals opportunities for potentially improved ad performance. Respondents noted a lack of empirical support to date in support of this perspective. This existing inefficiency in the advertising market where an environment that should be attractive to advertisers cannot

monetize its core content, is exemplified by news as a category. A second reoccurring theme was that regardless of potential performance advantages, brands should be incentivized to support high-quality journalism, or more news content, as it is often aligned with their values and brand identity. However, news as a context should be approached by advertisers with caution. Third, the potentially beneficial mindset of individuals consuming news is limited to high-quality, trustworthy news, an important distinction when news is increasingly a form of user-generated content. Lastly, all respondents identified brand safety as the dominant concern perpetuating current news avoidance strategies, suggesting further research extending the outcomes to reflect consumer attitudes and associations is a necessary extension.

All participants identified that the context where ads appear is, and should be, important to advertisers. Given the volume of viable advertising property, the practitioners agreed that it is beneficial for brands to create guardrails to avoid certain content, consistent with the context effect literature to date (Kwon et al. 2019). However, the current implementation of these parameters has broader implications, which David believes are troublesome:

I think that [brands] should be concerned where their ads appear. I think it does matter the types of contexts they appear in, but I think there are some pretty significant issues with how people do brand safety now... The vast majority of the time the way that that's approached is with blocklists and blocklists applied more or less indiscriminately across the inventory that a brand engages with. The problems with that are multitude. Not only does it mean that high-quality content on news sites gets screened out because of the length of the blocklists, but the focus of the current safety tools is for places where they can apply. And I think a lot of the brand damage occurs in places where they can't reach. It occurs within the walled gardens, in environments that are opaque to advertisers inside social environments.

In an effort to avoid certain negative, illicit, or controversial content, news as a category is disproportionately impacted (Seal 2020). Additionally, news avoidance is in some cases unintentionally a by-product of striving to avoid content which is harmful, particularly that which is illegal or beyond the scope of regulation. In the process of seeking to avoid certain

content, advertisers are excluding the opportunity to identify other content which would be advantageous for advertising outcomes. Examining industry attitudes towards advertising in news highlights the inefficiencies of news avoidance strategies. When discussing the overuse of blocklists, David explained that,

The places where they are easiest to apply, namely in programmatic advertising and news, certainly like in open web there's certainly an application for those things to try to make sure that you're not appearing to pornography for instance, but quite a significant percentage of the impressions on hard news are being blocked by these tools, because of... the blunt nature of their approach, and I think that's really damaging to the ecosystem and to the society. I think there are some really perverse incentives to the idea that the more controversial a topic is, the harder it is to monetize.

While the importance of context is not a recent development within advertising, several participants identified specific instances that either were the catalyst for, or justified existing, news avoidance strategies. George discussed the widespread public scrutiny several brands received after their ads aired before YouTube videos of an ISIS beheading in 2015, acknowledging that avoiding certain content is justified. While understanding the public's adverse reaction, the industry action after the fact was questioned by George:

There was kind of this initial stimulus, which was "Okay we don't want to appear next to an ISIS beheading video," which makes complete sense. And then what I think happened was almost imperceptibly people substituted it with we don't want to be in content about things that are happening. And confused that with being in front of the horrible thing that's happening. There's a big difference between even the New York Times article about an ISIS beheading, which you still may or may not want to be next to, but it's a giant gap between that and actually being in front of an ISIS beheading video. And those two got very conflated. I don't think anyone ever really addressed this publicly. It just like, happened. And then and that became now this baseline where everyone was like "you have to, of course, avoid stuff about like racial justice stuff, whatever, because it's controversial." It's like, well yeah, that's news. That's what news is actually, it's controversy effectively. I felt like very few people stepped back and said, "what is this actually? like what exactly is the problem?'. So, it was kind of a weird position to be in.

I was increasingly skeptical about what brand safety is doing in the industry. I still think that brand safety overall and suitability are very important if used correctly. I just don't think that the way it was implemented, kind of in a very like checkbox in a list kind of

thing, led to better outcomes either from an actual brand safety perspective or from just like a performance perspective.

While avoiding controversial or negative content became an increasingly pervasive strategy reflected by the growing number of blocked keywords (Vranica 2019), the scope of the approach highlights the potential of contextual targeting which can be used as a more cost-effective alternative to existing targeting tools. As identity targeting becomes more challenging and resource-intensive given changing industry regulations aimed at protecting consumer privacy, reevaluating existing advertising practices related to context provides an opportunity for advertisers to evaluate the content excluded by their current blocklists.

Contextual targeting as an alternative to identity-based targeting

The ad technology industry has grown rapidly in recent years as measurement metrics have focused on precision and consumer privacy concerns have heightened. While traditionally identity-based targeting has taken priority over contextual targeting, changing regulations surrounding third-party cookies creates opportunities for advertisers to reevaluate their existing targeting strategies, and makes contextual targeting a more efficient alternative. While the impending cookies deprecation currently delayed by Google until the end of 2023 will not eliminate identity-based targeting, it will create opportunities to pursue strategies that are more effective and lower cost, as discussed by Chris.

The thing that's interesting is as these other identity services come into play, how do those incentivize context spend even more. But as identity deprecation becomes a more pervasive problem, that segment is also equally going to be just as difficult to procure from an ID targeting perspective. So, you have this alternative that's going to cost a lot less and that's also going to probably have a higher quality. Contextual relevance is actually just going to be more efficient than using another type of solution. I mean the spend, the cost to do it, is going to be so much lower comparatively. Not that cost is everything, but in an economy where things are turning and it's tough out there, being

able to leverage tools and solutions that allow your dollar to go further, when the spend should be being reined in, will allow the relevancy of your brand will persist.

However, given the many facets of context (De Pelsmacker, Geuens, and Anckaert 2002) and its secondary importance to identity-based targeting in recent years, perspectives related to their potential were largely acknowledged as speculative by the informants, as exemplified by Chris:

I just think there's like a lot of unknowns that contextual relevance is just going to be crucial for, that with a fragmented identity space, is going to make it even harder to capture persons, right? I think the big thing with contextual advertising is capturing that frame of mind, this awareness, and relevancy, and this opportunity to act.

Several practitioners echoed the importance of understanding consumers' "frame of mind," which when identified challenges news avoidance strategies and presents arguments for why news would be a beneficial context for the advertisers. A consumer news mindset-focused explanation also supported David's opposition to the seemingly standardized industry perspective.

I think there's a broad idea that the industry seems to have that being next to hard news is in some way bad for the brand, and I think it's not only a wrong impression, I think it's I think it's incorrect in the wrong direction. I think that there is actually a great benefit to being next to the news, being next to real news. I think there's the level of attention that's being paid is one thing. So, news tends to be a lean-forward environment, people are there because they care about the topic. They're reading the news articles because they matter to them, rarely because they clicked accidentally on something else. But again, this only applies to high-quality trustworthy news, this doesn't apply to like news as an overall category, because there's a lot of stuff in the overall category that I don't think it's good for brands.

News as a context also provides opportunities in that it combines traditional identity-based targeting with the cost and reach advantage of contextual targeting. Discussing both consumers' mindset and traditional demographic measures, George addresses the benefits of news as an ad environment while challenging news avoidance strategies.

And it's weird because not only is it bad just like if you only are focused on the moral and ethical implications, which I was to some extent, but even if you look at the commercial implications, it's not really clear to me why that would be a good strategy. Because

people who read the news tend to be affluent, a lot of these publications are subscription-only, and news is sort of a luxury good. So, you're probably in a certain economic stratus if you are paying for the New York Times, for example. So, a.) you're affluent, b.) you're reading something that you're interested in. There are just a lot of quality indicators from an advertising perspective that are not quite the same as like, I don't know, looking at some blog or whatever. It's just like, your attention quality is lower. So yeah, I just didn't think it made sense on any level, but that was kind of the world we lived in for a bit.

While practitioners suggest there are potential performance advantages related to advertising in news, the social implications of funding news were a reoccurring theme across multiple respondents. Furthermore, practices that result in avoiding news often is often diametrically opposed to brands' core values.

News aligned with brand values

While there is insufficient data to date to validate the benefit of advertising in news from a performance perspective, supporting high quality journalism is often aligned with brands' core values. The disconnect between brands' missions and their advertising investment was highlighted by Chris,

I think is the lip service is there, but the industry, the publishing industry, is going "hey, we're not getting the action from the brands, we're not seeing the money come through. And the bids are so low for that content, that when you look at these top stories, you maybe recognize one out of 20 brands. Everything else is pretty much DTC. Which for those DTC players, they're agnostic to the content. They're buying what's cheap, and so there's not really a natural relevancy for them. I don't think they have the incentive to do it ID-based because they're smaller brands, nobody's heard of them. But they're taking those premium spots from other organizations that would otherwise be a better fit, more natural fits, for that. Am I really aligning my brand, my brand values, with the content that's out there?

When discussing the challenges of monetizing certain divisive and controversial programming, Kate explained that highlighting the disconnect between the advertiser's values and the programming or content was often necessary to monetize programming that, despite attracting

large audiences with strong ratings, was challenging to fill ad slots for due to the divisive nature of the content.

So, in some instances, and for a majority of advertisers, their company mottos, or mission and values that they always have on their websites are usually about inclusivity and positivity. But then, on the back end, they're actually not following that with where they're putting advertising. So, when advertisers would say like “We can't be in that show, we don't want to support that,” we would basically send back their motto and be like “Well, that's super weird because like, your motto is about inclusivity and like the show exemplifies that,” which usually worked, because you are challenging them.

Focusing on the broader social consequences, David explained that the current dynamic between advertisers and publishers has the potential to change the broader media landscape, highlighting the time-sensitive nature of enacting change:

If you can't advertise next to difficult topics that have social value to writing about them, then over time they're going to be written about less. There's going to be less content about this topic. If we as a society want to have reporting on when sexual violence against women is happening, then we have to be able to fund that reporting, and the incentives are all pointing in the other direction.

I think that pressure has only intensified in the past five years or so since we identified this. And I think the situation now is pretty dire, where a lot of major news organizations just can't effectively sell their hard news. They can sell their sports, they can sell their entertainment, but they can't sell their hard news content. And that's a really bad state of affairs. I think that there are other very deep implications that I certainly wouldn't be the first to point to that have been driven by the ecosystem and the way that it works, and the divorcement of programmatic and media. Like the pandering to the algorithm that has overtaken our political discourse, right?

Despite the support for advertising against or near news, many informants simultaneously cautioned that given the evolving media landscape, the potential brand and performance benefits of news as a context are limited to high quality news, a caveat that is especially important with the proliferation of user-generated content.

The importance of news quality with the proliferation of user-generated content

Identifying news as a form of user-generated content highlights the challenging nature of news as a category and informs some caveats to the managerial implications related to findings from our empirical investigation. After discussing advertisers' reactions to controversial comments made by a large news network's hosts both on-air and off as public figures during his tenure at a network, Daniel identifies the challenges of news given that it is user-generated content:

The takeaway is that news is unpredictable, it's live, and it is honestly a form of user-generated content if you think of it from that perspective. It's live, it's not pre-vetted, you don't know what's going to come out of people's mouths, so news is a difficult category to advertise in, but also it garners a lot of attention.

However, to protect news as a favorable advertising context, news publishers and networks should strive to preserve the high-attention, lean-forward genuine interest which attracts consumers initially, and provide journalism that protects and perpetuates this mindset throughout their entire news-consumption experience. While several participants identified brands' responsibility for supporting journalism, the news publishers' responsibility was also a common theme.

Now, I think what happens is if you have reputable news publishers, I think the market will go to them. I do, I do, think that like that's going to be the dynamic. But I also think it would be irresponsible not to mention that there is a high degree of skepticism. I think the root of that question has to go back to the publishers. Are you going to take responsibility for your failings or inability to tell a story? And then, can you get brands on board with that, and if you can't, then are you going to hedge with the subscriptions?

In an environment where "everyone can be a publisher...being mindful that all these publishers make mistakes, like nobody's unscathed," factors distinguishing a high-quality news source from a low-quality news source and the impact on ad performance should be researched to understand the scope of the news advertising premium. In addition to quality, David reiterated the

importance of creating and maintaining a reputation as a trustworthy source of fact-based journalism when discussing the potential news advertising premium on ad performance,

But again, this only applies to high-quality trustworthy news, this doesn't apply to like news as an overall category, because there's a lot of stuff in the overall category that I don't think is good for brands. I think there's about to be a lot more because of artificial intelligence. I think you have to base your engagement on the fat end of the long tail, or I should say the fat end of the distribution of news organizations. And you know, the top news organizations and the high-quality news organizations are the ones getting that engagement.

Brand safety concerns

Just as all informants identified the context that ads appear in as important, brand safety was a reoccurring theme motivating advertisers' news avoidance strategies. For informants on the agency and brand side, brand safety priorities reflected concerns related to negative publicity and potentially creating undesirable associations between the brand and the content. For these participants, the context was viewed as a distraction that detracts from the ad creative, not as a quality indicator.

You just want to keep the brand as safe as you possibly can...As an ad agency, our job is to steward and to protect and to push them into the places that they want to be. And we also need to help them to be gatekeepers and ensuring that they don't go into places that they don't want to be... the last thing we would want is for the campaign to just get disparaging comments because it was next to something that shouldn't have been next to. Like we really want to work to shine and the best place to do that is relevant content, so that just take away from the ultimate message we're trying to get out there.

Like I'm just thinking, even like politics, like you wouldn't want certain brands to maybe get a negative connotation if they're on a certain website, or it's pushed out in a certain way that you were like, "woah, woah, that's not our intention whatsoever". You just want to keep the brand as safe as you possibly can, so that's where a lot of those conversations go.

Concerns related to evaluations of the content tainting evaluations of the advertiser reflecting existing literature on affect transfer. Also called evaluative conditioning or associative learning, it is defined as, "changes to the liking of a stimulus that are due to the fact that the

stimulus has been paired with other, positive or negative stimuli” (De Houwer et al. 2001, p. 853). Affect transfer can occur when two stimuli are viewed in close proximity when one is affectively valenced, and the other is relatively neutrally valenced (Hütter et al. 2012). The two stimuli are not limited to advertising and surrounding content, as affect transfer has been examined in other settings including co-branding and sponsorship. The strength of affect transfer effects differs between mediums, with stronger effects typically identified in lower involvement mediums, such as TV (Norris and Coleman 1992; De Pelsmacker et al. 2002).

Within the scope of advertising in news, the conditioned stimulus is the news content, whereas the relatively unconditioned stimulus is the ad (Sweldens et al., 2010). Furthermore, a prediction in alignment with the affect transfer literature would suggest that a consumer’s evaluation of the news content would be reflected in their evaluation of the ad. As such, if an individual feels negatively about the content of the article, they will have negative attitudes towards the ad and advertiser. While this more cogently applies to perceptual measures related to brand safety, it provides unclear insight as to how the partisan content will affect behavioral ad performance measures. While there is widespread evidence that affect transfer impacts marketing-related outcomes across a variety of mediums and settings, there is less agreement as to the mechanism driving these affect transfer effects (Hofmann et al. 2010).

While the affect transfer literature provides more consistent predictions related to context effects, brand safety concerns were challenged by some informants. While many noted the inefficiency that results from avoiding news contradicts their intuition given their industry experience from a performance perspective; however, the often top-of-mind brand safety they identified as difficult to make sense of given their mental models of context effects in news. Puzzling through the logic in support of brand safety concerns, George stated,

It's one of the areas where I felt the most out of line maybe with what the kind of industry conventional thinking was, I've never been really convinced that even hard news is a bad place for ads. And there are some people who think that and some people who disagree, I would say it's not necessarily the most conventional viewpoint. But in the way I think about it is, you think about something really horrible, like a murder, or rape or something like that like, I don't think, and I don't think there's much evidence even for the fact, that people look at ads next to that and think that you're supporting the actions depicted in the article. It's just kind of nonsensical.

I mean you could even go farther, like you could even say imagine you're an adult website. It's like you decided to go there, so you're probably not going to be that upset to see Bank of America there either. I understand why Bank of America wouldn't want to be there anyway, and that's completely fine, but there is some kind of cognitive dissonance for me in terms of what exactly is the danger in some of these cases when the user has opted into certain publications.

While the informants' ad performance concerns challenged news avoidance strategies, their defense of brand safety concerns varied based on their proximity to advertisers throughout their careers. Additionally, the brand safety concerns that were noted were often anecdotal, namely reflecting isolated incidents of negative publicity received after an ad appeared alongside or near negative content. Even then, the long-term implications on either brand attitudes or performance of these suboptimal ad placements were unclear and lack empirical foundations in the academic literature.

Managerial implications for media, journalism and advertising industries

Collectively the results from the three studies and qualitative investigation have implications for advertisers, news publishers, and ultimately consumers' well-being. Over the past several years, advertisers have moved away from advertising on news media, particularly online where digital advertising tools allow advertisers to easily block certain content. As of 2019, the top keywords blocked included "Dead," "Murder", "Trump," and "Bomb" (Vranica 2019). By 2020, words related to Covid-19, including "pandemic" and "crisis," had joined the

list (Willens 2020). Unsurprisingly, the Interactive Advertising Bureau identified the growing practice of blocking content as being twice as likely to impact news publishers over other content (Seal 2020). Very few research papers have compared genres of media for advertising effectiveness. A few that examine advertisement viewership, vs avoidance, find news performs moderately well (e.g., Kent, Mosley, and Schweidel 2019; Schweidel and Kent 2010). Study 1 in the present research shows that news is actually advantageous for driving interest in the advertised brand, and Studies 2a/b explain that the reason is it attracts an audience with greater information appetites which is beneficial for interest in the brands that advertise. So, advertisers may be harming themselves if they avoid advertising on news due to blocking or categorically deciding against it. By taking news media off the menu, and self-restricting the supply of advertising inventory, advertisers may drive an increased price to advertise on non-news content while it might be less effective due to lower levels of information appetite among the audience of non-news content. We do not find that news is inherently better than non-news, but as long as it attracts an audience with a stronger information appetite then advertisers should value its inventory.

Advertisers still might ask their news media and journalism industry partners to offer guardrails and tone down editorializing negativity. In recent years major brands have been publicly scrutinized for their ads appearing near illicit, untrue, or objectionable content resulting in claims that the brands are supporting, if not funding, the harmful content itself (Hsu and Lutz 2021). Our findings that mood predicts information appetite (Studies 2a/b) and that the effectiveness of advertising on liberal-oriented news channels fell during the results of the 2016 U.S. election that favored Republicans (Study 1) should caution advertisers that the mood of the audience is an important driver of advertising success due to moods impact on information

appetite. While negativity may attract a larger audience, our findings suggest that negativity might make that audience less valuable to advertisers. For advertisers to benefit from media consumers' information-seeking mindset captured by news content, news publishers have a responsibility to retain their audience's trust as well as avoid sensationalizing negative news stories.

There are societal implications of news media and advertisers working to provide trustworthy content that will attract an audience with high information appetites. Without the ability to monetize news content through advertising, news publications will need to cut expenses related to generating high quality news or seek philanthropist funding or alternative revenue models (Gordon et al. 2021). When serving a single philanthropist or particular subscribers and patrons, news becomes more insular and societal fractures risk calcifying. Recently, 79% of publishers identified subscriptions as their most important revenue stream (Kalim 2022). Before the award-winning BuzzFeed News folded due to economic concerns, BuzzFeed CEO Jonah Peretti cautioned in 2017 that "if you're thinking about an electorate and you're thinking about the public and you're thinking about people being informed, the subscription model in media does not help inform the broad public" (as quoted in Thompson 2023). Noting the increasingly divisive and polarizing nature of news perpetuated in a subscription-based environment, one interview participant reiterated the need for reevaluating advertising strategy stating, "I think journalism is the immune system of a functioning democracy, and I think we have a pretty serious autoimmune disease and a couple of different types of cancer at the moment."

Disclaimer

Researchers' own analyses calculated based in part on data from The Nielsen Company (US), LLC and marketing databases provided through the Nielsen Datasets at the Kilts Center for Marketing Data Center at The University of Chicago Booth School of Business. The conclusions drawn from the Nielsen data are those of the researchers and do not reflect the views of Nielsen. Nielsen is not responsible for, had no role in, and was not involved in analyzing and preparing the results reported herein.

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