



Native Advertising in Online News Media: The Role of Sponsorship Disclosures and News Source Credibility

by

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A thesis submitted in fulfillment of the requirements of the
Michigan Ross Senior Thesis Seminar (BA 380), April 24th, 2019.

Abstract

In response to the growth of native advertising and sponsored content on news media websites, the Federal Trade Commission and industry practitioners have provided sponsorship disclosure guidelines for advertisers and publishers to disclose the content's advertising nature. In a between-subjects factorial experiment ($N = 1315$), the effect of both sponsorship disclosure position and the credibility of the news source on consumers' persuasion knowledge and subsequent evaluations of the advertising content were investigated. Results of this study showed that a sponsorship disclosure placed at the bottom of the advertisement resulted in greater disclosure recognition, but amongst those participants that recognized a disclosure, the disclosure placed at the top of the advertisement led to higher activation of conceptual persuasion knowledge (i.e. advertising recognition). Results also indicated that news sources with higher credibility ratings lowered ratings of consumers' attitudinal persuasion knowledge (i.e. critical feelings toward the text) and increased broader positive attitudes towards the content. Implications for advertisers, publishers, and regulators are discussed.

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Introduction

Native advertising refers to “any paid advertising that takes the specific form and appearance of editorial content from the publisher itself” (Wojdyski and Evans, 2016). As of the past decade, this type of advertising has become more and more relevant to the online landscape, which has been predominantly made up of display advertisements. Advertisers believe native advertising may solve traditional display advertising’s biggest challenge: overcoming consumers’ resistance to and avoidance of advertisements (Campbell and Marks, 2015). Beneficiaries of native advertising are primarily brand marketers, advertisers, and publishers alike. From 2016 to 2018, spending by marketers and advertisers on native advertising has risen from \$16.73 billion to \$32.90 billion. Spending is projected to increase to \$41.14 billion in 2019 (eMarketer, 2018). By 2021, native advertising will make up 74% of total ad revenue for website publishers (Boland, 2016). The growth in spending on native advertising lends credence to its advocated capability to engage consumers and indicates it is a strong performer within the digital marketing industry.

Spending and ad revenue from native advertising is widespread across all forms of digital media and the presence is especially pronounced monetarily in the news media industry: 20% of overall advertising revenue for news media organizations came from native advertising in 2017 and estimates from publishers indicate this will rise to 36% by 2021 (The Native Advertising Institute, 2018). A popular type of native advertisement that appears frequently on news media websites is sponsored content – “a text-based message typically embedded in the context of a website and related to the subject matter of the site” (Becker-Olsen, 2003). Thus, there is particular interest in the success of native advertising in the form of sponsored content on the

websites of news publishers; this unique type of native advertising is the context in which this study will focus on exploring.

Despite the rapid acceptance and dissemination of native advertising across the internet, there has been push back by those who herald regulatory concerns about the increasingly blurred boundary between commercial and editorial content on news websites (Boerman and Van Reijmersdal, 2016). These concerns are in response to the purported benefits and aims of native advertising: increased advertising consumption by existing readers of news publications who may be synonymizing advertisement credibility and quality with publisher credibility and quality (Ferrer Conill, 2016). Regulators, academics, and consumer protection groups have identified and begun to inspect the potential deceptiveness and consumer confusion generated by native advertising's immersion into editorial content as a mechanism that may drive its effectiveness (Bakshi, 2014; Wojdyski, 2016). Exploration by independent researchers of the underlying ad processing mechanisms consumers engage in can identify reasons for the effectiveness of native advertising and can provide guidance for best implementation practices by publishers, while also protecting consumers from potential deception.

Sponsorship disclosures accompanying native advertisements have been recommended by regulating bodies as a possible solution to mitigate the potential harm caused by native advertising confusing consumers (Boerman and Van Reijmersdal, 2016). Empirical research has been conducted on the effectiveness of disclosures in engendering advertising recognition and has led to recommendations for disclosure characteristics by regulatory bodies and researchers (Aribarg and Schwartz, 2018; Bakshi, 2014; Federal Trade Commission, 2015; Interactive Advertising Bureau, 2013; Sahni and Nair, 2014; Wojdyski, 2016; Wojdyski and Evans, 2016). Investigation thus far suggests disclosures be placed in an area of the webpage that draws

sufficient visual attention from the consumer and employs labeling with words that are clear and conspicuous (Wojdynski and Evans, 2016). Within the context of native advertising on news publications websites, disclosures have been investigated on advertisements appearing on both the website's home page and the landing page the consumer arrives at after they click on the advertisement on the home page. This study will examine the latter of the two scenarios and aim to investigate the efficacy of implementing recommended disclosure guidelines on the recognition of native advertising appearing in the form of sponsored content.

Most experts agree and state that native advertising that appears in online news media is created to mimic the style, tone, and content of the editorial content that it appears alongside (Carlson, 2015). It can then be thought that advertisers creating native advertisements are hoping that any attachment and positive feelings that a reader may have to that publication will “spillover” to the advertisement when they read it (Van Reijmersdal, Smit, Neijens, 2010; Wojdynski and Golan, 2016). Regarding consumer interaction with persuasive messages, it is believed that a credible media source can positively influence how consumers perceive the message they are viewing (Go et. al, 2014). Thus, the positive feelings consumers associate with a credible news source may also be related to how consumers feel towards the advertisement; however, research to date has been largely concerned with how the placement of native advertising on a news publisher's website may affect the credibility of the publication (Amazeen and Wojdynski, 2018; Wu et. al, 2016). The second purpose of this study is to understand what, if any, effect the credibility of a news source has on consumer attitude towards advertising content. To do so, a comparison will be conducted between advertisements appearing on news sources of differing levels of established credibility. The difference in credibility is defined in the

status of the publication: traditional, legacy publishers are perceived to have higher measures of credibility than digital-only publishers (Amazeen and Wojdyski, 2018).

The link between the two aims of this study is part of a broader aim of native advertising research: to understand how consumers interact with the persuasive nature of the hybrid, and considerably subtle, format of advertising (Carlson, 2015). To help better understand the mechanisms underlying the persuasive nature of native advertising, researchers have employed the Persuasion Knowledge Model (PKM), which states that once consumers recognize a persuasion attempt on them, they will evoke knowledge from prior persuasive attempts they've encountered to evaluate the one they are currently interacting with (Friestad and Wright, 1994). This model is dependent on consumers' recognition of the advertising nature of the content. However, advertising recognition is theoretically less likely for non-traditional formats of advertising, such as native advertising, due to their subtle and embedded nature and reliance on low levels of message elaboration (Rozenaal et. al, 2011). Because of this, research in the advertising literature has extended the theoretical conceptualization of persuasion and advertising knowledge to include instances in which consumers interact with the low message elaboration of non-traditional advertising. This extension has dichotomized the traditional PKM's application to advertising into conceptual and attitudinal persuasion knowledge (Rozenal et al., 2011).

Conceptual persuasion knowledge is concerned with a consumer's recognition and understanding of the persuasive message while attitudinal persuasion knowledge is concerned with the evaluation of the persuasive message (Krouwer et. al 2017). Disclosures ability to bring consumer attention to the advertising nature of content can be expected to increase activation of conceptual persuasion knowledge. This study explicitly engages recommended disclosure characteristics in order to investigate this rationale and provide insight to those who have made

the recommendations in regard to their efficacy. The circumstance in which conceptual persuasion knowledge is activated may lead to the activation of attitudinal persuasion knowledge. Consumer evaluations administered by activation of attitudinal persuasion knowledge are of the source of the message, content of the message, and credibility of the message; however, these evaluations can be affected by prior evaluations of the persuasion agent's credentials and tactics (Wei, Fischer, and Main, 2008). This indicates that consumers attitudes towards a persuasive message may be affected by, among other things, the credibility of the news source on which it is published. Higher source credibility may initiate more positive attitudes during the consumer's advertisement processing than lower source credibility. This study aims to investigate this process through comparison of a legacy news publication with an digital-only publication, where the legacy publication is proven to be relatively more credible than the digital-only publication.

The rise of native advertising in the context of online news is grasping the attention of industry practitioners, regulators, and academics. This research contributes to a growing body investigating the underlying mechanisms and contexts in which native advertisements appear. Of concern in this study is the effectiveness of disclosure characteristics as recommended by regulators and the impact that source credibility of news websites may have on consumers' attitudes towards advertising content. The rest of this document is organized as such: a literature review detailing the relevant prior research on native advertising, sponsorship disclosures, the persuasion knowledge model, and news source credibility, followed by a detailed description of the experimental design for this study. The last four sections of this document detail the results and discussion of the results, as well as limitations of the study and directions for future research.

Literature Review

Native Advertisements

The Interactive Advertising Bureau (IAB), Business Insider, and leading scholars on native advertising have identified and typified six different forms of native advertising. Amongst these types, the two most prominent on news publisher's websites are sponsored links and sponsored posts. Sponsored links refer to partial editorial content that blends into the feed of content on the home page of news website and directs a reader to an external website. However, this study will focus on sponsored posts, in the context of news websites (simultaneously referred to as sponsored content in this text): "originated, complete editorial content...that is created or edited by the advertising department of the publishers in partnership with the brands" (Jiang et. al, 2017). This definition is in recognition of an increasing trend in native advertisement production by news publishers, and in consideration of its status as a growing, meaningful stream of revenue for publishers. A recent 2017 report from the Native Advertising Institute surveyed 231 news media executives from publishers across 51 countries to understand how and to what extent native advertising is integrated into their business model. The survey found that 51% of respondents are already offering native advertisements on their websites and that 92% of respondents believe that native advertising is important to their company. Within the context of the news media alone, native advertising generated 18% of ad revenue, which was up from 11% the previous year, and is forecasted to generate 32% by 2020 (Eliasson, 2017). The stature of the native advertising market gives credence to the purported benefits that native advertising provides to brand marketers, publishers, and audiences and elicits investigation of these benefits.

Effect of Disclosures on Native Advertising Recognition

Academics, publishers, and regulators alike are concerned that the benefits derived from native advertising can be attributed to consumers not recognizing that the content they are viewing on a publisher's website is a paid advertisement (Wojdyski and Golan, 2016). Furthermore, prior research suggests that the confusion viewers are experiencing while viewing native advertising content is also experienced on the home page of news website's where native advertising content is integrated into the layout to appear side by side with editorial content. As a result of the confusion, native advertisements can generate higher click-through rates on advertisements (Aribarg and Schwartz, 2018). Taken together, it is indicative that consumers may not be proficient enough in distinguishing paid content from editorial content, and that such confusion generated by the nature of native advertising can be part of the appeal to advertisers (Sebastian, 2013).

The concern has received warrant from both the Federal Trade Commission (FTC) and industry practitioners, such as the IAB. The FTC has focused on sponsorship disclosures as a means of informing consumers of the advertising nature of the content they are viewing. The FTC's guidelines for disclosures state that the disclosure must be noticed, processed, and understood by consumers in order to be effective at protecting them (Federal Trade Commission, 2015). Similarly, the IAB has taken action to provide self-regulatory measures for advertisers and establish best industry practices for disclosing native advertising. The guidelines instruct advertisers to include disclosures that are clear and conspicuous and use language that accurately conveys information about the paid nature of the advertisement (Interactive Advertising Bureau, 2013). The increased attention paid by regulators, practitioners, and independent researchers to the usage of disclosures as a means of reducing consumer confusion is exhibited in a growing

number of recent empirical studies on the efficacy of disclosures on advertising recognition (e.g. Amazeen and Wojdyski, 2018; Aribarg and Schwartz 2018; Krouwer, Poels, and Paulussen, 2017; Sahni and Nair, 2016; Wojdyski 2016; Wojdyski and Evans 2016).

Before the existence of online native advertising, sponsored content appeared in the form of advertorials on the pages of print publications. Research on disclosures effect on consumers' advertising recognition for advertorials provided a starting point for investigating disclosures for sponsored content. Prior findings indicate that the format of advertorials led to greater involvement with the advertising message, possibly due to readers being fooled by the similar appearances of advertorial and editorial content (Wojdyski and Golan, 2016). This is similar to the concern with online sponsored content today. More importantly, a study on the effectiveness of advertorial disclosure labels found that the presence of labels was not effective in alerting the consumer that the message is indeed an advertisement (Kim, Pasadeos, and Barban, 2001). These findings have inspired continued investigation into disclosure label effectiveness during the transition from traditional print advertorials to their modern-day equivalents in the form native advertisements. Studies conducted on the ability of consumers to view and recognize native advertising disclosure labels have shown mixed results, and a growing number of studies are suggesting that consumers may miss disclosure labels entirely (Wojdyski, 2016). A recent study conducted on the effect of disclosure characteristics on advertising recognition chose disclosure wording, proximity to content, and brand logo as factors due to their high usage in practical settings. This study found low levels of advertising recognition and suggested that the primary problem may be the amount of attention (if any, at all) that consumers pay to disclosures, and that in some cases consumers may be falsely interpreting a disclosure as a display advertisement (Wojdyski, 2016). This suggestion weakens the notion that guidelines for disclosures are

applied appropriately and effectively in practice and implies that the variety of characteristics in disclosures may be an impediment to advertising recognition. Furthermore, this result calls for following studies to continue to investigate the effectiveness of best practice guidelines in order to understand how practical applications of disclosures are recognized by consumers.

The mechanism in which consumers interact with the information disclosures convey occurs in a two-step process. The consumer must first notice the disclosure and must then be able to understand the message it conveys about the content it refers to. Noticing the disclosure may depend on the position of the disclosure itself relative to the advertising content, while understanding the message conveyed can be dependent on the language used in the disclosure (Wojdyski and Evans, 2016). A recent study conducted by Wojdyski and Evans (2016) focused on the importance of visual attention as a significant mediator on the effect of disclosure position on ad recognition. This study demonstrated that between a top-, bottom-, and middle-positioned disclosure, the middle-positioned disclosure was the most effective at garnering visual attention, and thus, ad recognition. Indeed, the findings imply that the FTC recommendations of a top-positioned disclosure may not be the most effective in engendering ad recognition on behalf of the consumer. In addition to disclosure position, the same study investigated the effectiveness of different disclosure wordings on ad recognition. The findings suggest that the use of clear language, such as “sponsored” or “advertising”, in the disclosure rather than nebulous or vague language resulted in greater advertising recognition. However, this study found a low level of advertising recognition (7% of participants), suggesting that the effect of disclosures on advertising recognition warrants further investigation and “attention of policymakers because such findings are central to the FTC’s overall mission, which is to create a more informed consumer” (Wojdyski and Evans, 2016). This study aims to further investigation

into the efficacy of proposed disclosure guidelines, specifically focusing on sponsorship disclosure position, while holding constant other recommended characteristics.

Persuasion Knowledge Model

A central tenet of native advertising in online news is that it seamlessly merge into the experience of the website filled with editorial content that users already. This tenet makes native advertising a form of covert marketing, which relies, to an extent, on the consumer not recognizing the persuasive intent of the advertising message. In fact, messages delivered through sponsored content do often utilize persuasive intent and it has been found that user's ability to recognize the persuasive intent of sponsored content can be limited (Tutaj and Van Reijmersdal, 2012; Wojdyski, 2016). This may be attributed to sponsored content's congruency to editorial content – it has been shown that increased levels of congruency between the brand and media source in which the marketing tactic is embedded in can reduce the chances that the consumer is alerted that what they are viewing is a persuasive message (Wei, Fischer, and Main, 2008). Regulating bodies and parties interested in protecting consumers uphold the principle that the commercial nature of advertising content should be fairly communicated in order to avoid such limitations (Boerman et al., 2012). To understand the underlying advertisement processing mechanisms, such as the extent to which consumers recognize, understand, and evaluate the persuasive intent anchored in native advertising, researchers have employed the theoretical Persuasion Knowledge Model (PKM). The PKM states that people's ability to cope with the persuasive intent of an advertisement is dependent on their prior knowledge and interactions with persuasive messages (Friestad and Wright, 1994).

A key emphasis in the PKM is that a consumer's ability to interpret and evaluate persuasive intent using their prior developed knowledge of persuasion is predicated on them

recognizing the message as persuasive (Friestad and Wright, 1994). In the context of sponsored content, the question derived from this emphasis is to what extent does the activation of persuasion knowledge impact the subsequent evaluation of content? To answer this question researchers are reliant on demonstrating the first and most important step: consumers recognizing the persuasive intent of the advertisement. However, the non-traditional format of sponsored content reduces the level of message elaboration it conveys to consumers advertising, and in cases of low message elaboration it may be difficult for consumers to achieve this first step. The low level of message elaboration demonstrated by sponsored content is due to its subtle nature and embedded state in a news media website. In cases where advertisements are categorized as having low levels of message elaboration, investigation using the application of the PKM is best suited to be separated into conceptual persuasion knowledge and attitudinal persuasion knowledge (Rozendal et al., 2011). In regard to native advertising, conceptual persuasion knowledge is the extent to which consumers are able to recognize the persuasion attempt, while attitudinal persuasion knowledge assesses consumers' critical processing and feelings toward the persuasion attempt (Krouwer et. al 2017).

The effect of sponsorship disclosure on both conceptual and attitudinal persuasion knowledge has been investigated in the context of television programs, where it was demonstrated that disclosures lead to activation of conceptual persuasion knowledge (Boerman et al., 2012). Such activation is synonymous with advertising recognition in the advertising literature. It was then shown that activation of conceptual persuasion knowledge led indirectly to activation of attitudinal persuasion knowledge. Conceptually, this finding elicits the notion that activation of conceptual persuasion knowledge may be the first occurrence for a consumer viewing a persuasive advertisement, and attitudinal persuasion knowledge may be a subsequent

activation. When this is the case, activation of conceptual persuasion knowledge has a positive effect on the activation of attitudinal persuasion knowledge – the greater the extent to which conceptual persuasion knowledge is activated, the more likely consumers are to evaluate the persuasive message critically (i.e. greater activation of attitudinal persuasion knowledge). In the context of native advertising, sponsorship disclosure has only been explicitly shown to positively affect activation of conceptual persuasion knowledge (Wojdynski, 2016). This is an encouraging sign for regulators because it indicates that disclosures may help consumers increase their advertising recognition. However, the varying degree of characteristics seen in native advertising disclosures indicate that guidelines are interpreted differently among publishers and that there is no consensus about which disclosure operates best. In light of this, further investigation is warranted into the effectiveness of all recommended disclosure characteristics on the activation of conceptual persuasion knowledge.

Empirical evidence indicates that the ability of a disclosure to generate advertising recognition based on its position relative to the advertisement is contradictory to the recommendations of the FTC. The FTC has recommended a top-positioned disclosure as best practice to ensure advertising recognition, while evidence demonstrates a top-positioned disclosure only led to 2 of 81 participants recognizing the advertisement (Evans and Wojdynski, 2016). The same study indicated that a middle-positioned disclosure performs best, and this may be because it sticks out most prominently to consumers. This may not be desired by advertisers who wish to maintain some subtlety in their advertising. This consideration leaves top- and bottom-positioned disclosures as the two most likely implementable options for advertisers. While holding constant the other recommended sponsorship disclosure characteristics, such as wording (“Sponsored content presented by...”), font color and size, and contextual contrast, a

top-positioned disclosure is expected to lead to higher levels of conceptual persuasion knowledge. This prediction is presented below in the first hypothesis for this study, H1:

H1: Top-positioned sponsorship disclosures will have a positive main effect on conceptual persuasion knowledge.

Source Credibility in Native Advertising

The advertising landscape for news publications is swiftly changing in two ways: 1) more spending dollars are being shifted away from display advertising and towards native advertising, and 2) more publishing platforms exist advertisers to partner with such as blogs, niche publications, and digital-only publications (Bakshi, 2014). The low fixed costs and minimal capital startup requirements for digital-only publishers have resulted in a proliferation of the platform. Such publications largely do not benefit from the long-standing credibility and reputational capital that legacy publishers have amassed; however, a minimal reputation may mean that these publications can be less risk-averse when contracting advertisements for their site. As a result, digital-only publications have become strong embracers of native advertising.

The tailored brand messages that are published on the same website as standard legacy news content, such as *The New York Times* or *The Wall Street Journal* follow the same format, style, and tone that is typical of that medium (Matteo and Dal Zotto, 2015). This is in concurrence with the definition that Wojdyski and Golan (2016) have ascribed to native advertising: “the practice by which a marketer borrows from the credibility of a content publisher by presenting paid content with a format and location that matches the publisher’s original content”. There are increased observations of advertisers working with in-house content studios

launched by national news publishers to create engaging, branded journalistic content. These observations provide support for the notion that advertisers may have much to gain from the credibility of the news source that they work with to publish their advertisement (Ferrer Conill, 2016). In addition, qualitative research conducted among 22 professionals from across the advertising spectrum (brands, agencies, and publishers) called for a need to investigate features of the environment in which an ad is placed. This is based on the notion that an important feature for advertisers to leverage when placing native advertisements is the anticipated spillover of credibility from the editorial content to the advertisement (Harms, Bijmolt, and Hoekstra, 2017).

Credibility varies across news publications both quantitatively based on how long it's been in print and how many people subscribe to it, and qualitatively based on perceived expertise and bias (Wu et. al, 2016). It is reasonable then to believe that the nuanced levels of news publication credibility may have an effect on the native advertising that appears within its domain. In fact, the distinction to be made between the credibility of the two types of publications noted by Bakshi (2014) has been tested before. A pretest to an empirical study investigating native advertisements on legacy publications vs online-only publications indicated that respondents view *The Wall Street Journal* as a credible and trustworthy news source while also suggesting that a digital only news publisher may not benefit from the same credibility that a recognized, legacy publisher such as *The Wall Street Journal* does (Amazeen and Wojdyski, 2016). As a preliminary result, these findings indicate that there does indeed exist a difference between the perceived credibility of traditional legacy publications and digital-only publications. Furthermore, in the advertising literature, source credibility has been shown to be a peripheral cue for readers to assess an advertisement, and to ultimately have a positive effect on attitudes towards an advertisement (Gotlieb and Sarel, 1991). It is of interest to this study to try and

extend the findings of source credibility's effect on attitudes to the attitudinal dimension of persuasion knowledge. Based on previous findings, it is predicted that a news source with a higher level of credibility will lower consumer activation of attitudinal persuasion knowledge and diminish critical feelings towards the advertisement. The distinguishable difference between the credibility of a legacy news publication and an online-only news publication will be used as the basis to test this effect. The predicted effect of news source credibility on attitudinal persuasion is presented below in the second hypothesis of this study, H2:

H2: News source credibility has a negative main effect on attitudinal persuasion knowledge

Activation of conceptual persuasion knowledge has been shown to subsequently lead to attitudinal persuasion knowledge, and the greater extent to which conceptual persuasion knowledge has been activated, the greater extent to which attitudinal persuasion knowledge is activated. Indeed, higher levels of conceptual persuasion have also been shown to lead to more negative evaluations of the advertisement, the advertiser, and the publisher (Wojdyski, 2016). These findings indicate that advertising recognition may have an effect on subsequent consumer attitudes and evaluations. It is of interest to this study to then understand if higher levels of conceptual persuasion knowledge can influence the effect peripheral cues, such as source credibility, have on attitudinal persuasion knowledge. It is thought that as conceptual persuasion knowledge increases and consumers have higher levels of advertising recognition, they will become more aware of characteristics of the advertisement, such as the news source that has published the advertisement. Increased awareness of the news publisher's relation to the

advertisement may bring the publisher into the spotlight and diminish the favorable role that it may play as a peripheral cue. Thus, the effect of the news publisher's credibility on the activation of consumers' attitudinal persuasion knowledge may be opposite under higher levels of conceptual persuasion knowledge. This predicted moderating effect of conceptual persuasion knowledge on attitudinal persuasion knowledge is presented below in the third hypothesis of this study, H3:

H3: Conceptual persuasion knowledge has a negative moderating effect on attitudinal persuasion knowledge.

Method

Experimental Design

Study Design. To test the proposed hypotheses, which are summarized in Figure 1, this study used a 2 (disclosure position: top vs. bottom) x 2 (source credibility: high vs. low) x 4 (brand: IBM, LG, Purina, WEX) factorial between-subjects experiment, participants were asked to read an online article about connected cars, artificial intelligence, pet food science, or open-source technology, and answer dependent measures about the advertising nature of the content, their attitude towards the text, and their perceptions of the news source the article was embedded in. Participants were systematically assigned to view one of 16 versions of a target native advertisement appearing on a news publisher's website. Using Qualtrics survey flow, each participant was carried through three stages of randomization to get to the article condition they were presented. The first stage was to randomly assign a participant to be in a high (*New York Times*) or low (*Vox*) source credibility condition. The second stage was to randomly assign a

participant to be in one of the four brand conditions: IBM, LG, Purina, or WEX. The third, and last, stage was to randomly assign a participant to view an article with a top-positioned or bottom-positioned disclosure. This method of assignment was chosen in order to ensure that an appropriate number of participants were assigned to each of the 16 conditions. The design is diagrammed in Table 1.

News Source Credibility	Sponsorship Disclosure Position	Brand: IBM Title: ‘Open source technology will influence the future of cloud’	Brand: LG Title: ‘How AI is making our lives easier’	Brand: Purina Title: ‘The real science behind your pet’s food’	Brand: WEX Title: ‘Connected car technology is expected to change the driving experience – here’s how’
High (<i>New York Times</i>)	Top	n = 81	n = 83	n = 83	n = 80
	Bottom	n = 81	n = 82	n = 84	n = 83
Low (<i>Vox</i>)	Top	n = 78	n = 84	n = 82	n = 80
	Bottom	n = 82	n = 85	n = 83	n = 84
Totals		n = 322	n = 334	n = 330	n = 327

Table 1: Study Design (N = 1315)

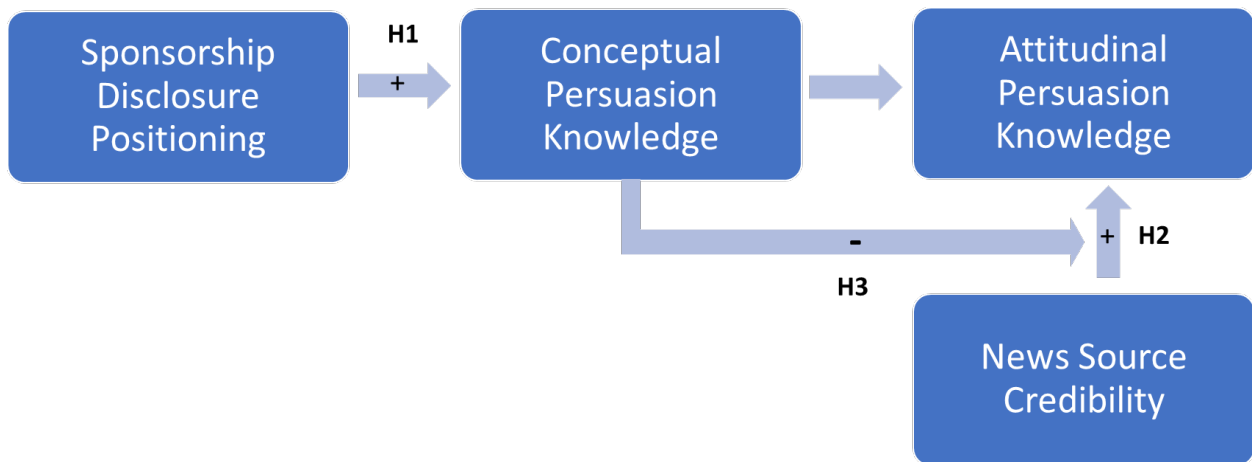


Figure 1: Study Model and Hypotheses

Participants. A total of 1460 adult U.S. residents were recruited for participation via Amazon Mechanical Turk, a web-based human intelligence task market. All participants were asked to complete the survey on a desktop or laptop computer – mobile responses were prevented in order to ensure a quality study experience for all participants. Out of those 1460 participants, 1392 (95.3%) consented to participate in the study. 64 responses regarding consent were missing and four responded that they did not wish to consent. From the 1392 participants that consented to participate, 1315 successfully finished the survey. This was the number used for the sample size, *N*. Participants came from all age groups surveyed in the study, ranging from 18-25 years old to 65+ years old. The largest number of participants came from the age group 26-35 years old (523, 39.8%), while the smallest number of participants came from the age group 65+ years old (35, 2.7%). 54.8% of participants were male. Participants varied in highest completed level of education (2.3% Doctoral degree, 15.4% Master’s degree, 40.7% Bachelor’s degree, 10.2% Associate’s degree, 3.3% Vocational degree, 18.3% Some college credit, and 9.7% High School degree), while no question surveying ethnicity was asked of participants. A full breakdown of participant demographics collected from the survey can be found in the Appendix (Exhibit A).

Stimulus Materials. Four main stimuli based upon actual native advertisements sourced from the Internet were generated through Photoshop for the experiment. The first main stimulus was produced by Business Insider, titled ‘Open source technology will influence the future of cloud’, and sponsored by IBM. This native advertisement was 714 words in length. The second stimulus was produced by Brandpoint, titled ‘Open source technology will influence the future of cloud’, and sponsored by LG. This native advertisement was 650 words in length. The third stimulus was produced by Brandpoint, titled ‘The real science behind your pet’s food’, and sponsored by Purina. The native advertisement was 643 words in length. The fourth stimulus was

produced by Business Insider, titled ‘Connected-car technology is expected to change the driving experience — here's how’, and sponsored by WEX. The native advertisement was 881 words in length. Interest and enjoyment were the main criteria used to select the four native advertisements and were subjectively assessed by the researcher in preparing the study (Amazeen and Wojdyski, 2018). In addition, three native advertisements were intentionally selected to be sponsored by highly recognizable brands (IBM, LG, and Purina), while the fourth was intentionally selected to be sponsored by a less recognizable brand (WEX). A survey question regarding this manipulation check was included in the survey.

Four conditions were generated for each of the main stimuli, and in each condition the article stimulus was identical except for the two different criteria that it was varied on: sponsorship disclosure position and news source credibility. *Sponsorship disclosure position* had two variations based upon the position of the disclosure. In the top condition, the disclosure was placed underneath the title and by-line of the article and above the text of the article. In the bottom condition, the disclosure was placed after the text of the article and above the footer of the website. Each disclosure read “Sponsored content produced by (brand)”. The text of the disclosure was black (hex code #000000) bold 30-point Arial font and on a light blue colored rectangular background (hex code #abdbff). *News source credibility* had two variations based upon which news source the native advertisement was embedded in. The two variations were manipulated by embedding the article within a content page from *New York Times* for the high source credibility condition and in a content page from *Vox* for the low source credibility condition. The font for articles embedded in the *New York Times* content page was black regular Georgia 30-point font and was chosen to imitate the font used in articles on the *New York Times* website. The font for articles embedded in the *Vox.com* content page was black regular Helvetica

30-point font and was chosen to imitate the font used in articles on the *Vox* website. An example of the four conditions for the native advertisement produced by Business Insider and sponsored by IBM can be found in the Appendix (Exhibit B).

Procedure. Participants accessed the study via a link provided in an online bulletin posted on Amazon Mechanical Turk. Upon clicking on the link, participants were introduced to the study and provided information about its purpose and aims. Following the introduction, participants were asked to provide informed consent to participate in the study. After providing informed consent, participants were presented a question asking, “In the past 3 months, how often have you read a news article online?” in order to gather a measure of the participants’ familiarity with online news articles. Next, participants were presented a full-size screenshot of the native advertisement article embedded in the news publisher’s website and instructions to “Please read the following as you normally would online:”. After participants finished reading the article, they were directed to a series of questions intended to measure control variables, dependent variables, and manipulations. Participants completed in order, measures of news publisher familiarity, brand familiarity, conceptual persuasion knowledge, understanding of persuasive and selling intent, attitudinal persuasion knowledge, attitude towards the text, source recall, news publisher credibility, and disclosure recognition. Following those questions, participants completed three demographic questions regarding age, gender, and highest level of education.

Dependent Measures

Conceptual Persuasion Knowledge was measured using two 7-point Likert-scale items (Krouwer, Poels, Paulussen, 2017). Participants answered two statements about the text, each starting with “To what extent is the text...” (a commercial text, provided by an advertiser) on a

scale ranging from *Strongly disagree (1)* to *Strongly agree (7)*. The two items were averaged to form a single measure that represents conceptual persuasion knowledge ($M = 5.14$, $SD = 1.49$, $\alpha = 0.772$). The two items were also subject to Principal Components Analysis (PCA), which showed that the two items loaded onto a single factor (eigenvalue = 1.63), which explained 81.60% of the variance in the two items.

Understanding of Persuasive and Selling Intent was measured using six 7-point Likert scale items (Tutaj and Van Reijmersdal, 2012). Participants answered six statements about the text, each starting with “Please indicate to what extent you agree with the following statements:”, on a scale ranging from *Strongly disagree (1)* to *Strongly agree (7)*. Two items referred to selling intent: 1) “The aim of this text is to sell products/services” and 2) “The aim of this text is to stimulate the sales of products/services”. Two items referred to persuasive intent: 3) “The aim of this text is to influence your opinion” and 4) “The aim of this text is to make people like certain products/services”. Two additional items were included that referred to the informational intent: 5) “The aim of this text is to give information about products/services” and 6) “The aim of this text is to let people know more about the products/services”. The six items were subject to PCA, which showed that the first four items measuring selling and persuasive intent loaded onto a single factor (eigenvalue = 3.33), which explained 55.47% of the variance in the six items. PCA also showed that the last two items that were intended to measure informational intent loaded onto a second factor (eigenvalue = 1.57), which explained 26.17% of the variance in the six items. The first four items were averaged to form a single measure of understanding of persuasive and selling intent ($M = 5.26$, $SD = 1.31$, $\alpha = .899$).

Attitudinal Persuasion Knowledge was measured using five 7-point Likert scale items (Boerman et. al, 2012). Participants answered five statements about the text, each starting with “I

think the article was..." (honest, trustworthy, convincing, biased, not credible) on a scale ranging from *Strongly disagree (1)* to *Strongly agree (7)*. Scales for "honest", "trustworthy", and "convincing" were reversed to ensure each question was measured in the same direction. One additional measure was asked of participants as an attention check during this section of the survey: "Please choose somewhat agree" – 1234 participants correctly chose this option (93.6%). The five items were subject to PCA, which showed that the five items loaded onto a single factor (eigenvalue = 3.26), which explained 65.22% of the variance in the five items. The five items were averaged to form a single measure of attitudinal persuasion knowledge ($M = 4.44$, $SD = 1.23$, $\alpha = 0.856$).

Attitude towards the text was measured using five five-point Semantic scale items (Krouwer, Poels, Paulussen, 2017). Participants viewed a statement instructing them to "Please indicate your overall reaction to the text:" based on the following five bi-polar statements (*Bad/Good, Unpleasant/Pleasant, Unfavorable/Favorable, Irritating/Not Irritating, Not Interesting/Interesting*). The five items were subject to PCA, which showed that the five items loaded onto a single factor (eigenvalue = 3.89), which explained 77.76% of the variance in the five items. The five items were averaged to form a single measure of attitude towards the text ($M = 3.55$, $SD = 1.01$, $\alpha = 0.924$).

Control Measures

Two control variables were measured to make sure that the effects of disclosure position and source credibility were not caused by other differences between the experimental groups. To measure *brand familiarity*, participants were asked "To what extent are you familiar with the brand..." (IBM, LG, Purina, and WEX) on a scale ranging from *Not familiar (1)* to *Very familiar (7)*. An ANOVA test was carried out for each of the two sponsorship disclosure types (top,

bottom) to see if there was a significant difference in familiarity ratings between the groups of participants who viewed each of the four brands. For those who were in a top-positioned disclosure condition, the results showed that there is a significant difference in the brand familiarity rating, on average, between groups $F(3, 647) = 266.51, p < 0.05$. 95% confidence intervals were carried out post-hoc using Tukey's procedure to determine which groups were significantly different from the others: familiarity ratings, on average, were lower for WEX when compared to IBM, LG, and Purina, respectively. There was no significant difference between familiarity ratings for those who viewed IBM, LG, or Purina sponsored articles. For those who were in a bottom-positioned disclosure condition, the results showed that there is a significant difference in the brand familiarity rating, on average, between groups $F(3, 660) = 240.21, p < 0.05$. 95% confidence intervals were carried out post-hoc using Tukey's procedure to determine which groups were significantly different from the others: familiarity ratings, on average, were lower for WEX when compared to IBM, LG, and Purina, respectively. There was no significant difference between familiarity ratings for those who viewed IBM, LG, or Purina sponsored articles. To measure *news source familiarity*, participants were asked, "In the past three months, how often have you read..." (*New York Times, Vox*) and provided nine response options ('every day', '4-6 times a week', '2-3 times a week', 'once a week', 'once every two weeks', 'once every month', 'only once', 'never', or 'other (please specify):'). A Chi-Squared test was carried out to determine if there was a significant difference in frequency of readership across the two sponsorship disclosure conditions. For those who viewed the condition of an article embedded into *The New York Times* website layout, the results showed that there is no significant difference in reading frequency between the two groups based on sponsorship disclosure condition $\chi^2(8) = 3.58, p\text{-value} = 0.893$. For those who viewed the condition of an article embedded in the *Vox*

website layout, the results showed that there is no significant difference in reading frequency between the two groups based on sponsorship disclosure condition $\chi^2(8) = 5.70$, $p\text{-value} = 0.681$.

Results

Manipulation Check: Disclosure Recognition

To check the sponsorship disclosure manipulation, participants were first told that the article they've read is an advertisement in the form of sponsored content and were then asked to respond yes or no to the following statement: "The article is supposed to be accompanied by a disclosure stating it is sponsored: did you notice one?". Participants then completed the following statement: "If you noticed the disclosure, please indicate where it appeared:" with the options being 1) "Underneath the title of the article", 2) "At the bottom of the article", and 3) "I do not remember". 759 (57.5%) participants indicated that they noticed a disclosure, however, only 596 (45.2%) participants from this group were correctly able to identify the location of the disclosure. A logistic regression was performed to ascertain the effect of sponsorship disclosure position on correctly noticing the location of the disclosure. The logistic regression model was statistically significant $\chi^2 = 52.24$, $p = 0.000$, Nagelkerke $R^2 = 0.052$, indicating that correct disclosure recognition significantly differed based on disclosure location. Participants in bottom-positioned disclosure conditions were significantly more likely to correctly recognize the disclosure: $\beta = 0.810$, $\text{Wald} = 51.225$, $p = 0.000$. Thus, while holding the characteristics of the sponsorship disclosure constant, the bottom-positioned disclosure is noticed more than the top-positioned disclosure. The results indicate that the manipulation of the sponsorship disclosure location was successfully noticed by participants in the study, although a smaller group of participants noticed the disclosure in the recommended top position. Correct recognition of

sponsorship disclosure position is detailed by experimental condition in Table 2 and by news source layout the article was embedded in Figure 2.

News Source Credibility	Sponsorship Disclosure Position	Brand: IBM Title: ‘Open source technology will influence the future of cloud’	Brand: LG Title: ‘How AI is making our lives easier’	Brand: Purina Title: ‘The real science behind your pet’s food’	Brand: WEX Title: ‘Connected car technology is expected to change the driving experience – here’s how’
High (<i>New York Times</i>)	Top	Yes = 56	Yes = 46	Yes = 34	Yes = 35
	Bottom	Yes = 52	Yes = 35	Yes = 49	Yes = 44
Low (<i>Vox</i>)	Top	Yes = 53	Yes = 19	Yes = 29	Yes = 26
	Bottom	Yes = 42	Yes = 42	Yes = 51	Yes = 39

Table 2: Sponsorship Disclosure Recognition Based on Position and News Source

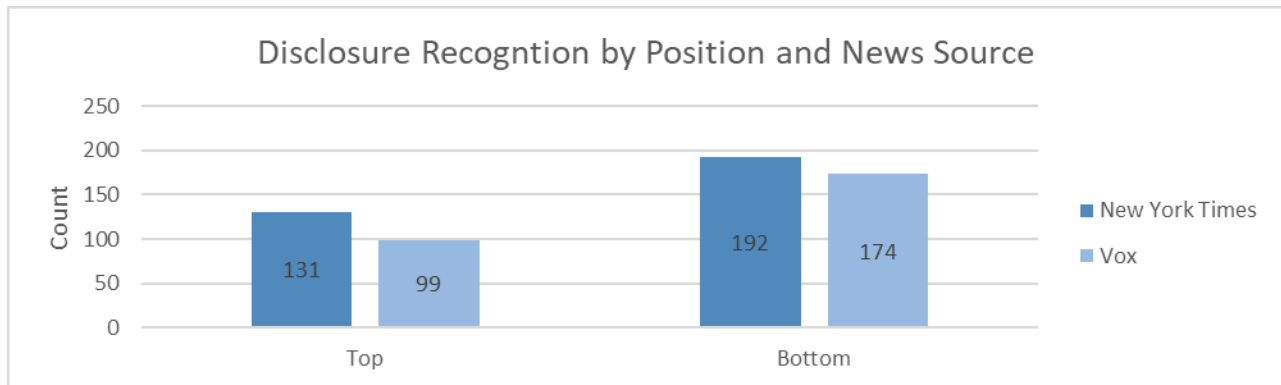


Figure 2: Disclosure Recognition by Position and News Source

Manipulation Check: News Source Credibility

The four native advertisements that were the main stimuli in the experiment were embedded in a webpage that was designed to be like *The New York Times* or *Vox*, with the two

news publishers chosen based on the distinction that *The New York Times* is a legacy publisher and therefore predicted to have relatively more credibility and *Vox* is an online-only publisher and therefore predicted to have less credibility relative to *The New York Times*. First a recall measure was used to determine if participants were able to correctly remember the website layout of the news source that their article was embedded in. Participants were asked towards the end of the survey “Which of the following news websites produced the article that you’ve just read:” with the options being 1) *USA Today*, 2) *CNN*, 3) *The New York Times*, 4) *The Wall Street Journal*, 5) *Vox*, or 6) Other (please specify). Overall, 1236 (94%) of participants were able to correctly recall the news source for their condition. 612 (93.2%) participants who were in *The New York Times* condition were able to correctly recall the news source for their condition, while 624 (94.8%) participants who were in the *Vox* condition were able to correctly recall the news source for their condition. A Chi-squared test was carried out to see if these two proportions significantly differed. The results indicate that there is no difference between the proportion of participants who were able to correctly recall the source of their condition ($\chi^2(1) = 1.69$, p-value = 0.194).

After being asked to recall the news source for their condition, participants were asked to rate the credibility of the news source. To measure the credibility of each news source, participants responded to five 7-point Likert scale items (Krouwer and Poels, 2017). Participants were asked to what extent they agreed with the following five statements that all began with “The news website the article is published on is...” (factual, concerned about making profits, invading people’s privacy, concerned about the community’s well-being, cannot be trusted) on a scale ranging from *Strongly disagree (1)* to *Strongly agree (7)*. The following items were reverse coded to achieve word polarity: concerned about making profits, invading people’s privacy, and

cannot be trusted. The five items were subject to PCA, which showed that the five items loaded onto a single factor (eigenvalue = 2.316), which explained 46.33% of the variance in the five items. The five items were averaged to form a single measure of credibility of the news source ($M = 4.41$, $SD = 0.67$, $\alpha = 0.697$). Regression analysis was conducted to determine if news source (*New York Times* or *Vox*) is a significant predictor of the single measure representing source credibility. Participants who were in the *New York Times* condition were more likely to rate the news website that the native advertisement appeared on as credible ($\beta = 0.100$, $t(1311) = 2.703$, $p = 0.007$). The linear regression analysis showed that news publisher source accounted for 0.5% ($R^2 = 0.005$) of the total variance in source credibility. This analysis indicates that the manipulation of source credibility that was based on which news website the native advertisement appeared embedded in was successful.

Effects of Sponsorship Disclosure Position

Hypothesis 1 was examined using linear regression, which included sponsorship disclosure position as a binary independent variable and conceptual persuasion knowledge as the dependent variable. The regression was conducted using the subset of participants that were found to have correctly noticed the position of the disclosure ($n = 596$). The results showed that, while controlling for the brand sponsoring the article which the participant viewed (IBM, LG, Purina, or WEX), participants familiarity with the brand, and the news source in which the article was embedded, sponsorship disclosure position had a significant effect on conceptual persuasion knowledge ($\beta = 0.220$, $t(589) = 2.228$, $p < 0.05$). The positive coefficient for sponsorship disclosure position indicates that participants who viewed a top-positioned sponsorship disclosure had a higher rating, on average, of their conceptual persuasion knowledge than participants who viewed a bottom-positioned sponsorship disclosure condition.

Hypothesis 1 was tested using an averaged measure of two statements used to determine advertising recognition and based on the notion from the advertising literature that activation of conceptual persuasion knowledge is synonymous with advertising recognition (Boerman et. al, 2012). However, advertising recognition is only one element of persuasion knowledge in the advertising literature – an additional element of interest in relation to the possible effect of sponsorship disclosure characteristics is *understanding of persuasive and selling intent* (Tutaj and Van Reijmersdal, 2012). The effect of sponsorship disclosure position was measured using a linear regression with disclosure position as a binary independent variable and the averaged measure of understanding of persuasive and selling intent as the dependent variable. The same subset of participants who correctly noticed the disclosure were used in measuring the effect of sponsorship disclosure position. The results show that, while controlling for the brand sponsoring the article which the participant viewed (IBM, LG, Purina, or WEX), participants familiarity with the brand, and the news source in which the article was embedded, sponsorship disclosure position did not have a significant effect on understanding of persuasive and selling intent ($\beta = 0.018$, $t(589) = 0.27$, $p > 0.05$). These results indicate that, although conceptual persuasion knowledge and understanding of persuasive and selling intent are positively correlated ($r = 0.657$, $p < 0.01$), the position of the sponsorship disclosure only has a significant effect on the participants advertising recognition, and not their understanding that the advertiser is trying to sell products and influence their behavior (Rozendaal et. al, 2011). Overall, it was found that the subset of participants who did notice the disclosure had higher ratings of understanding of persuasive and selling intent than those who did not notice the disclosure (M (noticed) = 5.78, M (did not noticed) = 4.82) and was found to be significantly different ($t(1315) = -14.247$, $p < 0.001$).

The manipulation check for the position of the sponsorship disclosure resulted in there being a significantly different proportion of participants correctly noticing the sponsorship disclosure when it was positioned at the top of the advertisement rather than the bottom. The effect of correctly noticing the position of the disclosure on the four dependent variables of interest (conceptual persuasion knowledge, understanding of persuasive and selling intent, attitudinal persuasion knowledge, attitude towards the text) and source credibility were measured and detailed in Table 3.

Dependent Variable	Disclosure Recognition	Mean	Standard Deviation	t
Conceptual Persuasion Knowledge	Yes = 596 No = 718	5.80 4.60	1.18 1.49	t(1312) = 15.978***
Understanding of Persuasive and Selling Intent	Yes = 596 No = 718	5.78 4.82	1.04 1.34	t(1312) = 14.247***
Attitudinal Persuasion Knowledge	Yes = 596 No = 717	3.92 3.26	1.29 1.10	t(1311) = 10.031***
Attitude Towards the Text	Yes = 596 No = 717	3.34 3.73	1.06 0.92	t(1311) = 7.014***
Source Credibility	Yes = 596 No = 717	4.33 4.48	0.69 0.65	t(1311) = 4.159

Note. * $p < .05$ ** $p < 0.01$ *** $p < 0.001$

Table 3: Effects of Disclosure Recognition on Dependent Measures

Effects of News Source Credibility

Hypothesis 2 was examined using linear regression. The averaged measure of source credibility was used as an independent variable in the regression and the averaged measure of attitudinal persuasion knowledge was used as the dependent variable. While controlling for the brand sponsoring the article which the participant viewed and participants familiarity with that brand, as well as disclosure position and news source the article was embedded in, the results indicated that the effect of source credibility on attitudinal persuasion knowledge is significant ($\beta = -1.050$, $t(588) = -16.983$, $p < 0.001$). The lower the average rating for a participant's attitudinal persuasion knowledge, the less critical the participant is considered to be of the persuasive message they are interacting with (Boerman et. al, 2012). The negative coefficient for source credibility indicates that as the credibility of the news source credibility increases, participants rating of attitudinal persuasion knowledge decreases, on average.

Participant's attitude towards the text was also measured to understand, in general, how participants respond and react to reading articles that are indeed advertisements sponsored, and often written, by brands. To observe the effect of source credibility on the averaged measure of participant's attitude toward the text a linear regression with source credibility as an independent variable and the averaged measure of attitude toward the text as a dependent variable was carried out. While controlling for the brand sponsoring the article which the participant viewed and participants familiarity with that brand, as well as disclosure position and news source the article was embedded in, source credibility was found to have a significant effect on participant's attitude toward the text ($\beta = 0.722$, $t(588) = 13.071$, $p < 0.001$). The positive coefficient for source credibility indicates that as the credibility of the news source credibility increases, participants rating of their attitude towards the text increases, on average. The measures of

attitudinal persuasion knowledge and attitudes towards the text were found to be negatively correlated ($r = -0.754, p < 0.01$). This means that as attitudinal persuasion knowledge increases, that is, as participants' critical feelings towards the text increase, their attitude towards the text becomes less positive. Thus, source credibility is shown to have a significant effect on attitudes of consumers within the persuasion knowledge model and outside of the persuasion knowledge model.

Moderating Effect of Conceptual Persuasion Knowledge

Hypothesis 3 was examined using linear regression. The averaged measures of source credibility and conceptual persuasion knowledge were used as independent variables in the regression and the averaged measure of attitudinal persuasion knowledge was used as the dependent variable. An interaction effect between source credibility and conceptual persuasion knowledge was calculated and included in the regression analysis. While controlling for the brand sponsoring the article and participants' familiarity towards that brand, as well as disclosure position and the news source the article was embedded in, the interaction effect of source credibility and conceptual persuasion knowledge was found to be not significant ($\beta = 0.031, t(586) = 0.696, p > 0.05$) and thus, it was determined that higher ratings of conceptual persuasion knowledge does not have any significant moderating effect on attitudinal persuasion knowledge.

Discussion

The aim of this study is twofold. First, the effect of sponsorship disclosure position on participants' activation of conceptual persuasion knowledge is examined. As native advertising emerges as a more prolific form of advertising in online news media, the role of sponsorship disclosures in aiding consumer understanding of the advertising nature of the content they view increases as well. Second, the effect that the credibility of the news source that the native

advertisement is embedded in may have on participants attitudinal persuasion knowledge is examined. As the number of sources in the online news landscape increases, advertisers are faced with decisions about which publication to partner with. The credibility of the news source they advertise with may be a determining factor as the publication's credibility is thought to spillover to the advertisement and have an effect on attitudes towards the content. Measures of attitude specific to the persuasion knowledge model, and more broadly towards the text, were collected to assess the effect of news source credibility on underlying ad processing mechanisms occurring when consumers interact with native advertising.

This study shows that participants recognition of disclosures does significantly vary by the position in which it is placed relative to the advertisement. Top-positioned disclosures were correctly noticed by participants significantly less than bottom-positioned disclosures. This finding is in line with a previous study that has found top-positioned disclosures to be less effective than other positioned disclosures in generating participants advertising recognition (Wojdyski and Evans, 2016). However, in that study no statistically significant difference in advertising recognition was found between top- and bottom-positioned disclosures. This study extended those findings by showing that a bottom-positioned disclosure performs better in garnering recognition of the disclosure. One explanation for this comes from prior research on viewer's reading behavior online, which indicates that viewers more often engage with the content in the body of the page before they view information in the heading, if at all (Goldberg et. al, 2002). Viewers who become immediately engaged with the content in the body may be more likely to continue scrolling and reading the content all the way until they reach the bottom, upon which they will finally interact with the sponsorship disclosure. If this is the case, then

those who scroll past the beginning of the article and directly to the body may be likely to entirely miss the disclosure, an outcome the FTC and consumer watch groups do not wish for.

Participants in the study demonstrated that they were more likely to notice a disclosure placed at the bottom of an advertisement, yet amongst the 596 total participants who noticed the disclosure, those in a top-positioned disclosure condition had higher ratings of conceptual persuasion knowledge (i.e. advertising recognition) than those in a bottom-positioned disclosure condition. One explanation for this finding may come from priming theory in the context of sponsorship disclosures: a sponsorship disclosure displayed prior to the content may prime the reader to the advertising nature of the content (Boerman et. al., 2014). This explanation is likely dependent on the viewer understanding the message that the disclosure conveys, which is thought to occur in a two-step sequential process: first, consumers must notice the disclosure, and second, they must be able to understand the message it conveys (Wojdyski and Evans, 2016). The finding from this study is in support of the Federal Trade Commission's recommendation for a top-positioned disclosure, which has the preferential goal of alerting consumers to the advertising nature of the content they view. At the same time, this finding engenders a debate between which step in the process is more crucial for consumers to receive enhanced training in as native advertising grows. Although the second step cannot occur without the first, the disclosure is nonetheless ineffective if the second step isn't completed. Based on the findings, top-positioned disclosures are better understood to convey a message about advertising to consumers; a recommendation to increase overall advertising recognition would therefore be best suited to focus on increasing disclosure recognition for disclosures placed at the top of an advertisement. One such suggestion is to freeze the article heading with the disclosure in place for up to three seconds upon loading. This solution does not guarantee that consumers will notice

or understand the disclosure, but it may provide them an increased opportunity to view it that they are missing when they scroll directly to the body of the content and past the heading.

The other important finding for this study is the potential benefits advertisers may derive from advertising with a publisher that has a higher level of credibility. This study indeed found that participants rated a more established news source, *The New York Times*, to be more credible than a less established news source, *Vox* (established is considered in terms of years in existence and overall readership). The study found that there was a diminishing effect on participants activation of attitudinal persuasion knowledge (i.e. critical feelings towards the advertisement) when they rated a news source more credible. An explanation for this result may be explained in part by the effects of source cues when subjects are interacting with a message that initiates low levels of elaboration, such as a subtle, embedded native advertisement. Under conditions of low elaboration, attitudes may change based on various simple cues presented in the context of the message; in the case of this study, source credibility is a peripheral factor of the native advertisement and may act as a simple acceptance or rejection cue for participants (Petty and Cacioppo, 1984). It is generally plausible that this occurred for participants in this study, as over 94% of respondents were able to correctly recall the news source in which the advertisement was embedded in. A subliminal process may have occurred that resulted in less critical attitudes towards the content for those that did recognize the news source and did rate that news source as having a high level of credibility.

For participants, increased ratings of conceptual persuasion knowledge indicated that they had greater recognition that what they were exposed to was an advertisement. However, the effect of source credibility on attitudinal persuasion knowledge was not reversed for those that did recognize the advertisement. Empirically, this study showed that conceptual persuasion

knowledge did not have a significant moderating effect on attitudinal persuasion knowledge. Conceptually, this may mean that even if participants are alert to the fact they were viewing an advertisement, they may still spillover their positive feelings towards a more credible news source into less critical feelings towards the advertisement. For advertisers, this finding makes the previous finding of source credibility's effect on attitudinal persuasion knowledge more robust. Advertisers have something to gain from partnering with a highly credible news source; in situations where the nature of their advertising partnership with the publication is understood by consumers, they still have something to gain. This is proven by the significant negative main effect source credibility has on attitudinal persuasion knowledge, even when an interaction effect between source credibility and conceptual persuasion knowledge is included.

There remains an on-going debate about the efficacy of native advertising between advertisers, regulators, and consumers. Advertisers believe it comes from the informative nature of the content they present to consumers; consumers have agreed, to an extent, with this belief and do consider developing stronger relationships with brands through open and engaging native advertisements (Campbell and Marks, 2015). Regulators state that some of the benefits alluded to above are derived from the deceptive nature of native advertising. This study has attempted to show to regulators of native advertising that placing a disclosure at the top of the advertisement, along with creating a means to ensure consumers view and understand the disclosure, will lead to higher levels of advertising recognition. Indeed, this is not a bad thing for advertisers, as open and clear advertising relationships with consumers are better than being caught having deceived the consumer (Campbell and Marks, 2015). This study also aimed to show to practitioners that partnering with a highly credible news source is in the best interest of advertisers, if they have the available budget to do so. Partnering with a credible publisher can extend that credibility to

the advertisement and may prove to be an important step in generating a strong brand relationship with the consumer. Overall, it is recommended that advertisers work towards developing consistently clear disclosures and strong partnerships with credible news sources to increase the value of native advertising in news media.

Limitations

This study explored the underlying mechanisms of native advertising situated in the context of online news media. Due to the specificity of this context, the generalizability of the study's findings is limited. Disclosures appear in many different forms across the internet and the disclosures that were created for the stimuli in this study may not exactly resemble disclosures in other contexts such as social media websites or online search engines. In addition, the disclosures that were designed for this study employed wording that was consistent across stimuli and deemed to be effective in generating advertising recognition for consumers; however, other wording has been used effectively in different studies and across publications on the internet. This indicates that the measures of advertising recognition that were collected through this study may only be applicable to disclosures that use the exact wording "Sponsored content presented by...". Lastly, the disclosures that were designed for the stimulus in this study were meant to emulate industry practices but were not designed to exactly replicate the practices of any one publisher. The intent in this is to accentuate the features that are still being debated by regulators and independent researchers, but this intent contrasts with the preferences of advertisers, who most likely wish for the advertising nature of their content to not be easily noticeable.

Using multiple choice survey questions to assess whether consumers noticed a disclosure is likely a limitation of this study as well. Prior studies that have investigated the effectiveness of disclosures in generating advertising recognition have asked participants to reply in text form

whether they noticed a disclosure, as well as asking what the disclosure said and where it was located (Amazeen and Wojdyski, 2018, Wojdyski and Evans, 2016). These text responses were then coded to determine whether participants noticed a disclosure. Compared to this study, which found 46% of participants to have noticed the disclosure, those two studies both found less than 10% of participants to have noticed the disclosure. The discrepancy in the studies may be due to the multiple-choice assessment used in this study. It is possible that there are some participants who said they noticed the disclosure and then guessed correctly the location of the disclosure without having actually seen the disclosure in the correct location. These would be considered false positives. It is also possible that there were participants who did notice the disclosure but didn't understand that what they had viewed was a disclosure. Without the ability to describe in text what they had seen, participants missed out on an opportunity to state that they had seen the disclosure. These would be considered false negatives because they indeed did see the disclosure but were unable to describe what they'd seen through answering the multiple-choice questions.

Lastly, the ordering of the survey questions that participants responded to may have had an effect on their responses. Before participants answered questions regarding the measures for conceptual and attitudinal persuasion knowledge, as well as disclosure recognition, they were asked to indicate their familiarity with the brand sponsoring the advertisement in their condition. It is possible that this question may have tipped off participants to the fact that they were viewing an advertisement and that this knowledge may have had an effect on their subsequent responses. Participants responses to this question were included as a control measure in all regressions ran due to the four different brands sponsoring the advertisements used in the stimuli, however, this

inclusion most likely does not control for the ordering effect that this question may have had on subsequent questions.

Considerations for Future Research

The findings of this study add to a growing body of research on the effectiveness of sponsorship disclosures. However, the discussion surrounding best practices for characteristics such as position, prominence, and wording, is still unresolved. Future directions for research may build upon the distinction that was demonstrated in this study between consumers noticing a disclosure and understanding the message it conveys regarding the advertising nature of the content. For example, future studies could investigate manipulating other characteristics of a top-positioned disclosure, such as visual contrast, size, or timing of appearance, to enhance the ability of consumers to notice the disclosure. Another study could investigate the advertisement processing mechanism consumers have when they notice a disclosure at the bottom of an advertisement to understand why they were less likely to make the connection that the disclosure they noticed indicated that what they have just viewed was an advertisement. Lastly regarding disclosures, it may be of interest to researchers to understand the effectiveness of disclosures for people who are more familiar with native advertising compared to those who are less familiar with native advertising. It is possible that no matter what characteristics are used in a disclosure, a person who is entirely unfamiliar with native advertising may not be able to associate that disclosure with advertising. Exploration through such a study may provide indication for just how much training consumers may need in recognizing and understanding disclosures and allow regulators and consumer protection groups to hone their efforts in on educating consumers about disclosures while they focus on best practices for advertisers at the same time.

The findings of this study also indicated that a peripheral cue, such as news source credibility, surrounding the native advertisement has an effect on consumers critical processing. Despite participants rating *The New York Times* to be relatively more credible than *Vox*, there is indication that both news sources have high levels of credibility relative to other publications in the news media industry. With this in consideration, further studies may look to explore the effect of news source credibility in more depth by comparing a news source that is distinctly low in credibility (in terms of expertise, trustworthiness, and bias) with *The New York Times* or *Vox*. News sources that are distinctly low in credibility are thought to have sponsored content on their websites as a form of clickbait, which is often more deceptive and irritating than the type of sponsored content investigated in this study. Additionally, textual analysis of the advertisements used in this study could be conducted to determine if there are patterns in the text of favorably rated native advertisements. It has been shown that readers evaluations and attitudes towards the advertisement are influenced by the content characteristics of the native advertisement (Krouwer et. al, 2017). A direct follow-up to this study could relate participants ratings of attitudinal persuasion knowledge and attitude towards the text to a textual analysis performed. Results from this analysis could provide indication to native advertising content creators about what tone and wording to use in the article. With the aim of engaging and informing consumers about their brand, advertisers could use such content analysis to hone their ability to do so.

Conclusion

The questions surrounding native advertising – Are people able to understand that the content they are viewing is advertising? Does their understanding impact their attitude towards the advertisement? Towards the brand or publisher? Is the method of advertising overall

effective and positively received by consumers? – are growing simultaneously with the growth of the format. The lack of advertising recognition by consumers further demonstrated in this study can be discouraging for regulators who wish to protect the best interests of the consumer; however, this study has provided another piece to the puzzle in understanding how and why consumers do or do not recognize native advertising. Top-positioned disclosures have been shown to have a significant effect on activating consumers' conceptual understanding of advertising, while a more credible news source has been shown to diminish activation of consumers' critical feelings towards a native advertisement. In light of these findings, this study highlights a continued need for independent researchers to examine the best practices for sponsorship disclosures to generate advertising recognition. Such advertising recognition may counter advertiser's initial intent for the advertising format, but, in the end, may help them avoid a worst-case scenario in which the consumer feels deceived. As native advertising continues to evolve, an increased number of news publishers are embracing it on their websites, indicating that it's in a growth stage currently. The best stance for sustained growth of native advertising may come from advertisers being able to engage consumers in informational, positive reflections of their brand while making it clear that the reflection is an inherently persuasive position of the brand.

Funding

This research was supported with funding from the Stephen M. Ross School of Business at the University of Michigan through the Michigan Ross Senior Thesis Seminar (BA 380).

Appendix

Exhibit A

What is your age group?

		Frequency	Percentage
Valid	18-25	180	12.5%
	26-35	523	35.5%
	36-45	298	20.5%

What is your gender?

		Frequency	Percentage
Valid	Male	720	49.5%
	Female	586	40.5%

What is the highest degree or level of education completed?

		Frequency	Percentage
Valid	High school graduate, diploma, or equivalent (GED)	12	0.8%
	Some college credit, no degree	24	1.6%
	Trade/technical/vocational training	4	0.3%

Open source technology will influence the future of cloud

By Steve Robinson
January 30, 2019

Open source has been changing the world for more than 25 years. Ever since Linux's inception in 1991, the open technology movement it set in motion has been hugely successful and its influence — which goes beyond the world of software and business — is likely to continue for decades to come.

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Open source technology will influence the future of cloud

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By Steve Robinson
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Condition 3: Low news source credibility + bottom-positioned sponsorship disclosure

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Condition 4: Low news source credibility + top-positioned sponsorship disclosure

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