

BREAKING NEWS AND SPONSORED CONTENT

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A thesis submitted to the faculty of  
San Francisco State University  
In partial fulfillment of  
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the Degree

Master of Arts

In

Broadcast and Electronic Communication Arts

by

Leonard Lee Haynes

San Francisco, California

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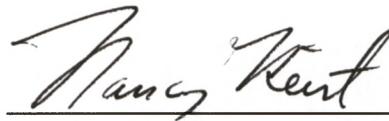
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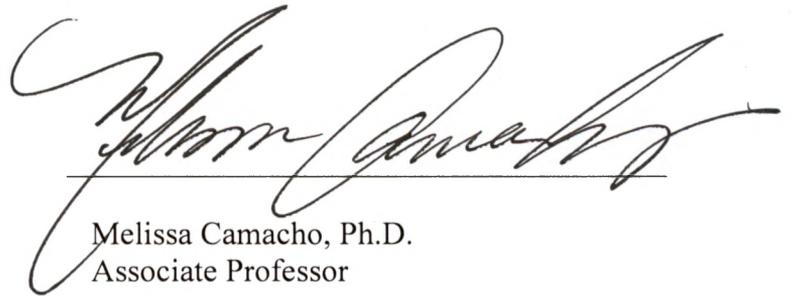
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## BREAKING NEWS AND SPONSORED CONTENT

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This study examines to what degree native advertisements are relevant or irrelevant to the breaking news stories in which they are embedded on mobile news applications. Additionally, this study investigates the denotative and connotative interpretations that relevant native ads generate. A content analysis was conducted of breaking news headlines and native advertisements on five mobile news applications (apps). Data was collected by means of screenshots that were then coded and analyzed. Once the data was coded, the native ads were ranked in order of the most matching descriptive topic codes relative to their breaking news stories. Lastly, a semiotic analysis was conducted of the four most relevant native advertisements by incorporating Morris' (1964) foundational work in semiotic sign theory.

Integrating advertising methods such as native advertising into digital news content technologies like mobile applications pose new challenges for both advertisers and content providers. In the context of a breaking news story, a viewer may interpret an advertisement with varied connotative meanings that were unintended by the advertiser or content provider.

I certify that the Abstract is a correct representation of the content of this thesis.

  
\_\_\_\_\_  
Chair, Thesis Committee

  
\_\_\_\_\_  
Date

05/14/18

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## INTRODUCTION

From the development of television news broadcasting, to online news websites and recent technologies such as mobile news applications, advertisers have employed various mediums for delivering advertising content to mass consumers of news. One method for delivery is through embedded advertisements or sponsored content that replicates the format of a website or mobile application. This method is often referred to as native advertising (Carlson, 2015; Wojdyski, 2016). Native ads replicate the structure and style of any given digital content. When viewed on mobile news applications, native ads appear as news content much in the same style as a newspaper headline, some with the addition of a graphic illustration or photographic image. Sponsored content is a form of native advertising (Interactive Advertising Bureau, 2013). A study by the Federal Trade Commission (2015) on deceptively formatted advertisements defined native advertising as follows:

Natively formatted advertising encompasses a broad range of advertising and promotional messages that match the design, style, and behavior of the digital media in which it is disseminated... Commonly, when a natively formatted ad appears on a publisher site, it consists of headline text, a short description, and a thumbnail image, which, if clicked, lead to additional content (p. 10).

When native ads are embedded into a breaking news story, how does the average viewer perceive both the ad and the news story in which it is embedded? In the current social and political climate, news credibility or lack thereof is a critical issue with society.

Many Americans are becoming distrustful of news media and more specifically, digital news stories and content (Mitchell, 2014). While studies have been conducted on the impact of advertising on the Internet, (Yang & Oliver, 2004) and specifically online newspapers, (Wojdyski, et al., 2016) more research needs to be conducted on how native advertisements are perceived by consumers of digital news on mobile apps. To what degree are native ads relevant or irrelevant within a breaking news story across mobile news applications? What denotative and connotative meanings are produced when relevant native advertisements are embedded within breaking news stories? Using a semiotic approach to analyze relevant native ads on mobile news apps, this study explores the relationship between native ads and breaking news stories.

Advertisements are utilized in a multitude of communication formats in order to promote a product or service to a mass consumer audience, which in turn provides revenue for both the advertiser and for the content provider. Advertising revenue provides the finances that allow media programming to exist (Suggett, 2017). Revenue from digital advertising on the Internet and mobile platforms has seen a large increase over the years. According to the Interactive Advertising Bureau (2016), digital ad revenue grew by 19% totaling 32.7 billion dollars for the first half of 2016 alone (IAB, 2016). If the current trend continues, advertising on Internet and mobile platforms may eventually outspend traditional avenues of advertising, such as print, broadcast television and cable.

Viewers of digital news may experience news content differently than the traditional print or broadcast mediums. Digital news content that is viewed on web based or mobile platforms contain varied forms of advertising as well as comment sections that allow viewers the ability to interact with other viewers to interpret and argue the merits of the news content together. News media organizations strive to expand their reach to this mass viewing audience by implementing the best technological medium to deliver their news content. At the same time, media companies must ensure that their news content is perceived as credible and trustworthy to viewers. The American Press Institute (2016) conducted a study into the many factors that influence people to trust news media. In regards to mobile news content, the researchers found:

In much the way misspellings and grammatical errors do for text, or dead air might in broadcast, factors such as load times, mobile compatibility, and ad placement may now serve as indicators for consumers to evaluate a source's competence on digital platforms (p. 14).

As native advertising continues to expand onto mobile applications, further studies may be needed to reveal the effects that native ads have on mobile app viewers' evaluation of source competence. Meyer (1987) suggested that advertisers need not exact control over news content because one of the key factors that viewers acknowledge as to how they perceive a news source as credible, is that the news agency is objective and independent of influence (Meyer, 1987). As advertising methods, such as native ads continue to evolve it may be difficult for the viewer to know if advertisers are exacting control over

news content, or are the advertisements appearing randomly within the digital news content.

The roots of native advertising can be traced back to before the advent of the Internet and digital news, when television was the vast broadcast medium for news consumption. Advertiser sponsored content within the realms of news content was evident in the early days of television broadcasting. Corporate sponsorship of public events was developing as early as 1952, when NBC allowed General Motors to sponsor and advertise the inauguration of President Eisenhower. In fact, one of the first instances of advertising within a news format occurred that same year, when CBS News broadcaster Edward R. Murrow discussed a print ad or advertorial by the program's sponsor during Murrow's newscast (Samuel, 2001). The print ad discussion was framed similar to a news story. The lines between an advertiser just sponsoring a news program and that sponsor's ad being embedded into the news broadcast in the guise of a story became blurred and as a result, may have set a precedent for today's sponsored content within news content (Samuel, 2001). Advertisers in the golden age of television were in the business of selling commodities to a mass viewing audience. Using the medium of television during the 1950s and well into the 1970s, advertisers focused their efforts on viewers remembering their products. Product memorization was achieved by the use of commercial jingles, animated characters, or graphics (Goldman & Papson, 1996). The advent and adoption of Internet advertising by content providers required new techniques for displaying ads.

Mobile application platforms are a newer medium for delivering news content and embedded advertising or in-app ads. A mobile news media app embodies the convergence of multiple news delivery mediums: broadcast news, print journalism, and streaming video technology. Jenkins (2006) describes media convergence as “the flow of content between multiple media platforms” (p. 282). Not only have the news content delivery mediums converged, but also the numerous ways in which advertisements are embedded reveal a paradigm shift to viewing audiences. The convergence of media onto a mobile platform has changed the manner in which content is produced by the creators, and viewed by the consumers (Jenkins, 2006). This is especially true for mobile news applications because the mobile app platform allows for news content and advertising to be viewed as text or viewed in the video format.

The gap between traditional television broadcast news viewing and online or mobile news app viewing is narrowing. By late 2017, research revealed that 43% of Americans reported that they viewed news online compared with 50% that reported that they still viewed news on television. The gap between the two mediums was 19 points higher in the favor of television just over a year before (Bialik & Matsa, 2017). More recent research revealed that mobile devices are becoming the prevalent way for Americans to access the news. According to Lu (2017), “More than eight-in-ten U.S. adults now get news on a mobile device (85%), compared with 72% just a year ago and slightly more than half in 2013 (54%)” (p. 1). As each year sees an increase in mobile application downloads, mobile devices are becoming the preferred news delivery medium

by a society that demands to be informed of news events in a quick and concise matter. Rowles (2014) stated that iOS and Android mobile operating systems account for over 90% of the market share in the United States. As mobile app downloads continue to increase, so will the advertising revenue gained by in-app advertising methods. Hollander (2017) reported that, “the global app market is expected to balloon to \$102 billion in revenue by 2020” (p. 1). Digital technology continues to change the way in which media companies deliver and broadcast news content (Hollander, 2017, p. 1). If mobile device sales continue to increase, more viewers may acquire their news from mobile news apps. From newspapers to broadcasting, viewers continue to be subjected to multiple forms and styles of advertisements. Native advertisements placed within news content may evoke a multitude of perceived feelings and reactions in those who view and consume news media (Greer, 2003; Yang & Oliver, 2004). It is the hope of this study to contribute to existing research into how native ads are perceived by consumers of digital news on mobile news apps.

### **Operational Definitions**

Media credibility has been studied over time and extensive research into how people perceive different media and mediums as credible sources for news consumption have been conducted. Bucy (2003) defined media credibility as how believable a news channel is in regards to a single viewer’s perception. The concept of media credibility can be measured by its accuracy, fairness, bias, and how complete and well researched the

information it presents is (Bucy, 2003). Additionally, a viewer might perceive media credibility on varied levels from low credibility to high level of credibility.

A “breaking” news story or in some news entities referred to as an “alert,” is a news story of higher value and priority over other news stories. Breaking news is commonly seen as a recent developing story of high importance. According to Reuters (n.d.), journalists are required to adhere to strict guidelines when publishing an alert. These guidelines state, “publish an alert only when you judge that news may move a market or influence client decisions, or that it will be of significant interest to a global readership. Think of it as a long headline with a source” (p.1). The mobile news applications researched for this study utilized the breaking news headline concept in great detail (see appendix B).

The Federal Trade Commission (2017) defines a mobile application as, “a software program you can download and access directly using your phone or another mobile device, like a tablet or music player” (p.1). Mobile news applications follow a similar aesthetic structure across mobile platforms. A viewer sees the main news page upon launching the news app. Mobile news apps appear not unlike the traditional newspaper. Breaking news headlines are at the top of the page followed by lesser high intensity news stories. Once a viewer clicks on a particular story, that viewer is connected to a second page where the full story appears along with banner ads and native ads embedded into the news story. Lu, Wang and Ma (2013) conducted research into why viewers chose certain mobile news apps to consume media. They compared mobile users’

experiences when they viewed news on desktop and mobile devices. The researchers found that mobile users preferred to view news stories arranged by topics, and that users would rather navigate a news site that offered clear visual cues than a news site that did not offer those features (Lu, Wang & Ma, 2013). The five mobile news apps utilized for this study did indeed offer clear visual cues especially in relation to breaking news stories that would appear, in most cases at the top of the app page when the app was launched.

#### **Aesthetic Structure of Native Ads**

Native ads contain aesthetic elements in their form and content in order to achieve integration objectives by the developers of the ads: Font types and colors, image or graphic illustration, title or descriptive text are some of the design elements that make up a native advertisement. When viewed on a mobile news application, native ads commonly contain a textual headline accompanied by a corresponding image related to the ad (Lovell, 2017, p. 61). There are multiple types of native ads that a viewer experiences depending on the Internet website or mobile platform used.

The Interactive Advertising Bureau (2013) identified the six types of ad units most commonly used in native ads: (1) In-Feed Units, (2) Paid Search Units, (3) Promoted Listings, (4) In-Ad with Native Element Units, (5) Recommendation Widgets, and (6) Custom ads. According to Interactive Advertising Bureau (2013), marketers evaluated some of the brand objectives of a native ad: 1) Integration: How well the advertisement behaviors match those of the surrounding content, and 2) Disclosure: how clear the disclosure is and how prominent it appears on the page. Disclosure language

commonly uses terms such as: “advertisement,” “AD,” “sponsored by [brand],” “sponsored content,” “promoted by [brand],” to inform the viewer that the content is actually an advertisement. Disclosure language is required under Federal Trade Commission guidelines (Interactive Advertising Bureau, 2013, pp. 6-10). For this study, the level to which a native ad integrates with its surrounding content was measured during the coding phase. Coders noted if a native ad contained text or graphic elements that were similar to the breaking news headline that the ad was embedded in (see appendix D).

### **Review of the Literature and Theoretical Concepts**

Many studies have been conducted on advertising effects in both print and digital platforms. Although the literature covers a wide variety of topics, this review concentrates specifically on advertising on the Internet through advertising via mobile platforms. Additionally, studies that analyzed the relationship between advertising and media credibility are reviewed. Lastly, an overview of semiotic theory and studies that incorporated semiotics in relation to advertising effects is presented as the theoretical framework for this study.

Early research into the decoding of advertisements revealed a multitude of meanings that were previously hidden or unrecognized by consumers. Williamson (1978) incorporated semiotic analysis to decode a French perfume magazine ad in order to reveal inherent meanings contained in advertisements. She argued that advertisements sell society not just consumer goods, but an ideology of misleading concepts about reality (Williamson, 1978). This leading study in advertisement deconstruction using a semiotic approach laid the groundwork for interpreting the cultural or ideological meanings hidden in ads.

The precedent for incorporating advertisements within news content can be traced to the early days of broadcast television when whole productions were financed by means of sponsorship and direct insertion of commercial ads into a program (Williams, 1974). Native advertising is a similar method for content providers like mobile news

applications to generate revenue today. A native ad can be seen as a direct insertion into the news content.

By the middle to late 1990s online advertising transitioned to text based banner ads and eventually interstitial ads, which are ads that use a full screen graphic banner blocking the original web content (Kaye & Medoff, 2001). Smith (2015) described the advent of real-time bidding systems as a transformative concept in online advertising models. By employing this method, advertisers could target audiences with far more precision. In fact, real-time bidding allowed the advertiser to display their ads directly to each viewer on a website or mobile platform. They achieved this by buying media placement from ad network companies such as Google (Smith, 2015). It is important to understand that the real-time bidding method has led to the influx of native advertising. Content providers now have the ability to target their ads directly to a viewer by utilizing data obtained from consumers shopping history or websites they have visited (Google, 2018). The more precise an advertiser's information is about consumers, the better they can target their ads to the individual viewer.

As advertising models evolved during the Internet age, newer studies were conducted into the effects of online advertising on consumers. Yang and Oliver (2004) examined how advertisements placed on Internet news sites could impact the value of news stories. In their study, light Internet users perceived serious news stories as less "newsworthy" when irrelevant or nonsensical ads were embedded into the news story.

The researchers concluded that embedded advertising might lead to “inappropriate characterizations of serious or hard news content” (p. 744). In a contrasting study, Greer (2003) evaluated the source credibility of two different online media websites to see how viewers rated credibility of online information. When viewers were subjected to news stories where the media brand source was hidden, the researcher hypothesized that viewers would recognize the embedded advertisements as a secondary “source cue” for rating the credibility of the story. In fact, the participants in the study paid little attention to the prominently placed ads, leading the researcher to conclude that online users notice ads less than they notice the content on a news site (Greer, 2003). Viewers of native ads may also find that the ads are less noticeable because of how native ads tend to replicate the content they are in.

A more recent study related how viewers recognized online ads. Wojdyski (2016) researched sponsored content and native ad recognition in viewers. He noted that if a viewer recognized a sponsored advertisement, they were less likely to share the article on another website. Moreover, disclosure labels that were usually displayed next to native ads or other types of sponsored content were misinterpreted as not referring to the sponsored content that they actually referred to. The researcher found that many participants could not recognize native advertisements as different from the news article used for the study (Wojdyski, 2016). The results can be interpreted that a viewer may perceive native ads as deceptive in nature even when a disclosure label is present.

### **Media Credibility and Advertising**

The following studies explored media credibility in relation to various mediums for consuming news, but not related to advertising effects. Gaziano and McGrath (1986) conducted research into how credibility could be measured in regards to news consumption. One particular section of their study measured how viewers compared the credibility of newspapers to television as a medium preference. Their findings showed that although more viewers perceived newspapers to have a higher credibility level, those same viewers chose television as their preferred medium to consume news content. Flanagin and Metzger (2000) explored people's perceptions of Internet information credibility. They found that consumer's perceived credibility of information found on the Internet on the same level as information obtained from television, radio and magazines. Newspapers scored higher than the Internet though. News content in particular was seen as not having a distinctive difference in perceived credibility between mediums. The researchers suggested:

Respondents may judge credibility on the basis of content rather than medium. That is, if respondents think of news information on the Internet in terms of CNN's web site, for instance, they would be unlikely to report that it differs in credibility from CNN on television (p. 530).

This may explain why news media brand logos, colors, and font types are the same on mobile apps as their television counterparts. Brand uniformity across media platforms allows the viewer to easily recognize their preferred news content.

Kiousis (2001) also explored perceptions of news credibility in online news and other mediums. His findings showed that Internet news was perceived as more credible than television news.

These three studies show how media or more precisely, medium credibility changes as technology evolves. As mobile devices continue to be the preferred medium for consuming news content, new research could reveal how viewers perceive media credibility on mobile platforms today and into the future.

Advertising research in the context of how viewers perceive media credibility has yielded a rich source of data. According to Meyer (2004) advertising messages will be perceived as more valid, if they appear in a domain of credibility and esteem (Meyer, 2004). In the traditional broadcaster/advertising relationship, viewers are exposed to advertising by the broadcaster. Now it is the advertising itself that attracts the consumer (Carlson, 2015) and in many cases, guides the consumer away from the factual news content. Carlson (2015) argued, “Despite pledges of autonomy, advertising supported journalism has long remained open to influence” (p. 852). Viewers are exposed to native ads when they are embedded into a news story and are mostly perceived as valid due to the credibility of the news media brand.

Wojdyski, Golan, Schauster, Ferrucci, and Neill (2016) conducted qualitative interviews with digital journalists to study the effects that native advertising was having in multiple aspects of online journalism. In the area of news credibility, their study found that respondents were concerned that by publishing native advertisements, the credibility

of journalism could be diminished. Moreover, even if native ads were clearly labeled, credibility could be affected because consumers may lack the ability to discern native ads from factual journalism (Wojdyski, et al., 2016). Although many native ads, as they appear on mobile news apps, are labeled “sponsored content” or “paid content,” viewers may perceive them as a secondary news story that may relate to the main news story.

In an earlier study, Moore and Rodgers (2005) examined viewers’ perceptions of advertising credibility and skepticism through ads by using five different media: television, newspapers, magazines, radio and the Internet. The researchers studied how viewers interpreted advertisements on different media based on the perceived credibility of the ads, and which media would have the highest degree of perceived advertising credibility with the viewers. Their findings showed that Internet ads were perceived as least credible, whereas newspaper ads were perceived as most credible (Moore & Rodgers, 2005). Age demographics may play a part in this study. Younger consumers may acquire their news content from newspapers as much as older consumers who grew up reading newspapers. Moreover, as digital news consumption on mobile devices increases, newer research comparing ads on Internet news to mobile news apps may yield different results as well.

Native ads have the potential of unwittingly colliding with the tone of a news story that may affect credibility. Zettl (2008) emphasized that the use of multiple frames of unrelated information on a web page might result in a *tertium quid* (unidentified third element) whereby the audience sees unintended meanings within the context of news

stories and advertising combined. Zettl (2008) suggested, “Even if a single Web page displays images that in combination are reinforcing the basic message, scrolling may inadvertently ‘edit’ images into a montage that carries an unintended meaning” (p. 326). The degree, to which a native ad clashes with its corresponding news story, may be used to determine how relevant or irrelevant the advertisement is.

How advertising that is embedded within news content may affect viewers’ perceptions of news credibility continues to be researched. A recent study by the American Press Institute (2016) concluded:

Most news consumers know advertising is part of the business model and often enables the free access they expect. However, when people see advertising, they say they want it to be of a similar tone and topic to the news content and mesh visually with the page. In contrast, irrelevant, off-tone, or jarring ads can really bother people (p. 16).

Viewers may come to accept native ads within their news content, but if those same ads are affecting perceptions of news credibility, further studies may help reveal how, why, and to what extent. One approach that may aid in deconstructing native ads in order to reveal how they may be affecting perceptions of news credibility is semiotic theory.

## **Semiotics**

It is possible to deconstruct an advertisement in order to reveal the multiple meanings hidden within a text. Semiotics, the theory and approach that will guide this study of native ads on mobile news applications, has been applied in numerous advertising research studies to date (Williamson, 1978; Leiss, Kline & Jhally, 1986; Goldman and Papson, 1996; Berger, 2012; Dincakman, 2015). These studies defined how semiotics could be applied to decode the connotative meanings that advertisements evoke.

A viewer interprets native ads using varying semiotic codes. Semiotics is often referred to as the science of signs and symbols and the semiotic approach looks at how we interpret signs and the meanings they create, and what they reflect about society and culture (Berger, 2000; Sillars & Gronbeck, 2001). When viewed in the context of media like television or cinema, semiotics explores how meaning is generated in media texts. It examines the relations between signs and in doing so; the meanings conveyed by the signs can be determined (Gunter, 2000). A viewer may interpret the meaning of an advertisement differently when viewed within the context of factual news content. Semiotics can be applied to aid in the interpretation of those generated meanings.

The pioneering work by Ferdinand de Saussure (1857-1913) and Charles Sanders Pierce (1839-1914) laid the groundwork for semiotic theory and the study of signs. Berger (2012) summarized Saussure's division of a sign into two elements: the signifier or "sound-image" and the signified or "concept" (Berger, 2012, p. 4). Pharies (1985)

interpreted Pierce's complex sign theory, which is composed of three inter-related parts of a sign or a "semiotic triad" (pp. 14-18) that consists of: (1) the *sign*: anything capable of standing for something else, (2) the *object*: what the sign refers to, and (3) the *interpretant*: the interpreter of the sign and to whom the sign is addressing (Pharies, 1985). The meaning of the sign is revealed in the interpretation that it generates in the viewer.

Barthes (1977) developed key theories when he studied advertisements.

According to Barthes, signs denote and connote meanings. There are two different levels of signification within a sign. The denotation is the literal meaning of the sign, whereas the connotation is the cultural meaning behind the sign. He applied these concepts to identify structural components and their relationships to signs. When a reader interprets connotation, they apply their own knowledge and background to the sign. Therefore, a connotative decoding of a sign can change depending on one's culture or background (Barthes, 1977; Crow, 2003). Berger (2012) suggests that most of media analysis involves ascertaining the connotations of objects and relating them to how a viewer may find meanings in these objects. He also compared denotation and connotation by stating that connotation is "figurative," "suggests meaning," and is "inferred," whereas denotation is "literal," "describes," and is "obvious" (Berger, 2012, p. 20). Additionally, Barthes (1977) identified multiple codes or perspectives that can be used to interpret written texts as they relate to signs, and aid in understanding the contextual and ideological meanings contained in texts. Three of these codes, semantic, cultural, and

symbolic codes can be used to interpret texts because they are more connotative rather than denotative (Barthes, 1977; White, 2012; Ironstone, Leitch, Onyango, & Unruh, n.d.). Advertisements, and in particular, native ads that contain photographic images and/or headline text can be interpreted utilizing these three codes.

Morris (1964, 1971) created a model when he divided semiotics into three categories or sign divisions: (1) syntactics, (2) semantics, and (3) pragmatics. Syntactics looks at the formal relations of the sign itself. Semantics looks at meaning, or the relationship between the sign and its referents. Pragmatics studies the relationship between the process of signification and the interpreter (Morris, 1971). He defined how the three sign divisions could be utilized together to interpret a text:

Pragmatics, semantics, and syntactics are all interpretable within a behaviorally oriented semiotic, syntactics studying the ways in which signs are combined, semantics studying the signification of signs, and so the interpretant behavior without which there is no signification, pragmatics studying the origin, uses, and effects of signs within the total behavior of the interpreters of signs (pp. 302-303).

Fan (2006) claimed syntactics, semantics, and pragmatics “provides a means to explore the meaning of signs, the structure among signs, and the responses induced by signs, thus contributing to a better understanding of signs as communication vehicles” (p. 124). She applied the three sign divisions to interpret technical brochures and found that the Morris (1971) model could be employed for a deeper deconstruction on text and image based brochures.

A semiotic approach can be used to decode advertisements as texts. Goldman and Papson (1996) suggested advertising could be regarded as a “system of sign values” that establish the “relative value of a brand” (p. 5). Additionally, Leiss, Kline & Jhally (1986) suggested that a semiotic analysis could be used to derive meaning from advertising. They also offered a more succinct interpretation of signifier and signified in relation to an advertisement. The researchers stated, “the signifier is its ‘concrete’ dimension; the signified is its ‘abstract’ side. While we can separate the two for analytical purposes, in reality they are inseparable” (p. 152). Native advertisements contain multi-layered meanings when deconstructed, and in many examples seen in this study, contain an abstract side especially when viewed within a news story.

In a similar study to Williamson (1978), Berger (2000) also applied semiotic analysis to a magazine advertisement for perfume. He used multiple verbal, (headlines, words used, tone and style) and non-verbal (color, design, lighting and typefaces in text) signifiers to deconstruct the ad and relate what consumers might interpret when viewing the ad. For the semiotic deconstruction in this study, syntactics is used to show the structural or non-verbal interpretation of breaking news headlines and native ads.

Dincakman (2015) conducted a semiotic analysis of international online newspaper interfaces in order to explore and compare advertisements on the multiple interfaces. By analyzing the advertisements through a semiotic approach, the researcher concluded, “advertisements are the most effective parts of e-newspapers interfaces” (p. 126). In fact, a notable finding was that by adapting semiotics as an approach to

deconstruct online newspapers, cultural and social meanings were generated within the advertisements on the interfaces.

Native ads can be seen as multimodal texts, that is, they contain many elements such as visual images, written words, hypertexts, and other graphic design elements. When seen from a semiotic viewpoint, signs in advertisements share meanings such as visual structures and cultural codes (Serafini, 2011). Additionally, it is suggested that native advertisements denote and connote meanings. This study of native ads on mobile news apps will employ the Charles Morris (1964) semiotic model to deconstruct and analyze native advertisements.

The purpose of this study is to contribute to existing research into how native advertising is perceived by consumers of digital news. From the early research into what meanings are produced in print advertising (Williamson, 1978), to research that studied how advertising could impact the value of news stories when viewed online, (Yang and Oliver, 2004), and in some cases not at all, (Greer, 2003), research findings on advertising effects have evolved on many different levels. While many of these studies showed how consumers of media perceived credibility in terms of medium comparisons and advertising effects, this study looked at the denotative and connotative meanings that were created when native ads were viewed in the context of a breaking news story.

## METHODOLOGY

### Content Analysis & Semiotic Analysis

The overall goal of this study is to analyze and interpret the meanings that are generated when native advertisements are placed within digital news content on mobile news applications. Therefore, in order to deconstruct native ads as well as their related factual news stories, a content analysis of five mobile news applications (apps) that contained native advertisements within their news content was conducted. Three breaking news stories and their corresponding native ads across five mobile news applications were captured by means of screenshots (see table 1). The screenshots were then categorized, coded, and analyzed.

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Table 1

*Content Analysis Design*

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Mobile News App	Breaking News Story Headline	Native Ad Headline #1	Native Ad Headline #2	Native Ad Headline #3
ABC NEWS				
CBS NEWS				
CNN				
FOX NEWS				
NBC NEWS				

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The analysis was two-fold: (1) A content analysis incorporating a qualitative approach and quantitative methods for both news stories and their native ads, (2) A semiotic analysis of the top four relevant emergent native ads captured from the five mobile news apps. This study focuses only on major broadcast and cable news networks that also provide their content on mobile platforms.

The main goal of this study is to answer the following research question and sub-question:

RQ1: To what degree are native ads relevant or irrelevant within a breaking news story across mobile news applications?

- What denotative and connotative meanings are produced when relevant native advertisements are embedded within breaking news stories?

### **Rationale for Content Analysis**

A content analysis was employed as a method for this study in order to interpret, summarize and count the various facets of native ads in their mobile news app environment. A content analysis is generally used for examining data, images, texts, sounds, or print in order to understand what the information, (1) means to people, (2) enables or prevents, (3) does (Krippendorff, 2003). Macnamara (2005) suggested one typical method of sampling media content for analysis is by using *stratified composite samples* that are “constructed by randomly selecting units for analysis (articles or ads) from certain days or weeks over a period” (p. 13). This study employed the *stratified composite samples* method for selecting which native ads to sample. The native ads that

were selected were chosen from each breaking news story designated through a targeted approach. The researcher chose which breaking news stories to include in the content analysis based on daily observation of the mobile news apps during the data collection phase of the study. A concerted effort was undertaken to match the same breaking news story over the five mobile apps during each data gathering session. While the native ads were chosen at random as they appeared on each breaking news story page, the news stories themselves were targeted in order to gain a better understanding of how native ads compared and contrasted over multiple mobile apps but in the context of the same or similar breaking news story. Therefore, all the news headlines and native ad screenshots were captured by the researcher and shared with additional coders. Content analytic coding techniques were used to code all screenshots. According to Saldaña (2016) a code is best described in qualitative or quantitative research as a “word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 4). Descriptive news topic words were made into a coding key by the researcher and utilized to code all the screenshots of breaking news headlines and native ads.

By employing content analysis techniques for the data collection, coding, and analysis phase, it is the hope of the researcher that the goals of this study are met; in particular, the main research question posed for this study is answered through this methodology.

### **Content Analysis Design**

The tables used in this study were designed in order to answer the main research question and sub-question posed. Additionally, an appendix of additional tables representing the data recorded was added to this final research document. The tables represent how the data was coded, analyzed, and the data results. Table designs were based on concepts by: Berg (1995), Krippendorff (2003), Neuendorf (2002), Saldaña (2016), Schreier (2012), Wimmer and Dominick (2014).

### **Unit of Analysis Sampling Stage and Coding Scheme**

Five mobile news applications were downloaded onto both a Samsung Galaxy tablet and an iPhone. From those five mobile news apps, three breaking news story headlines and their related native ad screenshots were captured. Screenshots of each breaking news story headline and their corresponding native ads were then placed into pre-determined folders on Google Drive for later descriptive topic coding. Altogether, 15 news story headlines and 42 native ads were captured and assigned descriptive topic codes in order to compare and reveal the most relevant native ads. Because native ads tend to replicate the content in which they are embedded, the native ads were treated like “news stories” and assigned the same type of descriptive topic codes as the breaking news story headlines. This process enabled the coders to compare the relevancy and irrelevancy of the native ads to their breaking news stories.

The descriptive topic codes chosen for this coding scheme were based in part on various types of news story topics as suggested by Hartley (1988). Additionally, the main researcher added additional codes in order to allow for more in-depth coding of the data, (see table 2).

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Table 2.

*List of Descriptive Topic Codes*

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PO	Politics
CR	Crime
WE	Weather/Environmental
IN	International
SP	Sports
FI	Finance/Economy
HE	Health/Medical
SI	Social Issue
EN	Entertainment
ST	Science/Technology
DI	Disaster (natural or human-made)
OT	Other (describe)

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The data gathered was captured, organized, and categorized by the researcher. Three coders, including the researcher then coded the data separately in order to have a higher degree of intercoder reliability or agreement. The secondary coders were comprised of graduate students from the San Francisco State University's Broadcast and Electronic Communication Arts Department. Each student coder was compensated with \$50 U.S. dollars.

The five mobile news apps chosen for this study were: ABC News, CBS News, NBC News, CNN, and FOX News. The five mobile news apps chosen were based on the following criteria factors:

- Most popular news apps in the United States according to both iOS and Android platform downloading reporting data (Rowles, 2014).
- Major broadcast media companies that provide mobile news apps for downloading on iOS and Android platforms.
- National news networks that produce and broadcast their content on air, cable television, satellite, or streaming formats, as well as produce their content for mobile apps.
- Size and revenue of media corporations with news networks.
- Long-established news media companies that produce their content for mobile apps.

### **Coding Manual Design**

From January 5<sup>th</sup>, 2018 through the middle of February 2018, the researcher designed a coding manual, (see appendix D) which included all the descriptive topic codes and any additional codes that would be assigned to the data by all three coders. The manual included precise instructions that were to be followed by both the researcher and the additional coders. Instructions were described in great detail on how to view, categorize, code, and place the screenshots of the news stories and their native ads into assigned folders. The coding manual also included a sample Excel coding sheet for the coders to

refer to as an example of how to assign topic codes to the screenshots (data). Lastly, a glossary of terms was included in case the coders were unsure of what a specific research term used in the study meant.

### **Coder Training**

The researcher held a training session for both coders in late February 2018. Each coder was trained separately. A test model was designed by the main researcher to allow each coder to analyze and code two news stories and six native advertisements. The main researcher and both coders completed the test model. When the test model coder results were analyzed and compared, it was noted that nearly all the coded data matched across the test model. A high level of intercoder agreement was noted. Next, and the main researcher began data gathering and storage of the screenshots for the content analysis.

### **Data Gathering**

Detailed procedures were developed and tested by the researcher for the data gathering. The descriptive topic key code was adjusted several times. Additional codes such as: OT-other, DI-Disasters (natural or human-made) were added before the initial coding began. In addition to topic codes, the design element codes TEX and IMG were added to denote how closely the native ad replicated the breaking news story. If a breaking news story contained both a text headline with an image or graphic, then it would be noteworthy to see if the corresponding native ad also contained the same design elements.

Targeted screen shots of three breaking news stories from each mobile news app were captured between February 12, 2018 and February 28, 2018 by the researcher and transferred to corresponding online Google Drive folders. Within each breaking news story, up to three randomly chosen native ad screenshots were captured and added to each mobile news app folder. Each breaking news story and its corresponding native ad screenshots were captured and placed into each folder one at a time in order to minimize the chance that the wrong native advertisement would be placed in a different breaking news story mobile app folder. Once all the data was gathered and placed in folders, the main researcher notified the coders to begin the coding process.

### **Data Coding Process**

Coders coded each screen shot according to the guidelines in the coding manual. One coding issue was revealed immediately. The researcher noted that one of the coders had entered data incorrectly on the Excel sheets. The coder used the letter "X" to assign codes to the news stories and native ads instead of using the proper descriptive codes that were designed in the coding manual. The letter "X" was itself a code that would be used on the Excel sheet to denote if less than three native ads were present on a breaking news story page. This could cause confusion when all three coders' data was to be compared and transferred to new Excel coding sheets. After some discussion and feedback from the coder, both the main researcher and coder reentered the coder's original data onto the Excel sheets using the proper code keys. Although the coder had correctly entered the descriptive key codes during the test model training session, it had

been a few weeks since the coder training session, and the researcher had not properly gone over what “X” would be used for. An email was sent to both coders explaining the issue and if the coders ran into any other problems with the coding manual instructions, the researcher asked to be notified. No other issues were noted during the coding process. The coders notified the researcher via email or in person when their coding was completed. All three coders completed the data coding by March 2, 2018.

### **Data Analysis**

Initial coders’ results were transferred onto Excel and Google spread sheets for comparison, intercoder agreement calculations, and determination of emergent relevant native ads. The coding analysis software program Atlas.ti was also utilized to assign key phrases or textual descriptions to interpret the relevant native ads for the semiotic analysis by the researcher. Both Excel and Google Sheets software were employed to generate charts and pivot tables for this study.

## **RESULTS**

### **Content Analysis Results**

The purpose of employing the content analysis was to find the most relevant native ads in relation to their breaking news stories. During the data gathering process, it was noted that some native ads only partially replicated the content in which they were embedded. Depending on the mobile news app viewed, some native ads contained only a text headline, whereas its corresponding breaking news story headline contained both text and a photo/graphic image. Moreover, some of the native ad headlines appeared more like traditional ads rather than news story headlines (see appendix B, figure 26), while other native ads replicated their corresponding breaking news headlines with much similarity (see appendix B, figure 67).

### **Intercoder Agreement**

In order to relate basic validation of the coding scheme design, all coded data was compared between coders and a percentage of intercoder agreement was calculated. Neuendorf (2002) argues that intercoder reliability is essential when two or more human coders are utilized in a research study. In order to assess reliability for this study, it was necessary to compare how each individual coder assigned descriptive topic codes to both the breaking news stories and their corresponding native advertisements. Intercoder agreement looks at how coders agree with one another about the precise values they assign to a changing set of units or as Neuendorf (2002) states, intercoder agreement “looks at hits and misses” (p. 144). In the context of this study, would all three coders be

able to view multiple native ads and breaking news story headlines and agree what the ads and story headlines were about?

It was an important factor to the researcher that all three coders would have a high level of intercoder agreement with regard to the matching descriptive topic codes. If all three coders agreed that a particular breaking news story covered a certain topic(s), and an accurate topic code was provided in the key codes, then the coding scheme had a sufficient and varied amount of descriptive codes to label the news story headline topic(s). Additionally, because native ads tend to replicate the media that they are embedded in, the descriptive news topic codes would also be relatable to the native ads themselves. The intercoder agreement was calculated by loading all three coders' data into Excel spreadsheets and separated by each mobile news app (see appendix A, table 8). If all three coders matched one or more descriptive topic code(s) across a news story or native advertisement, the numeral one was placed in the total value column. If all three coders did not match codes across a particular breaking news story or native ad, the numeral zero was placed in the total value column. The agreement percentage was calculated by dividing the amount of matching codes by the amount of news stories and native ads for each mobile news app. The results of the intercoder agreement showed that the NBC News mobile app had the highest percentage of intercoder agreement at 91.67 percent. The FOX News app was second with 83.33 percent of intercoder agreement.

CBS News had the third highest intercoder agreement at 77.78 percent, and both ABC News and CNN tied with an intercoder agreement of 75 percent (see figure 1).

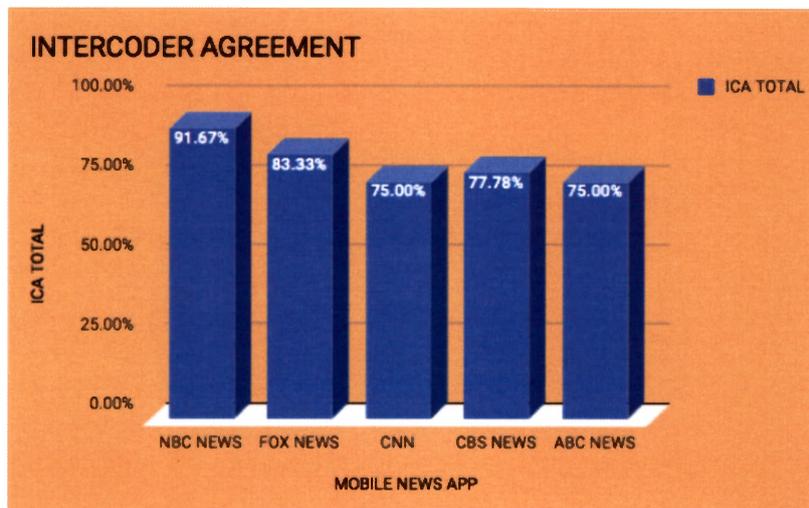


Figure 1: Bar Graph Depicting Percentage of Intercoder Agreement Per Mobile App

### Most Relevant Native Ads

The purpose of this study is to find the most relevant native ads embedded within breaking news stories across five mobile news applications, therefore, all coding data results were transferred to Excel spreadsheets in order to calculate and determine which native ads received the most matching codes (see appendix A, table 7). The most relevant native ads were determined by the total amount of matching codes that were assigned by each coder to a particular native ad in relation to that native ad's breaking news story. Matching codes were first determined and calculated for each news story. If at least two coders assigned a matching topic code to a particular news story, that topic

code was carried over to the total matched topic code(s) column. Additionally, when any coder assigned a topic code(s) to the corresponding native ad, those topic codes were carried over to the total matched topic codes column. The top four native ads were then ranked from highest matched codes to lowest matched codes (see table 3).

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Table 3

*Top Four Native Ad Matched Topic Codes*

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Mobile News App	Story #	Native Ad #	Total Matched Codes
ABC NEWS	1	2	7
NBC NEWS	3	1	6
NBC NEWS	3	3	6
FOX NEWS	1	2	5

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Of the forty-two native ads coded in the content analysis, it was determined that ABC News story #1 which contained the breaking news headline, “Supreme Court declines Trump administration’s request to hear DACA case” had the most relevant native advertisement in this study. Its corresponding native ad #2 contained the headline, “No one wants Princess Eugenie’s mother at the royal wedding. Here’s why.” Native ad #2 matched its news story topic in the categories: political, international, and social issue.

NBC News mobile app story #3 tied for second and third most relevant native ad matched topic codes. The NBC News story #3 contained the breaking news headline, “Trump defends arming teachers to stop a ‘sicko shooter.’” Its corresponding native ad #1 contained the headline, “Australia seeks to abolish modern slavery,” while its corresponding native ad #3 contained the headline, “Slain teacher told fiancé what to say if he died in a shooting.” Native ads #2 and #3 matched their news story topic in the categories: political, crime, and social issue.

The fourth ranked most relevant native ad was FOX News story #1 which contained the headline, “Supreme Court rejects Trump appeal on DACA.” Its corresponding native ad #2 contained the headline, “We’ve never seen congressional resignations like this before.” Native ad #2 matched its news story topic in the categories: political, international, and social issue.

### **Mobile News App Ranking by Matching Topic Codes**

The five mobile news applications studied were ranked by which app contained the most amount of native ad matching topic codes in relation to all three breaking news stories within each mobile news app. The results showed that NBC News received the most amount of native ad matching topic codes, 27 total, when all three news stories were combined across all three coders’ data. NBC News mobile app also contained two of the top four most relevant native ads. ABC News mobile app received the second most amount of native ad matching topic codes, 18 total, followed by Fox News, 13 total, CBS News, 9 total, and lastly CNN, 6 total.

The native advertisements that were embedded into breaking news stories on the NBC News mobile app were deemed the most relevant compared to the other four mobile news apps analyzed for this study (see figure 2).

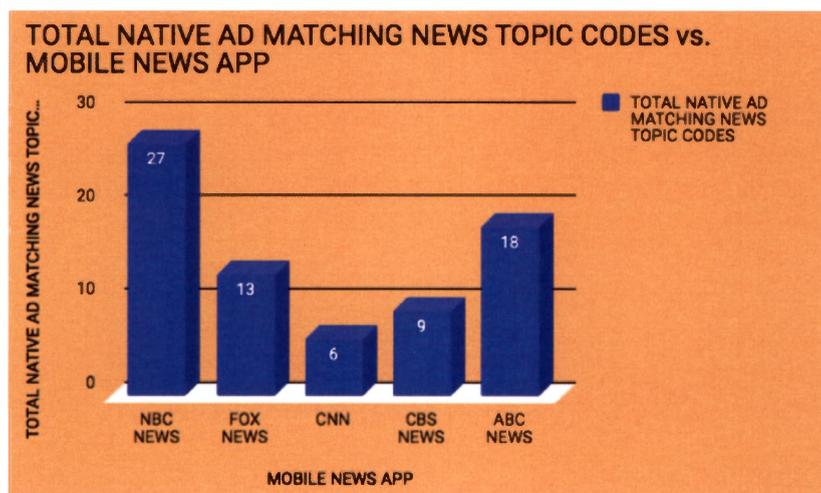


Figure 2: Bar Graph Depicting Percentage Ranking of Most Native Ad Matching Topic Codes Per Mobile News App

### Semiotic Analysis Results

The top four ranked relevant native ads were analyzed using the semiotic sign division model developed by Morris (1964, 1971). The researcher anticipated that a secondary analysis of the most relevant native ads would be necessary after the content analysis was complete in order to deconstruct the multi-layered interpretations that emerge when relevant native advertisements are embedded within breaking news stories. According to Bignell (2002), “The semiotic analysis of advertising assumes that the meanings of ads are designed to move out from the page or screen on which they are

carried, to shape and lend significance to our experience of reality” (p. 30). It can be argued that native ads serve another function other than enticing a viewer to click on the ad. Native ads generate meanings that may relate ideological or cultural ideas to the viewer. Native advertisements represent signs in so far as they signify and are open to interpretation. Copley (2001) states that a sign is *interpreted* from the view of the sign or object, and that the *interpretant* “is what makes the interpreted sign possible” (p. 262). Signs can create meaning when interpreted, and these meanings can reflect an interpreter’s view about society and culture.

After the top four relevant native ads were revealed, the researcher applied the three sign divisions of syntactics, semantics, and pragmatics to deconstruct each relevant native ad and corresponding breaking news headline in order of ranking. The syntactic analysis of the top four relevant native ads and breaking news headlines includes detailed descriptions of how color hues contained in both text and graphics signify meaning or symbolism. Zettl (2008) suggested that color could intensify an event or even set the mood or tone. Different hues within a color plate or wheel may evoke varied feelings or beliefs within the viewer. He noted that color symbolism is learned and varies between cultures, religions, and even time periods (Zettl, 2008, pp. 72-76). Therefore, the color hues deconstructed in the syntactic analysis are based on ideas by Zettl (2008) and interpreted by the researcher.

The following tables represent how the top ranked native ads and their corresponding breaking news headlines were analyzed by incorporating the three semiotic sign divisions into a model.

In order of native ad ranking, the first native ad and breaking news headline that was analyzed was ABC News story #1, (see figure 3) and its corresponding native ad #2 from Auto Draft | The Cheat Sheet, (see figure 4). Both the breaking news headline and its corresponding native ad were combined into a table (see table 4) for comparative semiotic analysis. Because this particular ABC News headline and corresponding native ads contained only text, analyses of the graphic elements were not included.

When the ABC News story #1 headline is interpreted as a syntactic sign, the color red is symbolic in some cultures for expressing the feeling of danger or passion. Certainly, the current immigration debate evokes passion on both sides of the ideological spectrum as well as danger for immigrants in fear of deportation. On the semantic level, the connotative meaning that the headline evokes can also be viewed on both sides of the ideological spectrum. On one side, proponents of the Deferred Action for Childhood Arrivals (DACA) program may perceive the headline as hope for children of immigrants to continue residency and employment in the United States, whereas opponents of DACA may view the breaking news headline as a defeat for enforcing strict immigration law. On a pragmatic or contextual level, an interpretant may conclude that the news headline shows that the Supreme Court represents a system of checks and balances.

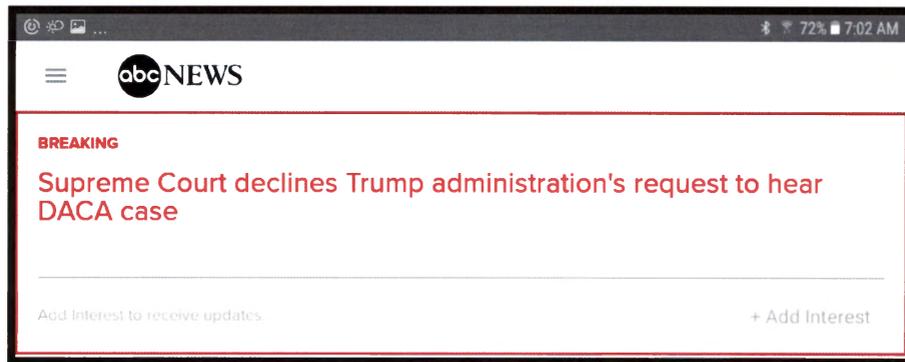


Figure 3: ABC News Story # 1

When the native ad #2 headline, from Auto Draft | The Cheat Sheet, (see figure 4) is interpreted as a syntactic sign, the color blue may signify trustworthiness, stability, or cleanliness. Because the native ad headline relates a story about the British royal family and the upcoming royal wedding, blue may be an appropriate color to evoke the feeling of regality in the viewer. A semantic or connotative meaning might reveal in the viewer that those of wealth and privilege, face the sort of problems usually portrayed in the media as being important only to those in high society. One pragmatic interpretation might be that Princess Eugenie's mother is a controversial figure in the royal family even if the viewer/interpretant is unsure of whom the headline is referring to.



Figure 4: ABC News Story # 1, Native Ad # 2

Table 4

*Semiotic Analysis of ABC News Story # 1, Native Ad # 2*

ABC NEWS	<i>Figure 2: ABC News Story # 1</i>	<i>Figure 3: ABC Native Ad # 2</i>
Syntactic (Structural) Interpretation	Text: <ul style="list-style-type: none"> <li>Red font symbolizes danger, passion, power, fire, action</li> </ul>	Text: <ul style="list-style-type: none"> <li>Blue font symbolizes trustworthiness, stability, cleanliness</li> </ul>
Semantic (Connotative) Interpretation	Text: <ul style="list-style-type: none"> <li>Hope for children of immigrants</li> <li>Defeat for proponents of enforcing strict immigration law</li> </ul>	Text: <ul style="list-style-type: none"> <li>Wealth and status are not free from so-called "First-world problems"</li> </ul>
Pragmatic (Contextual) Interpretation	Text: <ul style="list-style-type: none"> <li>Supreme Court represents a system of checks and balances</li> </ul>	Text: <ul style="list-style-type: none"> <li>Princess Eugenie's mother is a controversial figure in the royal family</li> </ul>

The second native ad and breaking news headline that was analyzed was NBC News story #3, (see figure 5) and its corresponding native ad #1, from FTI Journal (see figure 6). Both the breaking news headline and its corresponding native ad were combined into a table (see table 5) for comparative semiotic analysis.

The three sign divisions were analyzed incorporating both text and graphic interpretation elements. On a syntactic level, the NBC News Story #3 text contains elements of the colors red and white. The word "breaking" is in red, which again evokes the feeling of danger, passion, or action, although in some cultures, red signifies good

luck (Zettl, 2008, p. 72). The color white is used in the type font to separate the words from the graphic, but the color white also evokes the feeling of purity, cleanliness, innocence, and safety as the photo shows not only the white walls of the room, but the white clothing of the students. The photo may also relate the president's authority, as the students in the photo appear to look at the president for answers to the problem of school shootings. A viewer's semantic interpretation may reveal that President Trump's use of the phrase "Sicko shooter" insinuates that school shooters are mentally ill or more broadly, that the school shooting dilemma is also a mental health issue. Another semantic interpretation in the photo may be that the young students are possibly concerned with the president's solution of arming teachers to solve the school-shooting problem. The student's facial expressions appear to be that of worry or concern. On a pragmatic level, both the text and photo evoke the perception that President Trump is stating his controversial solution to the school shooting issue, while the students listen intently.



*Figure 5: NBC News Story #3*

The corresponding native ad #1, from FTI Journal relates to a story about modern slavery in Australia and how the government is trying to solve the problem. When interpreting the text on a syntactic level, the verb “Seeks” relates to the viewer that this is an important issue to the Australian government much in the same way the verb, “defends” in the breaking news headline emphasizes the importance of the school shooting solution to the president. The term “Modern Slavery” directly relates to the graphic illustration that the viewer sees of modern office workers chained to their various positions within the office. The graphic colors of the blue walls and floors represent power, stability, loyalty, trust and confidence, while the yellow colored ceiling may signify caution, cowardice, joy, or energy.

Because yellow is often associated with sunlight, it is considered a high-energy color that may be used to intensify an event (Zettl, 2008, p.74). The semantic interpretation of the text headline may evoke the astonishment in the viewer that slavery is still a huge problem even in large modern Western world countries like Australia. The powerful graphic illustration may connote that both the office worker and housekeeper are victims of modern slavery, and that exploited workers are a result of greed on the part of big business because the modern office is usually associated with white-collar workers. A contrary connotation might be that office workers work long hours in order to earn more pay, and as a result they are in a prison of their own making. A pragmatic view of the graphic may be that even office workers are susceptible to the growing problem of modern slave labor. The textual pragmatic interpretation may be that some day Australia will pass new laws that will abolish modern day slavery.



Figure 6: NBC News Story #3, Native Ad #1

Table 5

*Semiotic Analysis of NBC News Story # 3, Native Ad # 1*

NBC NEWS	<i>Figure 4: NBC News Story # 3</i>	<i>Figure 5: NBC Native Ad # 1</i>
Syntactic (Structural) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>• Red block with the words "breaking" symbolizes danger, passion, power, fire, action</li> <li>• The verb "defends" relates that the solution proposed by Trump is under attack and is in need of protection</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>• Photo is framed so that the students are looking at Trump for answers to the dilemma</li> <li>• Recurring color white in students' clothing, walls, and American flag represents innocence, safety, cleanliness, purity</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>• The verb "Seeks" relates the importance of the issue to Australia</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>• Blue walls and floors symbolizes power, stability, loyalty, trust and confidence</li> <li>• Yellow ceiling symbolizes caution, cowardice, joy, energy</li> </ul>
Semantic (Connotative) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>• 'Sicko shooter' comment insinuates that school shooters are mentally ill</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>• Young students are possibly concerned with the president's solution of arming teachers</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>• Slavery is still a huge problem even in a large, modern country like Australia</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>• Both the office worker and housekeeper are victims of modern slavery</li> <li>• Poor and exploited workers are a result of greed on the part of big business</li> </ul>

NBC NEWS

*Figure 4: NBC News Story # 3**Figure 5: NBC Native Ad # 1*Pragmatic (Contextual)  
Interpretation

Text:

- President Trump defends controversial solution for solving school shooting problem

Graphic:

- Students listen intently as President Trump relates a solution for stopping school shooters

Text:

- New laws will abolish modern slavery

Graphic:

- Even office workers are susceptible to the growing problem of modern slave labor

The third native ad analyzed, NBC News Story #3, Native Ad #3, from Newsmax, (see figure 7) was also embedded within the same breaking news headline, NBC News story #3, (see figure 5). Both the breaking news headline and its corresponding native ad were combined into a table (see table 6) for comparative semiotic analysis. Because the semiotic deconstruction of NBC News story #3 was described earlier, only native ad #3 from Newsmax is deconstructed in the following text. Native ad #3's headline and graphic image relates the story of a slain teacher who died in a school shooting. It is unclear by viewing the headline or graphic that this native ad is referring to the same school shooting that NBC News story #3 is referring to. On a syntactic level the text color in the headline is a blackish grey. Black may symbolize death, evil, power, or mystery. Zettl (2008) noted that some cultures actually use white or pink to symbolize death (Zettl, 2008, p. 72). The verb "slain" generally means that one has been killed by a violent act and in the context of the headline; the verb is used for dramatic effect. The

colors that are present in the photo may be interpreted in various ways. One student who is carrying the casket is in red, which symbolizes blood, danger, fire, or passion. The other student is wearing a green shirt that may signify harmony, freshness, or fertility. The red and green shirts seem to contrast each other symbolically. The other notable color in the photo is that of the casket which is in white. As stated earlier, the color white symbolizes light, goodness, faith, and purity.

The semantic interpretation reveals similar connotations as the breaking news headline. The textual connotation may evoke the feeling that the school gun violence dilemma is so widespread that teachers expect to die in a school shooting. The graphic photo connotes the idea that instead of learning, students are burying their “slain” teachers because of school shooters. A pragmatic view of the text headline may be that the teacher had a premonition or feeling that he would die at the hands of a school shooter, so he left verbal instructions with his fiancé on what to say to the news media. The image of students carrying the casket of their slain teacher reinforces the importance of the school shooting issue.



Figure 7: NBC News Story #3, Native Ad #3

Table 6

*Semiotic Analysis of NBC News Story # 3, Native Ad # 3*

NBC NEWS	<i>Figure 4: NBC News Story # 3</i>	<i>Figure 6: NBC Native Ad # 3</i>
Syntactic (Structural) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>Red block with the words "breaking" symbolizes danger, passion, power, fire, action</li> <li>The verb "defends" relates that the solution proposed by Trump is under attack and is in need of protection</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Photo is framed so that the students are looking at Trump for answers to the dilemma</li> <li>Recurring color white in students' clothing, walls, and American flag innocence, safety, cleanliness, purity</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>Blackish grey font. Black symbolizes death, evil, or power.</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Student wearing red shirt symbolizes danger, fire, blood or passion. Student wearing green shirt symbolizes harmony, freshness, or fertility.</li> <li>The white coffin symbolizes light, goodness, faith, and purity</li> </ul>
Semantic (Connotative) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>'Sicko shooter' comment insinuates that school shooters are mentally ill</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Young students are possibly concerned with the president's solution of arming teachers</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>The school shooting problem is so widespread that teachers expect to die in a school shooting</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Students are now burying their teachers because of gun violence</li> </ul>

NBC NEWS	Figure 4: NBC News Story # 3	Figure 6: NBC Native Ad # 3
Pragmatic (Contextual) Interpretation	<p data-bbox="632 463 690 489">Text:</p> <ul data-bbox="678 495 968 634" style="list-style-type: none"> <li data-bbox="678 495 968 634">• President Trump defends controversial solution for solving school shooting problem</li> </ul> <p data-bbox="632 640 728 666">Graphic:</p> <ul data-bbox="678 672 968 804" style="list-style-type: none"> <li data-bbox="678 672 968 804">• Students listen intently as President Trump relates a solution for stopping school shooters</li> </ul>	<p data-bbox="1004 463 1062 489">Text:</p> <ul data-bbox="1050 495 1414 634" style="list-style-type: none"> <li data-bbox="1050 495 1414 634">• Headline implies that the teacher may have had a premonition that they would die at the hands of a school shooter</li> </ul> <p data-bbox="1004 640 1100 666">Graphic:</p> <ul data-bbox="1050 672 1414 778" style="list-style-type: none"> <li data-bbox="1050 672 1414 778">• Students carrying the casket of their slain teacher reinforce the importance of the school shooting issue.</li> </ul>

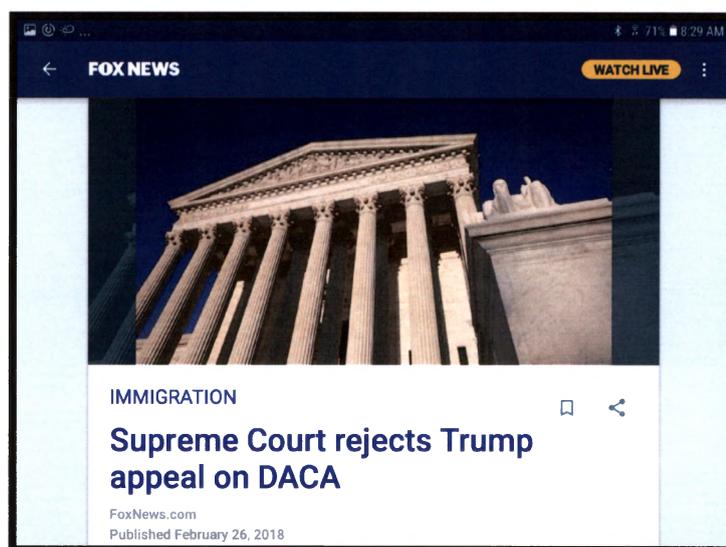
The fourth native ad and breaking news headline that was analyzed was FOX News Story #1, (see figure 8) and its corresponding native ad #2, from FiveThirtyEight, (see figure 9). Both the breaking news headline and its corresponding native ad were combined into a table (see table 7) for comparative semiotic analysis.

The breaking news headline reports on the Supreme Court's rejection of President Trump's appeal that the government ends the DACA program. In FOX News story #1, a viewer may note the recurring color blue, which symbolizes power, knowledge, trust, wisdom, and loyalty. A viewer's syntactic interpretation of the Supreme Court building's white columns may symbolize light, goodness, faith, and purity. Also, the low-angle camera shot of the tall columns symbolizes the power of the subject (Zettl, 2008). The columns and statues are framed in a way that reinforces their importance and command.

A connotative interpretation of the news headline text may relate the idea that the Supreme Court is protecting the rights of immigrant children to remain in their adopted

country. On the other side of the ideological spectrum, the text may evoke the idea that the Supreme Court should not impede the president's policies or that immigration is out of control. The powerful image of the Supreme Court pillars embodies the notion that justice is for all the people in the United States.

The pragmatic interpretation of the news headline text may see the Supreme Court as an entity that provides checks and balances to powerful figures like the president. The Supreme Court building image may relate the pragmatic view that this structure is where the rule of law is applied.



*Figure 8: FOX News Story #1*

The FOX News story's native ad #2, from FiveThirtyEight suggests that there have been many political resignations of late. Provided that the viewer recognizes the image of former Senator Al Franken in the accompanying photo, many cultural and ideological connotations may arise within this native ad's interpretation. The dark blue

text headline of the native ad symbolizes power and seriousness when examined through a syntactic lens. The photographic image of Al Franken reveals two interesting characteristics: (1) his facial expression is that of a frown, (2) the subject is looking away from the viewer and not making eye contact. These two facets may symbolize embarrassment or dishonesty.

A viewer's semantic read of the native ad text may be that many politicians are resigning due to inappropriate sexual behavior towards their subordinates or colleagues. Additionally, the recognized image of Al Franken may evoke the idea that a very well known celebrity was taken down by the growing #MeToo campaign which is a movement that addresses victims of sexual harassment and assault (Me Too, n.d.). This interpretation is reinforced by the headline text, "We've Never Seen...Like This Before," meaning that in the past bad behavior might have gone unchecked by those in power.

Finally, the pragmatic interpretation by the viewer may be that there have been several high profile congressional resignations in recent times. The corresponding image of former Senator Al Franken is one example of several high profile politicians who have resigned from office.



Figure 9: FOX News Story #1, Native Ad # 2

Table 7

*Semiotic Analysis of FOX News Story # 1, Native Ad # 2*

FOX NEWS	Figure 7: FOX News Story # 1	Figure 8: FOX Native Ad # 2
Syntactic (Structural) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>Headline color blue symbolizes power, knowledge, trust, wisdom, loyalty</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Blue sky symbolizes power, knowledge, trust, wisdom, loyalty</li> <li>White columns symbolize light, goodness, faith, and purity</li> <li>Low-angle camera shot symbolizes power of the subject</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>Dark blue text headline symbolizes power and seriousness</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Facial expression is that of a frown.</li> <li>The subject is looking away from the viewer</li> </ul>
Semantic (Connotative) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>The Supreme Court is protecting the rights of immigrant children to remain in their adopted country</li> <li>Supreme Court should not impede the president's policies</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>The powerful Supreme Court pillars embody the notion that justice is for all people.</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>Many politicians are resigning due to inappropriate sexual behavior towards their subordinates or colleagues</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Senator Al Franken is one of the most well known celebrities to be taken down by the #MeeToo movement</li> </ul>
Pragmatic (Contextual) Interpretation	<p>Text:</p> <ul style="list-style-type: none"> <li>The Supreme Court provides checks and balances to powerful figures like the president</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>The Supreme Court building is where the rule of law is applied.</li> </ul>	<p>Text:</p> <ul style="list-style-type: none"> <li>There have been several high profile congressional resignations of late</li> </ul> <p>Graphic:</p> <ul style="list-style-type: none"> <li>Senator Al Franken is one example of several high profile politicians who have resigned from office.</li> </ul>

When the relevant native ads and their corresponding breaking news headlines were analyzed, a multitude of interpretations and meanings were generated. Morris (1964) argued that the three sign divisions, syntactics, semantics, and pragmatics are single components of semiotics but mutually exclusive components as well. The three components must rely on each other to define a sign correctly. They are in fact interdependent.

It is interesting to note in the results that the top four relevant native ads not only replicated the structure and design of the content in which they were embedded, but they also matched the mood of the breaking news story headlines. Both the news stories and the native ads were related by the idea that they were about conflict. Two of the breaking news stories were about conflict over the DACA program, while the other breaking news story was about conflict over the gun control issue due to the recent rise in school shootings. The native ads evoke conflict because they relate the following issues: social conflict, modern slavery, school shootings, and the consequences of sexual harassment.

The remaining data that was coded for this study (see appendix B) may reveal similar results relating to how the native ads match the mood or tone of their breaking news stories. This study examines only the top four relevant native ads, but continued research could also compare how irrelevant ads may or may not match the mood or tone of breaking news stories.

### **Method Limitations**

Some perceived limitations of this study were revealed due to the sample size of the native ads selected and the choice of news media apps used to collect the native ads. According to Krippendorff (2003) sampling validity is measured by how accurately the content sampled represents the population it was taken from. For this study, the researcher chose both the media (five major news apps) and the medium (mobile devices) to obtain the news stories and native ads for data. This method may have introduced unforeseen biases from the researcher even though additional coders were utilized for the analyses. Because the researcher chose which breaking news stories and native ads to capture for the content analysis, it would be difficult to truly capture random data with no bias toward a particular breaking news story that may be of interest to the researcher capturing the data. Additionally, by employing a semiotic analysis of the relevant native ads that was then interpreted by the researcher, the interpretations of those ads may differ between individuals as well as future analysts who may want to replicate this study. To help lessen biases in a study, Penn (2000) argues that integrating a semiotic analysis with the techniques used in a content analysis help to address the issue of subjectivity of the overall analysis. Therefore, this study incorporates both semiotic and content analysis techniques in order to maximize the rigorous results of the analysis. Another perceived limitation of this study might relate to how the native ads appeared on the researcher's mobile devices due in part to targeted advertising.

### **Targeted Advertising**

A concerted effort was made by the researcher to lessen and in some cases limit the degree of personally targeted ads across all five mobile news apps. Targeted and personalized advertising allows Internet service providers to individually target ads to a consumer by directly tracking the multitude of websites that a consumer visits (Johnson, 2013; Google, 2018). Additionally, mobile apps can target their advertising to a consumer through various means. According to data facts obtained from Google (2018), the following are ways in which mobile apps target individual users based on their mobile activity:

- Types of websites you visit and mobile app activity on your device
- Information in your Google Account, like your age range and gender
- The time of day
- Information a you gave to an advertiser or website
- Websites and apps you've visited that belong to businesses that advertise with Google
- Your activity on another device
- Other activity on Google services, like Google ads

(Google, 2018, p. 1).

Additionally, advertisers can target individuals by mobile device location. According to Simpson (2016) location-based advertising allows advertisers to personalize their ads to someone based on that person's current location and time of day. This is one area where

it was not possible for the researcher to lessen or limit. It is unknown to what degree location-based advertising might have contributed to the data collection process.

There is an option to lessen the amount of individual ad targeting located in mobile device settings or online. For example, a mobile device user can turn off Google ad targeting by accessing the settings in their mobile device (see figure 10).

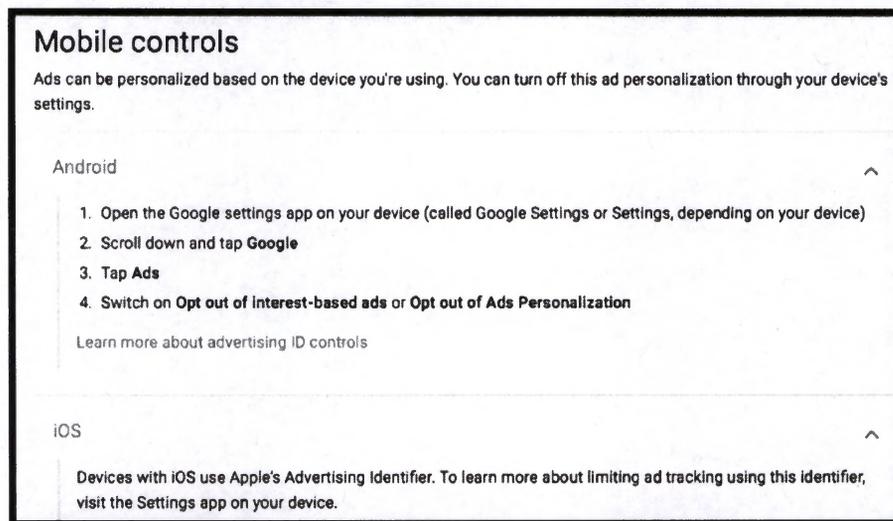


Figure 10: Google Ad Settings for Mobile Devices (Google, 2018)

Although it might make sense to allow for individual targeted ads on the researcher's mobile devices because more relevant native ads may appear, in fact allowing the targeted ads might skew the results of the content analysis. Ads that are relevant to the main researcher would not necessarily be deemed relevant to the breaking news story that was being captured for the content analysis. Additionally, mobile news applications change certain design layouts as they are updated in any given mobile

device. Once the data-gathering phase had begun, the researcher refrained from updating the five mobile apps' software in order to retain continuity within each mobile news app.

## CONCLUSION

The research questions posed for this study asked to what degree native ads are perceived as relevant or irrelevant within a breaking news story across mobile news applications? Additionally, what denotative and connotative meanings are generated when relevant native advertisements are embedded within breaking news stories? By employing a content analysis, news story headlines and their corresponding native ads were coded and analyzed. The content analysis helped to reveal the degree to which native ads are perceived as relevant or irrelevant. When all the native ads were coded and analyzed, the top four relevant ads emerged on the mobile news apps, ABC News, NBC News, and FOX News. The top four most relevant native ads were then interpreted and deconstructed using a semiotic approach in the form of a semiotic model developed by Morris (1964, 1972). The researcher noted the denotative and connotative meanings of the relevant native ads by applying the Morris model of sign division. By examining native ads through a combined lens of syntactics, semantics, and pragmatics, a deeper understanding of their denotative and connotative meanings was revealed.

The basis for the inclusion of relevant native ads into a semiotic analysis stems from the researcher's belief that an advertisement that is more connected with its main subject matter may have a greater impact on how that subject matter, in this instance, the breaking news story, is perceived and evaluated by the viewer. Contrarily, a more irrelevant native ad may appear as less pertinent or more disconnected from the main subject and therefore have less impact on the main subject. Brill (1999) explained that the

relationship between advertising and news content has maintained a long tradition from newspapers to the Internet. Advertisers have often placed ads for goods or services within news content that is harmonious. Ads for travel traditionally appeared in the travel sections of a newspaper, as well as automotive ads appearing in the automotive section of a newspaper or in both cases, digital online news sites. Incorporating new advertising methods such as native advertising into newer digital news content technologies such as mobile applications may pose unforeseen challenges for both advertisers and content providers. In the context of a breaking news story, a viewer may interpret an advertisement with varied connotative meanings that were unintended by the advertiser or content provider. These unintended meanings may contribute to a viewer's skewed interpretation of the factual news story. An example of how a native ad might relate unintended connotative meanings emerged in this study with NBC News story #3, ("Trump defends arming teachers to stop a 'sicko shooter'"), and its corresponding native ad #3, from Newsmax, ("Slain teacher told fiancé what to say if he died in a shooting"). The native ad was found to be relevant to the news story because of the total amount of matching descriptive topic codes assigned by the coders. On a surface level, a viewer may question why a story about a shooting crime would contain an advertisement about a shooting crime victim?

Previous research examined how advertisements placed on Internet news sites impacted the value of news stories (Yang & Oliver, 2004) and how viewers recognized

and interacted with sponsored advertisements (Wojdyski, 2016). As the consumption of digital news on mobile platforms increases, it is the hope of the researcher that advertisers and content providers may view this study and that more consideration is given to native ad content when it is embedded within digital news content.

### **Future Research**

The methodology and findings of this study contribute to existing research into advertising effects on digital news platforms in following ways: (1) by breaking down native ads into relevant and non-relevant categories, one or both categories can be analyzed for various research outcomes; (2) by employing a semiotic approach to reveal their relationship, in a connotative sense, with breaking news stories, native ads on mobile news platforms can be deconstructed to gain a better understanding of how the average viewer perceives them; (3) by assigning descriptive news story topics to native ads as they appear within a digital news story, a coding scheme can be used to determine how closely native advertisements replicate the news content they are embedded in.

How native advertisements are perceived as relevant or irrelevant in the context of a factual news story may depend on varied factors. A native ad that is deemed relevant would mean that the ad's content is relatable to its factual news story. By contrast, an irrelevant native ad would appear to clash with the factual news story. By measuring the relevancy of a native ad to its corresponding news story, and interpreting its semiotic meanings, future research could be conducted to examine the effects that relevant native advertisements have on the credibility of factual news content.

The results of this study may be utilized to launch further research into the effects of native advertisements on digital news viewers. It could be interesting to replicate this study on a national or even international scale by employing multiple mobile device users in different regions and capturing their native ad screenshots in order to reveal how geographic location affects the types of native ads that appear within mobile news apps. Additionally, surveys could be conducted on users' experiences with native ads to show how those ads may or may not affect brand credibility, ad credibility, or even news story credibility.

As this study examines native ads that appear only on national news brand mobile apps, another study may want to examine how native ads replicate news content in local digital news markets to see how targeted advertising pinpoints potential consumers of goods and services within that community.

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### Appendix A: Tables

Table 7

#### *Native Advertisement Matching Topic Codes Results*

<b>MATCHING TOPIC CODES: ABC NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>MATCHED TOPIC CODES</b>
STORY # 1	PO,SI,OT	PO,IN,SI	PO,IN,SI	PO,IN,SI
NATIVE AD #1	FI,ST	OT	WE,FI,ST	0
NATIVE AD #2	PO,IN,EN	IN,SI,EN	PO,IN,SI	7
NATIVE AD #3	FI	FI	PO,FI	1
STORY # 2	CR,HE,SI,DI	CR,SI,DI	CR,HE,SI,DI	CR,HE,SI,DI
NATIVE AD #1	ST	OT	SI,OT	1
NATIVE AD #2	FI,HE	FI	FI,HE,EN,ST,OT	2
NATIVE AD #3	FI,HE	FI,HE	FI,HE,ST,OT	2
STORY # 3	PO,CR,SI,DI	PO,CR,SI,DI	PO,CR,SI,DI	PO,CR,SI,DI
NATIVE AD #1	FI,OT	HE,DI	CR,FI,DI	3
NATIVE AD #2	FI,ST	WE,FI,ST	PO,FI,SI,ST	2
NATIVE AD #3	FI	FI	FI	0
				<b>TOTAL= 18</b>
<b>MATCHING TOPIC CODES: CBS NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>MATCHED TOPIC CODES</b>
STORY # 1	PO,SI	PO,SI	PO,IN,SI	PO,SI
NATIVE AD #1	FI,OT	IN,FI	FI,EN	0
NATIVE AD #2	<b>X</b>	<b>X</b>	<b>X</b>	X
NATIVE AD #3	<b>X</b>	<b>X</b>	<b>X</b>	X
STORY # 2	CR,SI,DI	CR,SI,DI	CR,HE,SI,DI	CR,SI,DI
NATIVE AD #1	SI, OT	FI,OT	SI,EN	2
NATIVE AD #2	HE, ST	HE,ST	HE,SI,ST,OT	1
NATIVE AD #3	<b>X</b>	<b>X</b>	<b>X</b>	X
STORY # 3	PO,CR,FI,SI,DI	PO,CR,DI	PO,CR,FI,SI,DI	PO,CR,FI,SI,DI
NATIVE AD #1	HE,ST	FI,HE,ST	HE,ST,OT	1
NATIVE AD #2	FI,OT	OT	SI,ST	2
NATIVE AD #3	WE,ST,DI	WE,IN,DI	WE,ST,DI,	3
				<b>TOTAL= 9</b>

<b>MATCHING TOPIC CODES: CNN</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>MATCHED TOPIC CODES</b>
STORY # 1	PO,SI,OT	PO,IN,SI	PO,IN,SI	PO,IN,SI
NATIVE AD #1	EN,OT	EN	EN,OT	0
NATIVE AD #2	IN,ST,OT	IN,FI	IN,EN,OT	3
NATIVE AD #3	HE	FI,HE,ST	HE,ST,OT	0
STORY # 2	CR,HE,SI,DI	CR,DI	CR,DI	CR,DI
NATIVE AD #1	HE,SI,ST	HE,SI,ST	HE,SI,ST	0
NATIVE AD #2	IN,FI,OT	IN,EN	IN,EN	0
NATIVE AD #3	HE,OT	EN,OT	HE	0
STORY # 3	PO,CR,HE,SI,OT	PO,CR	PO,SI,DI	PO,CR,SI
NATIVE AD #1	PO,FI	PO,FI	PO,FI	3
NATIVE AD #2	IN,FI,OT	EN,OT	IN,EN	0
NATIVE AD #3	OT	OT	HE,ST,OT	0
				<b>TOTAL= 6</b>
<b>MATCHING TOPIC CODES: FOX NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>MATCHED TOPIC CODES</b>
STORY # 1	PO,SI	PO,IN	PO,IN,SI	PO,IN,SI
NATIVE AD #1	FI,HE,ST	HE	FI,HE,ST	0
NATIVE AD #2	PO,SI	PO	PO,SI	5
NATIVE AD #3	FI,OT	SP,FI	SP,SI,EN	1
STORY # 2	CR,HE,DI,SI	CR,SI,DI	CR,HE,SI,DI	CR,HE,DI,SI
NATIVE AD #1	PO,FI	PO,FI	PO,FI	0
NATIVE AD #2	FI,ST,OT	FI,OT	EN	0
NATIVE AD #3	HE,ST	HE	HE,ST,OT	3
STORY # 3	PO,CR,HE,SI	PO,CR,FI,SI	PO,CR,HE,SI,DI	PO,CR,HE,SI
NATIVE AD #1	HE	HE	HE,SI	4
NATIVE AD #2	FI	FI	FI	0
NATIVE AD #3	FI	FI	FI	0
				<b>TOTAL= 13</b>
<b>MATCHING TOPIC CODES: NBC NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>MATCHED TOPIC CODES</b>
STORY # 1	PO,SI,OT	PO,SI	PO,IN,SI	PO,SI
NATIVE AD #1	PO,FI,OT	PO,EN,ST	PO,FI,SI,ST	4
NATIVE AD #2	FI,OT	OT	FI,SI	1
NATIVE AD #3	IN,ST,OT	IN,FI	WE,IN,FI	0
STORY # 2	CR,HE,SI,DI	CR,DI	CR,HE,SI,DI	CR,HE,SI,DI
NATIVE AD #1	CR,HE,ST,OT	CR,ST	SI,ST	4
NATIVE AD #2	FI,ST	FI,ST	FI,ST	0
NATIVE AD #3	IN,FI,OT	IN,FI,HE	PO,IN,FI,SI,ST	2

<b>MATCHING TOPIC CODES: NBC NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>MATCHED TOPIC CODES</b>	
STORY # 3	PO,CR,SI	PO,CR,IN,SI	PO,CR,SI,DI	PO,CR,SI	
NATIVE AD #1	PO,CR,IN,SI	IN,FI	PO,CR,IN,FI,SI,ST,DI		6
NATIVE AD #2	CR,FI,OT	CR,ST	CR,SI,ST		4
NATIVE AD #3	PO,CR,HE,SI,DI	CR,DI	CR,HE,SI,DI		6
				<b>TOTAL= 27</b>	

Table 8

*Intercoder Agreement Spreadsheet*

<b>MATCHING TOPIC CODES: ABC NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>All 3 Coders Matched One or More Codes</b>
STORY # 1	PO,SI,OT	PO,IN,SI	PO,IN,SI	1
NATIVE AD #1	FI,ST	OT	WE,FI,ST	0
NATIVE AD #2	PO,IN,EN	IN,SI,EN	PO,IN,SI	1
NATIVE AD #3	FI	FI	PO,FI	1
STORY # 2	CR,HE,SI,DI	CR,SI,DI	CR,HE,SI,DI	1
NATIVE AD #1	ST	OT	SI,OT	0
NATIVE AD #2	FI,HE	FI	FI,HE,EN,ST,OT	1
NATIVE AD #3	FI,HE	FI,HE	FI,HE,ST,OT	1
STORY # 3	PO,CR,SI,DI	PO,CR,SI,DI	PO,CR,SI,DI	1
NATIVE AD #1	FI,OT	HE,DI	CR,FI,DI	0
NATIVE AD #2	FI,ST	WE,FI,ST	PO,FI,SI,ST	1
NATIVE AD #3	FI	FI	FI	1
			<b>Match</b>	9
			<b>Total</b>	12
			<b>Intercoder Agreement (ICA)</b>	75.00%
<b>MATCHING TOPIC CODES: CBS NEWS</b>	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	<b>All 3 Coders Matched One or More Codes</b>
STORY # 1	PO, SI	PO,SI	PO,IN,SI	1
NATIVE AD #1	FI, OT	IN,FI	FI,EN	1
NATIVE AD #2	<b>X</b>	<b>X</b>	<b>X</b>	
NATIVE AD #3	<b>X</b>	<b>X</b>	<b>X</b>	

<b>MATCHING TOPIC CODES: CBS NEWS</b>				<b>All 3 Coders Matched One or More Codes</b>
	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	
STORY # 2	CR, SI,DI	CR,SI,DI	CR,HE,SI,DI	1
NATIVE AD #1	SI, OT	FI,OT	SI,EN	0
NATIVE AD #2	HE, ST	HE, ST	HE,SI,ST,OT	1
NATIVE AD #3	<b>X</b>	<b>X</b>	<b>X</b>	
STORY # 3	PO, CR,FI,SI,DI	PO,CR,DI	PO,CR,FI,SI,DI	1
NATIVE AD #1	HE,ST	FI,HE,ST	HE,ST,OT	1
NATIVE AD #2	FI,OT	OT	SI,ST	0
NATIVE AD #3	WE,ST,DI	WE,IN,DI	WE,ST,DI,	1
X = no more native ads were present			<b>Match</b>	7
			<b>Total</b>	9
			<b>ICA</b>	77.78%
<b>MATCHING TOPIC CODES: CNN</b>				<b>All 3 Coders Matched One or More Codes</b>
	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	
STORY # 1	PO,SI,OT	PO,IN,SI	PO,IN,SI	1
NATIVE AD #1	EN,OT	EN	EN,OT	1
NATIVE AD #2	IN,ST,OT	IN,FI	IN,EN,OT	1
NATIVE AD #3	HE	FI,HE,ST	HE,ST,OT	1
STORY # 2	CR,HE,SI	CR,DI	CR,DI	1
NATIVE AD #1	HE,SI,ST	HE,SI,ST	HE,SI,ST	1
NATIVE AD #2	IN,FI,OT	IN,EN	IN,EN	1
NATIVE AD #3	HE,OT	EN,OT	HE	0
STORY # 3	PO,CR,HE,SI,OT	PO,CR	PO,SI,DI	1
NATIVE AD #1	PO,FI	PO,FI	PO,FI	1
NATIVE AD #2	IN,FI,OT	EN,OT	IN,EN	0
NATIVE AD #3	OT	OT	HE,ST,OT	0
			<b>Match</b>	9
			<b>Total</b>	12
			<b>ICA</b>	75.00%
<b>MATCHING TOPIC CODES: FOX NEWS</b>				<b>All 3 Coders Matched One or More Codes</b>
	<b>CODER 1</b>	<b>CODER 2</b>	<b>CODER 3</b>	
STORY # 1	PO,SI	PO,IN	PO,IN,SI	1
NATIVE AD #1	FI,HE,ST	HE	FI,HE,ST	1
NATIVE AD #2	PO,SI	PO	PO,SI	1
NATIVE AD #3	FI,OT	SP,FI	SP,SI,EN	0



## Appendix B: Figures

Breaking news story headlines and corresponding native ad screenshots (in alphabetical order of mobile news app brand):

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ABC NEWS:

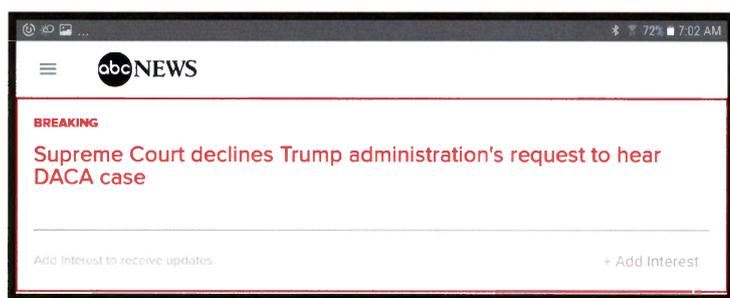


Figure 11: ABC News Story #1

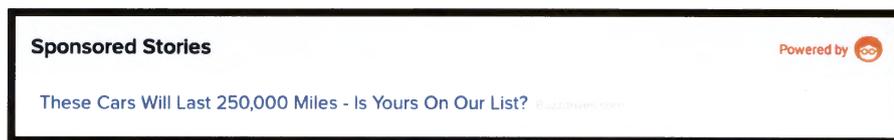


Figure 12: ABC News Story #1, Native Ad #1

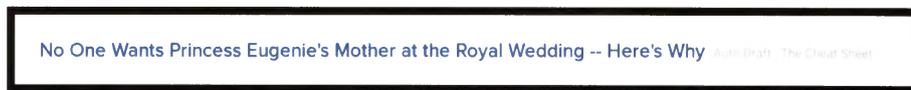


Figure 13: ABC News Story #1, Native Ad #2

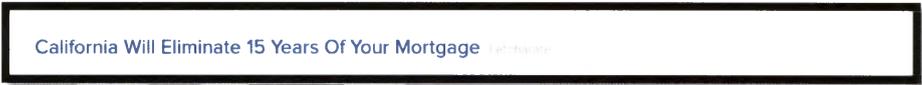


Figure 14: ABC News Story #1, Native Ad #3

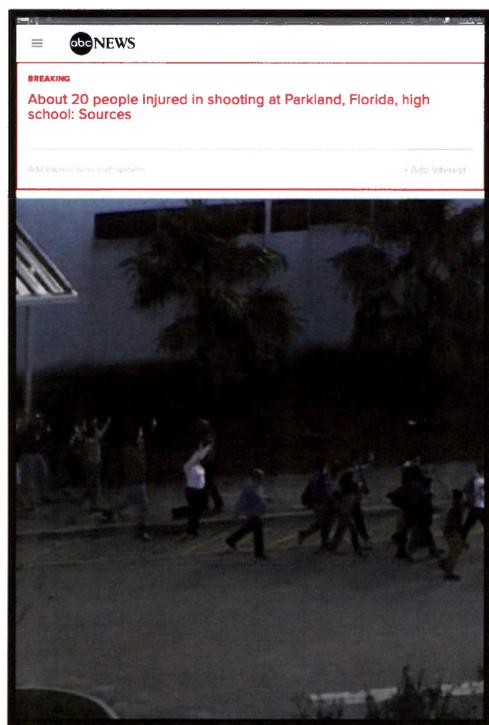


Figure 15: ABC News Story #2

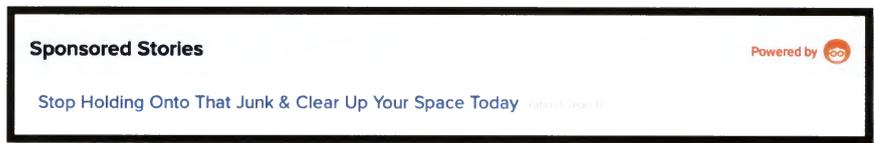


Figure 16: ABC News Story #2, Native Ad #1

Affordable Walk In Tubs That Have Style [Walk In Tubs Guide](#)

Figure 17: ABC News Story #2, Native Ad #2

8 Incredible Offers Seniors Are Entitled To In 2018 (#3 is for those with bad knees) [read this senior checklist](#)

Figure 18: ABC News Story #2, Native Ad #3



Figure 19: ABC News Story #3

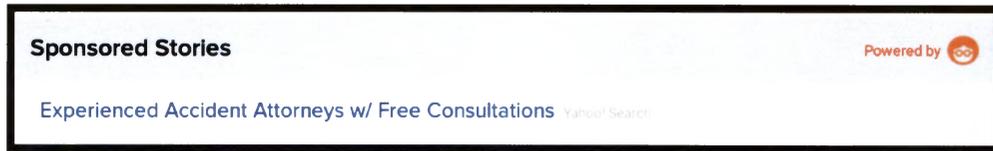


Figure 20: ABC News Story #3, Native Ad #1



Figure 21: ABC News Story #3, Native Ad #2



Figure 22: ABC News Story #3, Native Ad #3

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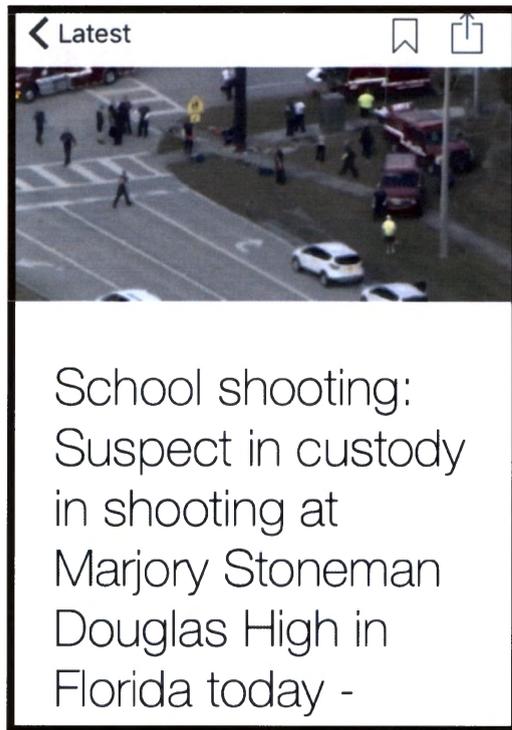
CBS NEWS:



Figure 23: CBS News Story #1



Figure 24: CBS News Story #1, Native Ad #1



*Figure 25: CBS News Story #2*



Figure 26: CBS News Story #2, Native Ad #1

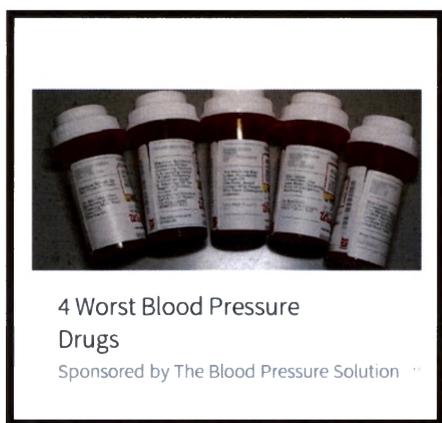


Figure 27: CBS News Story #2, Native Ad #2

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Figure 28: CBS News Story #3



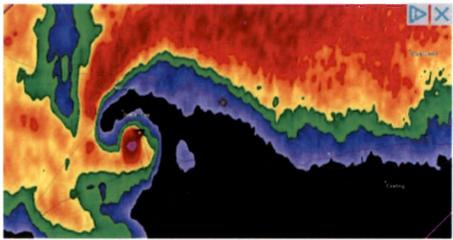
Figure 29: CBS News Story #3, Native Ad #1



Here's Why Guys Are Obsessed With This Underwear...

Sponsored by THE WEEKLY BRIEF | Mack Weldon

Figure 30: CBS News Story #3, Native Ad #2



**Severe Weather Updates**

Storm Updates in Your Zip Code. Get Ready Now for What Comes Next!

MyAccurateForecast.com



Figure 31: CBS News Story #3, Native Ad #3

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CNN:

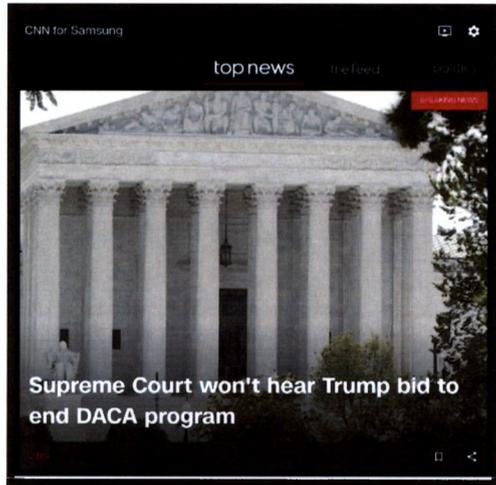


Figure 32: CNN Story #1



Figure 33: CNN Story #1, Native Ad #1



Figure 34: CNN Story #1, Native Ad #2



Figure 35: CNN Story #1, Native Ad #3

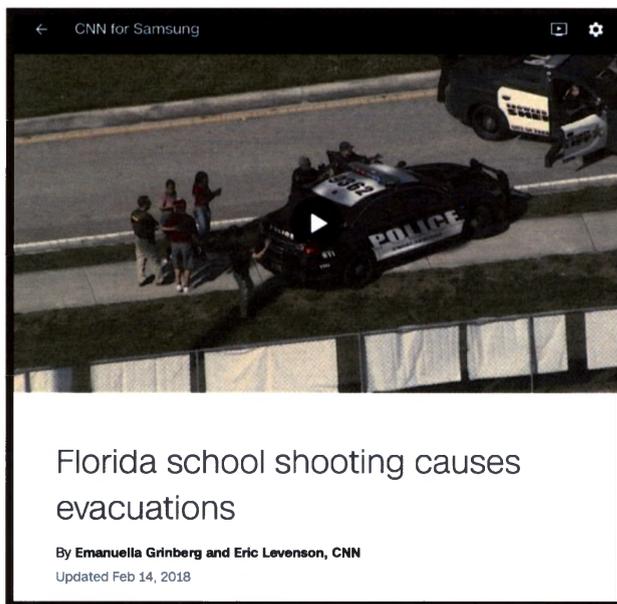


Figure 36: CNN Story #2

Paid Content Recommended by 



First Dose: 13 People Recall Their First HIV Med The Body

Figure 37: CNN Story #2, Native Ad #1



Incredible African Luxury Safari Packages Faqeo

Figure 38: CNN Story #2, Native Ad #2



What's the Most Comfortable Mattress? Yahoo Search

Figure 39: CNN Story #2, Native Ad #3

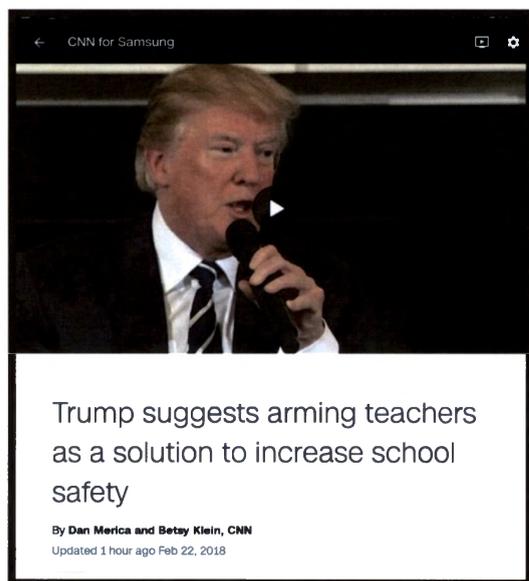


Figure 40: CNN Story #3

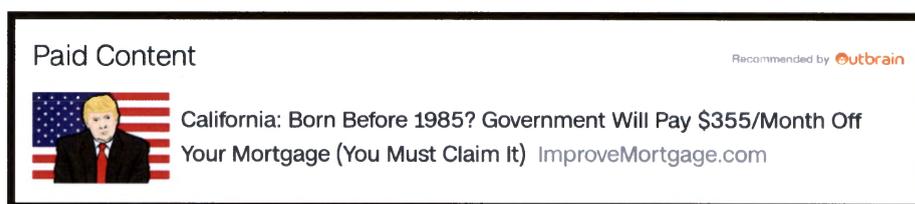


Figure 41: CNN Story #3, Native Ad #1



Figure 42: CNN Story #3, Native Ad #2

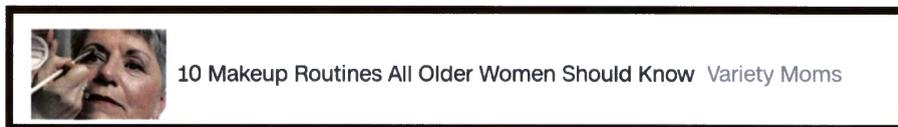


Figure 43: CNN Story #3, Native Ad #3

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FOX NEWS:



Figure 44: FOX News Story #1



Figure 45: FOX News Story #1, Native Ad #1



Figure 46: FOX News Story #1, Native Ad #2

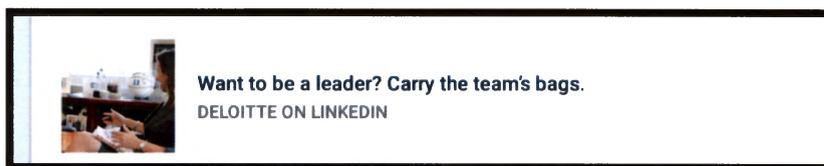


Figure 47: FOX News Story #1, Native Ad #3



Figure 48: FOX News Story #2, Native Ad #1



Figure 49: FOX News Story #2, Native Ad #1



Figure 50: FOX News Story #2, Native Ad #2



Figure 51: FOX News Story #2, Native Ad #3



Figure 52: FOX News Story #3



Figure 53: FOX News Story #3, Native Ad #1



Figure 54: FOX News Story #3, Native Ad #2

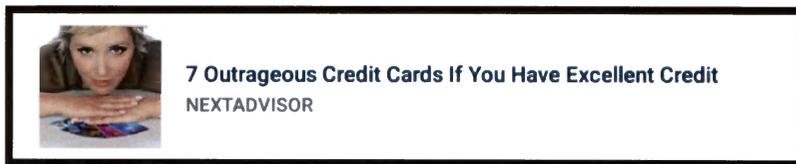


Figure 55: FOX News Story #3, Native Ad #3

NBC NEWS:

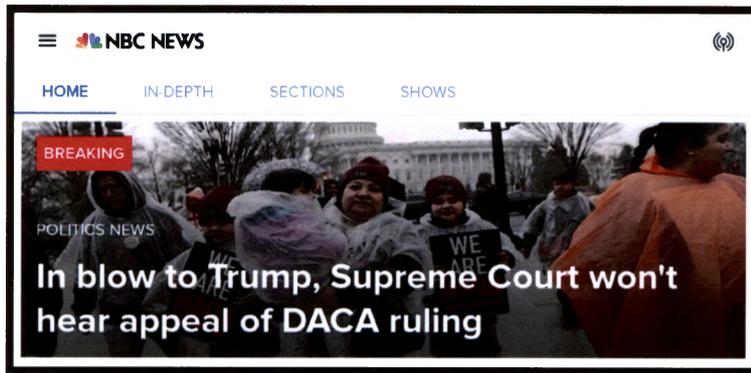


Figure 56: NBC News Story #1



Figure 57: NBC News Story #1, Native Ad #1

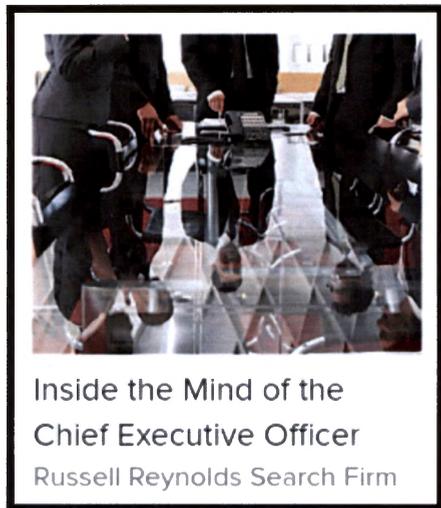


Figure 58: NBC News Story #1, Native Ad #2

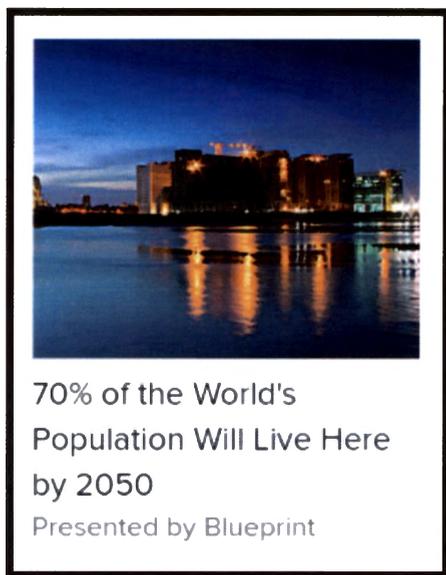


Figure 59: NBC News Story #1, Native Ad #3

**BREAKING: 'Number of fatalities' after shooting at Florida high school**

By Elizabeth Chuck  
U.S. NEWS | BREAKING  
9 minutes ago



Emergency responders at a school in Parkland, Florida.

Figure 60: NBC News Story #2



Is this the perfect home security?  
SimpliSafe

Figure 61: NBC News Story #2, Native Ad #1



Figure 62: NBC News Story #2, Native Ad #2



Figure 63: NBC News Story #2, Native Ad #3



Figure 64: NBC News Story #3



Figure 65: NBC News Story #3, Native Ad #1



Figure 66: NBC News Story #3, Native Ad #2

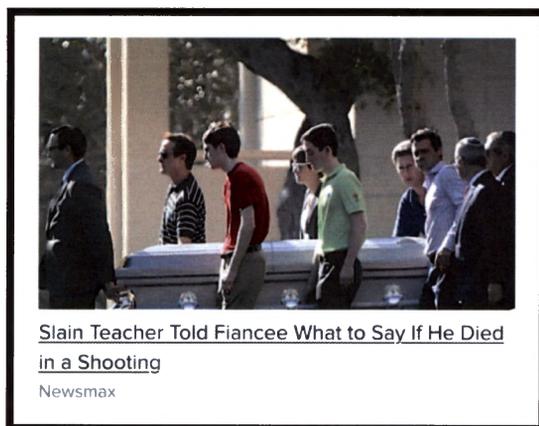


Figure 67: NBC News Story #3, Native Ad #3

## Appendix C

Breaking News Story and Native Ad Headlines (in alphabetical order by mobile app):

- ABC News
  1. “Supreme Court declines Trump administration’s request to hear DACA case”
    - I. “These cars will last 250,000 miles-is yours on our list?”
    - II. “No one wants Princess Eugenie’s mother at the royal wedding. Here’s why”
    - III. “California will eliminate 15 years of your mortgage”
  2. “About 20 people injured in school shooting at Parkland, Florida, high school: Sources”
    - I. “Stop holding onto that junk & clear up your space today”
    - II. “Affordable walk in tubs that have style”
    - III. “8 incredible offers seniors are entitled to in 2018 (#3 is for those with bad knees)”
  3. “Trump calls active shooter drills ‘a very negative thing’”
    - I. “Experienced accident attorneys w/ free consultations”
    - II. “California approves no cost solar program”
    - III. “Why is Quicken Loans urging Americans to switch to a 15-year fixed?”

- CBS News

1. "Supreme Court rejects Trump administration's appeal over DACA"
  - I. "How to save up to 40% on your next flight"
2. "School shooting: Suspect in custody in shooting at Marjory Stoneman Douglas High in Florida today"
  - I. "Love, thoughtfully"
  - II. "4 worst blood pressure drugs"
3. "Trump suggests bonuses for armed teachers in effort to prevent shootings"
  - I. "Search metastatic lung cancer treatment options"
  - II. "Here's why guys are obsessed with this underwear..."
  - III. "Severe weather updates"

- CNN

1. "Supreme Court won't hear Trump bid to end DACA program"
  - I. "Why older Americans are flocking to read 'The Great Alone'"
  - II. "1962 World's Fair visitors got a glimpse of the future. What came true?"
  - III. "Know the telltale differences between the flu and a cold"

2. "Florida school shooting causes evacuations"
    - I. "First dose: 13 people recall their first HIV med"
    - II. "Incredible African luxury safari packages"
    - III. "What's the most comfortable mattress?"
  
  3. "Trump suggests arming teachers as a solution to increase school safety"
    - I. "California: Born before 1985? Government will pay \$355/month off your mortgage (you must claim it)"
    - II. "The incredible African safari packages you have to see"
    - III. "10 makeup routines all older women should know"
- FOX News
    1. "Supreme Court rejects Trump appeal on DACA"
      - I. "Dental implants used to be costly-but not anymore"
      - II. "We've never seen congressional resignations like this before"
      - III. "Want to be a leader? Carry the team's bags"

2. "Florida high school under lockdown after reports of shooter, victims, police say"
  - I. "California: Born before 1985? Government will pay \$355/month off your mortgage (you must claim it)"
  - II. "Check out thew (sic) new lineup of 2018 SUVs that truly impress"
  - III. "Bladder cancer may spread if not diagnosed early"
3. "President wants teachers to have guns in schools, raise buying age to stop 'savage sicko' shooters"
  - I. "One man's story of living with Eczema"
  - II. "Why is Quicken Loans urging Americans to switch to a 15-year fixed?"
  - III. "7 outrageous credit cards if you have excellent credit"

- NBC News

1. "In blow to Trump, Supreme Court won't hear appeal of DACA ruling"
  - I. "One company that has been supporting our military and veterans for..."
  - II. "Inside the mind of the chief executive officer"
  - III. "70% of the world's population will live here by 2050"

2. "BREAKING: 'Number of fatalities' after shooting at Florida high school"
  - I. "Is this the perfect home security?"
  - II. "Phone companies can't stop you doing this with your landline"
  - III. "Teva to cut around half of Israeli workforce, outsource operations"
3. "Trump defends arming teachers to stop a 'sicko shooter'"
  - I. "Australia seeks to abolish modern slavery"
  - II. "You have never seen home security like this"
  - III. "Slain teacher told fiancé what to say if he died in a shooting"

**Appendix D**

## Coding Manual

Breaking News and Sponsored Content

Coding Manual for Data Collection & Analysis

Designed by Len Haynes

February 7, 2018

**UNIT OF ANALYSIS**

Sampling Units: Five mobile news software applications:

- ABC News
- CBS News
- CNN
- FOX News
- NBC News

Coding Units:

1. Breaking news headline with accompanying image/graphic.
2. Native advertisement with accompanying image/graphic.

**MAIN RESEARCHER DATA GATHERING AND TRANSFER INSTRUCTIONS:**

1. Launch one of five mobile news applications on the Samsung Galaxy Tab or Apple iPhone provided.
2. Locate a “breaking news” story on the news app. Click on that story.
3. If no “breaking news” story is indicated, choose the first story located at the top of a news app page.
4. Capture a screen shot of the breaking news headline as well as the accompanying image or graphic relating to the story. Follow chosen device’s procedure for capturing a screen shot.
5. Scroll to the bottom page of the breaking news story and randomly select up to three native advertisements, but no more than three. Capture a screen shot of each native advertisement headline and accompanying image or graphic if provided.
6. If needed, crop each native ad screenshot so that only one ad is shown per file.
7. Rename the title of each and every news and native ad screenshot appropriately as follows:
  - Abbreviate the breaking news headline followed by appropriate mobile news app used and story number (ex. Dow Drops-NBC-Story #1).
  - For each native ad, use the same news headline followed by mobile app used and native ad number (ex. Dow Drops-NBC-Native Ad #1)

8. Transfer each news story and native ad screenshot into the appropriate shared Google Drive folder name, (ex. A breaking news story screen shot captured on CBS News app will be placed in the folder named: CBS).
9. Repeat this process for all five mobile news apps each day that data is gathered.
10. Notify all coders that the data assets are available for coding.
11. Once the three coders have coded all news stories and corresponding native ads, transfer all coders' data to Excel or Google Sheets for analysis.
12. Using Excel or Google Sheets software, generate charts to represent combined coders' data.
13. Choose the four most relevant or similar native ads to their corresponding news story.
14. Transfer the four relevant native ads and their corresponding breaking news stories into Atlas.ti software for semiotic analysis coding.
15. Place the three native ads into the Morris Semiotic Model (1964) table for final analysis by the main researcher.

**Coder Instructions:**

1. To analyze and code each news story headline and their corresponding native advertisements, open the folder named "Haynes Content Analysis Raw Data" located on Google Drive via this link:  
<https://drive.google.com/open?id=1amKh0Dzqcb--uD1i2yr7iMYeRrVuJ6mK>

2. First, locate and open a blank Coder Sheet Excel file located in the main Google folder. Convert Excel file using Google Sheets before entering data. Alternatively, if coder has access to Excel directly, enter data on Excel file. Please code all data on the Excel or Google Sheet using the code key provided in this coding manual.
3. Open the “News Stories & Native Ads” folder. Choose any mobile news app to begin coding. The news story should be analyzed and coded first before its corresponding native ads are coded. Coders can choose any order to work on a particular mobile news app folder.
4. To assign a code or multiple codes to a news story, first read the headline and view its corresponding headline picture, then determine what the topic or multiple topics the news headline evokes. Use the key codes provided to assign one or more codes to the news story and note them on the Excel/Google sheet in the appropriate columns.
5. After the news story is coded, proceed to each native ad folder. To assign a code or multiple codes to each native ad, first read the headline and view its corresponding headline image/graphic, (if present), then determine what the topic or multiple topics that the native ad headline and image/graphic evokes. Use the key codes provided to assign one or more codes to each native ad and note them on the Excel/Google sheet in the appropriate columns. Continue adding codes for the other categories: design elements, native ad purpose, etc...

6. When a news story and its related native ads are coded, rename the Excel/Google file according to its abbreviated headline and mobile news app name (ex. Dow Drops-CBS Story #1). Place the finished excel coding sheet into coder's appropriate coder name folder.
7. Open a new blank Coder Sheet Excel/Google file, and code the next news story and corresponding native ads. Continue this procedure until all news stories and native ads are coded.
8. Once all the news stories and native ads are coded on the Excel/Google coding sheets and placed in coder's folder, notify the main researcher that the data has been analyzed and coding is complete. The main researcher will then create new Excel/Google spreadsheets using coders' results for further analysis and comparison.

**CODING KEY****Descriptive Topic Codes for Breaking News Stories:**

**PO-** Politics

**CR-** Crime

**WE-** Weather/Environmental

**IN-** International

**SP-** Sports

**FI-** Financial/Economy

**HE-** Healthcare/Medical

**SI-** Social Issue

**EN-** Entertainment

**ST-** Science & Technology

**DI-** Disaster (natural or man-made)

**OT-** Other (describe)

**News Story Design Elements:**

**TEX-** Text present

**IMG-** Image/Graphic present

**Descriptive Topic Codes for Native Ad Content:**

**PO-** Politics

**CR-** Crime

**WE-** Weather/Environmental

**IN-** International

**SP-** Sports

**FI-** Financial/Economy

**HE-** Healthcare/Medical

**SI-** Social Issue

**EN-** Entertainment

**ST-** Science & Technology

**DI-** Disaster (natural or man-made)

**OT-** Other (describe)

**Native AD Design Elements:**

**TEX-** Text present

**IMG-** Image/Graphic present

**Native Ad Relevancy:**

Please rate the relevancy of each native ad to its corresponding news headline using the guide below:

**YES** = one or more matching descriptive topic codes

**NO** = no matching descriptive topic codes

**Coding Sheet Example**

Supreme Court DACA- ABC-Story #1.xlsx

New Open Save Print Import Copy Paste Format Undo Redo AutoSum Sort A-Z Sort Z-A Gallery Toolbox Zoom Help

	A	B	C	D	E	F	G	H	I
1	CODER NAME:	Len Haynes							
2	CODING DATE:	2/27/18							
3									
4	NEWS APP:	ABC	CBS	CNN	FOX	NBC			
5									
6	NEWS STORY #	1							
7	Headline	Supreme court declines Trump							
8	Topic Code(s):								
9	PO	PO							
10	CR								
11	WE								
12	IN								
13	SP								
14	FI								
15	HE								
16	SI	SI							
17	EN								
18	ST								
19	DI								
20	OT (describe)	OT: Legal Issue							
21	Design Elements:								
22	TEX	TEX							
23	IMG								
24									
25	NATIVE AD # 1								
26	Headline	These cars will last							
27	Topic Code(s):								
28	PO								
29	CR								
30	WE								
31	IN								
32	SP								
33	FI	FI							
34	HE								
35	SI								
36	EN								
37	ST	ST							
38	DI								
39	OT (describe)								
40	Design Elements:								
41	TEX	TEX							
42	IMG								
43	Native Ad Relevancy:								
44	YES = 1 or more								
45	NO = 0 matches	NO							

**GLOSSARY OF TERMS USED:**

1. **Mobile news application:** a computer program designed to run on a mobile device such as a phone/tablet or watch that delivers news content to users.
2. **Native advertisement:** native ads look and feel like the content that surrounds them. They are described as native because the advertising looks and behaves just like the editorial content around it. The ads sit within the editorial feed sections of websites and the ad works in the same way as existing editorial; for example, you normally will have to click on the content in order to interact with it (Lovell, 2017).
3. **Breaking news story:** information that is being received and broadcast about an event that has just happened or just begun (Cambridge Dictionary, 2018).
4. **News headline:** the line on top of the story that tells the reader what the story is about. The headline usually identifies the main idea of the story so the reader can decide whether to access the full story (Rich, 2013)
5. **Image:** a physical likeness or representation of a person, animal, or thing, photographed, painted, sculptured, or otherwise made visible.
6. **Code:** a researcher-generated word or short phrase that symbolically assigns a summative and essence-capturing attribute for a portion of language-based or visual data (Saldana, 2016).
7. **Screenshot:** A screenshot (or screen grab) is a digital image of what should be visible on a monitor, television, or other visual output device.