

ARTICLE



## Designing Trust: Design Style, Political Ideology, and Trust in “Fake” News Websites

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### ABSTRACT

Assessments of the trustworthiness of news outlets necessarily implicate visual design. The design of the newspaper has been a hallmark of its credibility; a newspaper *looks* trustworthy. But the relationship between design and trust is more complicated in a digital era. Agents of mis- and dis-information produce “fake” news outlets that look trustworthy, appropriating the design qualities of credible news outlets. This article brings together literature on trust in journalism, political esthetics, and pragmatist semiotics to analyze how fake news outlets seek to achieve trust. We conduct a visual analysis of both mainstream and “fake” news websites, identifying how “fake” news websites employ specific design elements in patterned ways that simultaneously (1) establish themselves as legitimate claimants to the label of “news outlet” and (2) differentiate themselves as outlets that can be depended upon to provide a certain class of political information that falls outside the mainstream. We argue that the news website is best understood as a design genre, within which there can be variations in design style. Fake news outlets must conform to the genre expectations of news websites. Beyond this, fake news websites must also employ design elements in ways that convey political ideology through style.

### KEYWORDS

Design; trust; digital journalism; graphic design; design theory; credibility

### Introduction

Since the 2016 US presidential election, scholars and journalists alike have panicked over the role that online misinformation—and in particular, so-called “fake news”—plays both (1) in diminishing public trust in important social and political institutions and (2) in causing various antisocial behaviors affecting politics and public health. For journalists, one of the most alarming effects of fake news is its broader impact on public trust in “real news.”<sup>1</sup> Specifically, as Ognyanova et al. (2020) found, individuals exposed to fake news outlet experienced decreased trust in mainstream news media institutions. Central to these concerns are the visual elements of journalism that factor into audience assessments of the believability. Most scholarly definitions of fake news

foreground visual believability, characterizing “fake” information as that which “has the format of news content but not the editorial standards and practices of legitimate journalism” (Lazer et al. 2018). The distrust caused by fake news therefore holds consequences for journalism as an institution as “fake” content intentionally mimics traditional news media, causing skepticism to reverberate across the whole news media system. Moreover, it is worrisome to think that sufficiently designed fake news could engender audience trust, causing consumers to believe, and act upon, misinformation.

To understand how misinformation shared by so-called “fake news” sites impacts trust in news media it is vital to explore the role and impact of visual design. The design of the newspaper has been a traditional hallmark of its credibility; a newspaper *looks* trustworthy (Barnhurst 1994; Barnhurst and Nerone 2001). However, the relationship between design and trust is more complicated in a digital era as the boundaries of “legitimate” journalism have expanded through technological innovation and a proliferation of both mainstream and alternative news producers (Robertson and Mourão 2020). A lowering of the barriers to entry for journalism has allowed fake news sites to cheaply and easily appropriate the design qualities of credible news outlets to advance their own information agendas (Tandoc, Lim, and Ling 2018). Furthermore, changes in news consumption habits, from an increase in mobile-accessible news formats to social media becoming a dominant route to accessing news, have added novel heuristics of news credibility, such as user experience (UX) design and advertising placement (American Press Institute 2016).

Audiences thus rely on visual credibility markers as heuristics for whether news outlets are trustworthy. The most accessible and most immediately processed of these is the “look” of the website, which viewers quickly categorize as “real” looking or “fake” looking (Robins and Holmes 2008). Although a nascent literature in political communication has identified design as an important marker of credibility in this way (Billard 2016, 2018; Haenschen and Tamul 2020), there remains a dearth of research on exactly how design confers credibility and, in doing so, bolsters trust. To build toward a greater understanding of the role and consequences of design in news media trust, this article brings together research in pragmatist semiotics, political esthetics, and journalism studies. This synthesis offers productive insight into the complexities of trust-building within a contested media environment in which fake news intentionally looks and feels, at least on a surface level, like their more credible counterparts.

We begin with a literature review highlighting extant research around design and trust in online news, introducing literature from political esthetics and graphic design theory as an entry point to understanding how the design of digital news sites acts as a route to trust-building for audiences. We then undertake a comparative visual analysis of both mainstream (“real”) news websites and so-called “fake” news sites using Skaggs’s (2017) semiotic theory of graphic design to identify and compare the elements, motifs, styles, and genres employed by each site. This analysis provides a nuanced view of how visual design confers credibility. We argue that the news website is best understood as a design genre, within which there can be variations in design style (achieved by the arrangement of individual design elements into recognizable political motifs). We conclude our article by discussing the implications of our findings for the growing literature on the relationship between design and politics

and the significance of bridging semiotic analysis and sociotechnical understandings of meaning making.

### ***Design and Trust in Online News***

Before properly reading journalistic content, audiences build perceptions of an outlet and its quality because of the visual design of the news object they are encountering. Consequently, visual design is also a central force in the successful spreading of fake news as, if done correctly, it results in false information being read as if it were “real” journalism. Definitions of fake news foreground visual and stylistic characteristics as defining features. Interdisciplinary definitions of fake news have coalesced around a shared definition that highlights both the low facticity of the content and its visual mimicry of professional journalism. For instance, Tandoc, Lim, and Ling (2018, 147) define fake news as false content that “appropriates the look and feel of real news.” Mourão and Robertson (2019, 4) present a similar definition of fake news as “something that mimics the real but it is not,” and instead incorporates elements exogenous to traditional journalism such as sensationalism, misinformation, and bias. Although much research has been undertaken that addresses the truthfulness of the content of fake news, and the intentionality behind deception, little research directly addresses the impact of the visual mimicry of fake news and, importantly, pinpoints the design elements that either make or undermine false content’s ability to impersonate legitimate news media.

Industry advice compiled by the American Press Institute (2016) highlights the novel considerations of visual design that are brought about by digitization, notably the impact of ad placement (in addition to the type, design, and number of the advertisements themselves), the adaptability of web design to mobile phone screens (i.e., how good the website looks on, or how it changes to adapt to, smaller screen sizes), and the amount of content included on a page and the visual impression this leaves. These design elements are shown to impact whether or not audiences choose to read and engage with journalistic content and inform assessments of credibility that establish relationships of trust between audiences and news outlets.

Flanagin and Metzger (2007) explore the role of such site features in credibility assessments of website users arguing that attractiveness or “dynamism” of a website is implicated in how it is perceived by users. The authors find that various visual dimensions of a website—including its layout, graphics, font, color, etc.—impact assessments of audience credibility; however, in disentangling such impacts it is necessary to consider the genre of the website, as different kinds of websites elicit different credibility assessments from users (Flanagin and Metzger 2007, 334). In their later work, Metzger and Flanagin (2013) highlight the complexity of credibility assessments in the digital age, and the use cognitive heuristics to overcome the information overload that complicates information processing and assessments of trustworthiness (Metzger and Flanagin 2013, 214). One such heuristic, expectancy violation, is useful in considering the role of visual esthetics. The authors argue that people often employ an expectancy-violation heuristic when evaluating information online “whereby if a website fails to meet their expectations in some way, they will immediately judge it as

not credible” (Metzger and Flanagin 2013, 216). Esthetic components, such as poor site design and overall visual appearance, can therefore be shortcuts to assessments of trustworthiness.

Similarly, Sundar’s (2008) MAIN model highlights the role of visual cues and heuristics in assessments of credibility. Sundar (2008, 78) argues that digital technology brings forth multiple visual cues including visual design and structure of a website and technological attributes (such as interactivity and autogenerated or algorithmically presented advertising content). Importantly, the MAIN model highlights how a given affordance “can convey a variety of different cues leading to a number of different heuristic-based judgments, with some being positive and others negative” (Sundar 2008, 79). As such, more work is needed to identify the “universe of cues” (Sundar 2008, 79) that an affordance triggers, i.e., a more nuanced understanding of visual design is necessary to understand how one individual may see a design element—such as the website logo, graphics, font choices, visual structure—as immediately indicative of its credibility, where another may see it as evidence that the website’s information should not be trusted.

Furthermore, academic research highlights how design elements may also impact audience assessments of bias. Experimental research by Spillane, Lawless, and Wade (2017, 233) found evidence that certain design elements impact audience perceptions of a news outlet’s bias. Notably the existence of interaction buttons (like, comment, share, etc.) were seen as evidence of lessened bias—the authors contend that the removal (or lack) of interaction buttons signified that websites are not reputable as they do not wish to invite interaction with audiences. Furthermore, the presence of embedded promotional content (usually advertisements or clickbait type links) resulted in increased audience assessments of bias. Subsequent research by Spillane, Lawless, and Wade (2018, 1) similarly found that distorting the visual quality of a news website by including “gaudy calls to action,” reducing the space dedicated to actual news and increasing the amount, size, and prominence of advertising, led to increased perceptions of bias amongst audiences.

In light of the proliferation, and increasing prominence, of fake news sites, meta-journalistic conversation has turned to consider how less-reputable sites also utilize trustworthy design elements to make fake news sites appear more credible. In particular, coverage of these fake news sites is concerned over how the appearance of fake news sites trick audiences into unknowingly consuming and recirculating misinformation. Murtha (2016) highlights how fake news sites even fool professional journalists themselves, particularly “imposter sites” that use URLs, outlet names, and logos similar to existing legitimate—often local (Mahone and Napoli 2020)—outlets. Although these crude imitations may be easily detected by discerning audiences, their effectiveness in fooling individuals is increased precisely because of how design elements filter from news outlets through social media. As social media sharing usually only highlights an outlet’s logo and name, the story headline, and a chosen image, fake news sites appear even more legitimate when filtered through the newsfeeds of social media sites. Furthermore, this effect also happens through search engines, another dominant way in which audiences encounter news. Clark (2014) reported on at least 20 fake news sites set up by the National Republican Congressional Committee that were

actually political attacks on Democratic congressional candidates. The sites were promoted through localized Google search ads that presented them as if they were legitimate news websites, placed in search results alongside actual news outlets. Not only is design an important part of audience assessments of credibility, and thus vital to news media trust, but it is also a tool for journalistic interlopers to present false information as stylistically indistinguishable from “real” journalism, a problem exacerbated by social media and search platforms.

### ***Design and Political Aesthetics***

A focus on digitization, while useful, has meant that knowledge of design and trust is mostly contained to technical elements of how digital news “feels,” with some cursory references to the visual look of news sites. There thus exists a productive opportunity for future research to attend to the specifics of visual design and trust and, further, its interplay with sociotechnical elements of journalism. There does exist a fledgling body of work on design within news media (see Lo, Paddon, and Wu 2000; de Vries 2008) that offers a productive framework for understanding of the role of design in cultivating news media trust and how this is complicated by fake news sites.

Work by Schindler and colleagues (Schindler and Müller 2018; Schindler, Krämer, and Müller 2017) on the interaction between newspaper presentation and political orientation highlights the utility of design thinking to journalism studies. The researchers highlight systematic differences between the page layouts of right-wing and left-wing news publications in Germany, finding that right-wing newspapers tend toward more traditional design elements. Such findings hold more than visual consequences, as they raise questions over “the degree to which recipients consciously identify the observable visual language of political orientation” (Schindler and Müller 2018, 156). Put another way, certain design elements cue to audiences that the information being communicated will have a certain ideological leaning. Such phenomena have similarly been explored through nascent research within political communication that examines the role of design in political campaign communications (see Billard 2016, 2018). This is further complicated by the partisan asymmetry of misinformation, wherein the majority of “fake news” sites and online misinformation are conservative or far-right in content (Freelon, Marwick, and Kreiss 2020). Given the range of triggers cued by visual heuristics (Sundar 2008), nascent empirical evidence that partisanship can imbue visual preferences, and the partisan nature of misinformation, it is therefore necessary to explore the visual differences between “fake news” sites across the ideological spectrum, in addition to the differences between “fake” and “real” sites.

Given the ideological motivations that often underpin fake news sites, it is pertinent to explore the extent to which this sense of ideological design similarly manifests in digital news, i.e. whether there exist systematic differences in visual design across the news media ecology that coalesce around shared identities, such as partisan leaning. This is further complicated by a need to fit within the boundaries of normalized digital news presentation. Fake news sites must simultaneously present themselves as legitimate journalistic outlets—as noticeably similar to their traditional “real” counterparts—while also cueing legibility to a partisan in-group. The visual design of fake

news sites thus exhibits plasticity, being read differently by disparate audiences. To make sense of how visual design is employed to build trust in journalistic interlopers it is necessary to explore the precise design elements and stylistic motifs that are used by fake news sites and the extent to which they mimic or deviate from their traditional counterparts.

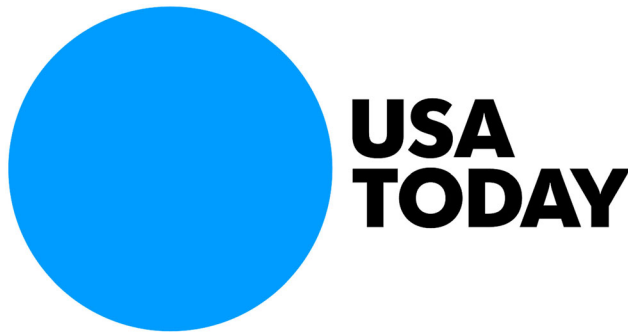
### ***The Analysis of Graphic Design Displays***

Within communication studies, the dominant approach to analyzing visual design is that of Kress and van Leeuwen (1996), who took a linguistic approach to the analysis of visual meaning rooted in the social semiotics of Barthes. While their approach is generally applicable to a variety of visual images, it lacks the nuance required to analyze what is specific to graphic design as a mode of communication. Skaggs (2017) offers a useful alternative approach in his theory for graphic design rooted in the pragmatist semiotics of Peirce. Thus, it is Skaggs' approach to the analysis of visual design that we take up for our research.

Skaggs' (2017) theory centers on the analysis of graphic design displays, which are unitary arrangements of communicative features that together comprise a whole "thing" that is perceived as an intentional act of communication. For example, the front page of a newspaper is a graphic display—an arrangement of several different communicative features (the nameplate, headlines, photographs, captions, etc.) that combine to form a "thing" that is perceived as a unit by the reader. Other examples of graphic displays include magazine covers, billboard advertisements, a slide in a PowerPoint presentation, and the Facebook News Feed.

The individual features that combine to form displays are referred to as graphic elements. Each element is a discrete "object" within the display that performs a singular function. For example, the nameplate of a print newspaper is an element, in that it is a discrete object (though it has several different qualities, such as typeface, size, color, etc.) that performs the singular function of identifying what newspaper it is. Other examples of graphic elements include logos, icons (such as the "print" icon in a word processor or on a web page), and text elements (like paragraphs). Importantly, elements can be simple or compound; that is, elements can exist as indivisible graphic objects or they can exist as graphic objects that can be divided into smaller constituent elements. Consider, for example, the logo of *USA Today* (see [Figure 1](#)). The logo consists of a light blue circle icon and a black sans serif wordmark. Together, the icon and the wordmark form a compound element: the *USA Today* logo. At the same time, the icon and the wordmark can be considered distinct simple elements, and each can (and often does) appear without the other.

The patterned or systematic repetition of a graphic element (whether simple or compound) within a display constitutes a motif. For example, a motif may entail a particular arrangement of colors or shapes, or a symbol that recurs across contexts. Such repetition of an element "inherently involves positional and structural relationships" (Skaggs 2017, 211), which thus requires motifs be analyzed collectively at the level of the display. Consider, for example, the Frank Ariss design for the front page of the *Minneapolis Tribune* in 1971 (reproduced in Barnhurst and Nerone 2001, 210). The



**Figure 1.** *USA Today* logo

simple element of the *Tribune's* icon (designed to represent “a sheet of newsprint rolling off the press”; Duchschere 2014) appeared at the top of the page to the right of the *Tribune* wordmark as part of the compound element of the logo. The simple element of the icon repeated elsewhere on the front page, however. Specifically, it repeated (at various sizes) to the left of the front page’s section headers, indicating where new sections (e.g., analysis, features, and almanac) began. This patterned and systematic repetition made the element of the icon into a motif. In other instances, motifs occur not within a single display but across multiple displays. For example, the use of pyramids in diagrams to indicate hierarchical relationships and the use of a raised fist symbol to indicate radical political resistance constitute motifs.

In the same manner that the patterned recurrence of elements within and/or across displays forms motifs, the patterned recurrence of motifs across various displays forms style. Through repetition in different contexts, motifs come to bear an identifiable “family resemblance” (Skaggs 2017, 213) such that lay viewers recognize those motifs as having “sameness.” That is, viewers recognize that some series of displays containing a set of motifs are “like” some other series of displays containing the same motifs. In Skaggs (2017, 213) words:

Style is never the cold awareness of formal likeness alone. It is imbued, through the interpreter’s experience, with the emblematic designations of a culture.

A style’s iconicity across displays must not only resemble others so that they (a plural grouping) may be perceived as an integrated (unitary) whole; it must also remain distinct from other patterns of iconicities—those of which it is not a member.

For example, the social curation platform Pinterest has developed an identifiable style that is immediately recognizable to lay audiences—a style that is marked by a series of shared motifs across users and creative contexts, including artificially distressed wood, calligraphic typography, mass-produced white faux ceramic, Edison bulbs, and so on. The style is sufficiently iconic that one can identify a “Pinterest wedding” as distinct from some other kind of wedding or a “Pinterest home” as distinct from (say) an “HGTV home.” And this identification is made by recognizing not only the likeness of shared motifs, but also the cultural meanings assigned to that likeness.

Finally, when a style recurs across time and context, but in a patterned way (often through being used for a particular type of message or category of communication) it

becomes constitutive of genre. As Skaggs (2017, 213) writes, “Genre is a systematization of style in such a way that a particular subject matter is associated with a particular style as a class of form.” Skaggs illustrates this point with the example of film noir as a genre. While stylistic elements such as voice-over narration, poorly lit nighttime streets, neon signs, and the figure of the femme fatale identify a detective film as belonging to the film noir genre, these stylistic indicators also indicate to an audience what kinds of story to expect. Moreover, once established, a genre will tend to self-perpetuate within a culture, as creators deliberately employ genre conventions to indicate membership in a category of communication. In the context of print newspapers, certain stylistic features common across different papers serve as important genre conventions. The presence of a masthead at the top of the paper—comprised the nameplate, often a logo or icon, a motto, the date, the edition, the price, and so on—identifies as newspaper *as a newspaper*, but also indicates to readers what content to expect from the paper—namely, authoritative, impartial, and timely stories on events of public importance.

Applying Skaggs (2017) semiotic theory for graphic design to the context of trust in news media and the proliferation of “fake” news websites, we pose the following research questions:

1. What design qualities (elements, motifs, styles, and genres) do legacy press and digital-native news websites share with one another?
2. What design qualities do “real” and “fake” news websites share with one another?
3. How do the designs of “real” and “fake” news websites differ from one another?

## Method

### *Data and Sample*

To answer these research questions, we conducted a comparative visual analysis of both mainstream (“real”) news websites and so-called “fake” news websites. We sampled  $n = 20$  real news websites and  $n = 20$  fake news websites (total  $N = 40$ ) so as to have an equal amount of data from each category to compare. Of the 20 real news websites, we drew  $n = 10$  from legacy outlets—outlets that “originated as major print newspapers and, for the most part, distribute both in print and online” (Billard 2019, 165). Specifically, we selected the websites of the top 10 US newspapers as ranked by print circulation (see Turvill 2020): the *Wall Street Journal*, *USA Today*, the *New York Times*, the *Washington Post*, the *Los Angeles Times*, the *New York Post*, the *Tampa Bay Times*, the *Chicago Tribune*, *Newsday*, and the *Star Tribune*. We focused specifically on the websites of outlets that originated as newspapers, rather than broadcast news outlets, because of the specific visual history of publication design in newspapers that carries over into news websites (e.g., Barnhurst and Nerone 2001; Barnhurst 2012) and because broadcast news outlets follow fundamentally different visual norms. Moreover, in the online environment, newspaper websites dramatically outperform broadcast news websites in audience metrics (Pew Research Center 2019).

We drew the remaining 10 real news websites from digital-native outlets—news outlets that originated and currently distribute purely online. These websites were



identified in the Pew Research Center (2019) *State of the News Media* report's list of 37 digital-native news outlets. Of those 37 outlets, we removed all websites that provided only specialized news such as sport, entertainment, finance, technology, etc. (e.g. *Bleacher Report*, *Investopedia*, *Tech Radar*, *TMZ*, etc.). This left us with a final selection the top of  $n = 10$  digital-native news websites by readership: *Buzzfeed News*, *Bustle*, *Elite Daily*, *Huffpost*, *Insider*, *Politico*, *Slate*, *The Daily Beast*, *The Root*, and *Vox*.

The decision to split our real news websites sample into equally sized subsamples of legacy outlets and digital-native outlets was methodologically driven and justified by the extant literature. Print newspapers have an iconic design style that is immediately recognizable to readers as a hallmark of the medium. Because of this iconicity, and to evidence their historical lineage, legacy outlets tend to carry through the design style of the print newspaper into their websites (e.g., Nerone and Barnhurst 2001; Barnhurst 2012). Digital-native outlets, however, are less likely to replicate these iconic norms because they lack the relevant historical lineage, and they are more likely to embrace the unique affordances of their originating media in their designs (e.g., Stroud, Curry, and Peacock 2020). Given that fake news outlets are similarly native to the online environment, we may expect consistencies between digital-native real news websites and fake news websites that would be masked if our sample of real news only included legacy outlets.

To select our sample of  $n = 20$  fake news websites, we turned to Grinberg et al.'s (2019) audit of fake news sources shared on Twitter during the 2016 US elections, which identified 171 such websites and divided them into several color-coded tiers of "fakeness." The red tier represented the "most fake" websites—ones that "spread falsehoods that clearly reflected a flawed editorial process" (Grinberg et al. 2019, 374). This tier consisted of 64 outlets, of which 28 were still publishing in spring 2021. From those 28, we randomly sampled 20 for our study using a random number generator. We sampled randomly, rather than selecting the top 20 by readerships, as we did for digital-native outlets, because a lack of reliable data on unique site visits for these websites prevented us from ranking them by readership. These  $n = 20$  fake news websites were: *100percentfedup*, *Activist Post*, *Bare Naked Islam*, *Bipartisan Report*, *Collective Evolution*, *Conservative Firing Line*, *Conservative Post*, *End Time Headlines*, the *European Union Times*, the *Event Chronicle*, the *Free Patriot*, *Frontpage Mag*, the *Gateway Pundit*, *Infowars*, *Louder With Crowder*, *News Rescue*, *TruNews*, *We Are Change*, *WND*, and *WorldTruth.tv*. It is worth noting that the overwhelming majority of these fake news websites represent conservative or far-right perspectives, with one representing anarchist perspectives (*Activist Post*), and only two representing liberal or left-leaning perspectives (*Bipartisan Report* and *Collective Evolution*). While imbalanced in ideological distribution, this asymmetry is, in fact, reflective of more general left-right asymmetries in fake news sources, as most fake news outlets are conservative in their political alignments (see, e.g., Freelon, Marwick, and Kreiss 2020).

To convert these news websites into analyzable data, we captured three displays from each website on the same day (5 April 2021) via screenshot. Those three displays were (1) the website homepage, (2) an individual news article web page, and (3) the about page. This process yielded  $n = 60$  displays per category of news website (real versus fake), for a total of  $N = 120$  displays to be analyzed.

## **Analysis Procedure**

Drawing on Skaggs (2017) semiotic theory for graphic design, our analysis entailed the identification of elements, motifs, styles, and genres within news website displays. Specifically, we manually annotated each display, first identifying individual elements and then tracing the repetition of and relationships between elements both within and across displays. Each display was analyzed at four levels: first, individually as an isolated display; second, collectively with the other two displays captured from the same news website; third, collectively with the displays captured from all the other news websites of its category (real vs. fake); and, finally, collectively with the displays captured from all the news websites in the corpus of data. In this comparative manner—akin to grounded theory (Corbin and Strauss 2008)—we identified motifs through the repetition of elements, styles through the repetition of motifs, and genres through the repetition of styles. Given our specific research questions, we honed our analytic lenses on the consistencies in motifs, styles, and genres among displays of the same category and on the discordances in motifs, styles, and genres between different categories.

## **Analysis**

Analysis of our data revealed that “fake” news websites employed specific design elements in patterned ways that simultaneously (1) established themselves as legitimate claimants to the label of “news outlet” and (2) differentiated themselves as outlets that could be depended upon to provide a certain class of political information that fell outside the mainstream. Specifically, fake news websites and real news websites both employed a shared set of stylistic conventions indicative of “news website” as a genre (or perhaps, more specifically, “print news website,” though we will use “news website” as a shorthand throughout). Beneath the level of genre, however, real and fake news websites (and subcategories within those categories, like digital-native news websites) employed different motifs indicative of particular styles. Among fake news websites, these styles conveyed particular political ideologies, while among real news websites, these styles conveyed particular relationships to the editorial legacy of the print newspaper. In both cases, the websites’ design styles convey to audiences whether or not they are trustworthy. For fake news websites, audiences who share the ideological biases of the fake news outlet may find trustworthiness in the style of the website design, while those who do not share those biases may perceive untrustworthiness. Similarly, for real news websites, audiences who value the legitimacy associated with the professional print newspaper and its editorial orientation may find trustworthiness in the style of those websites that carry forward its characteristic motifs, while those who disvalue that legitimacy may perceive untrustworthiness.

To efficiently illustrate these findings, we first present our genre-level analysis. In that section, we identify the stylistic conventions indicative of “news website” as a genre and demonstrate the various ways the news websites in our sample employed those conventions in ways that established the legitimacy of their claims to being “news outlets.” We then move to our style-level analysis. In that second section, we unpack the considerable number of stylistic variations that differentiate the kinds of

news one can expect from each website and analyze the political motifs evident in (primarily) fake news websites to indicate the ideological biases of the websites.

### **The News Website as Genre**

Scholars and media critics alike have made much of the idea that fake news websites “trick” or otherwise fool audiences into believing they are “real” news websites by appropriating the design features of respected outlets (e.g., American Press Institute 2016; Clark 2014; Mahone and Napoli 2020; Murtha 2016; Silverman 2015; Wardle 2016). Our analysis finds some limited support for this argument at the level of genre to the extent that the design of fake news websites met the expected genre conventions of typical news outlets.

On the homepages of the outlets in our sample, the stylistic features that indicated “news website” as genre included (1) the presence of a masthead at the top of the web page, (2) a navigation bar at the top of the web page (often next to or immediately beneath the masthead) dividing the outlet into news “sections”; (3) a “splash,” or lead story given visual prominence as the most important story of the day within a hierarchical grid layout; (4) sidebars featuring lists of “latest news” stories; and (5) advertisements given prominent placements (often either between sections or as a sidebar); among others. Compare, for example, the homepages of real news outlet *Politico* (Figure 2) and fake news outlet *Conservative Post* (Figure 3). Both websites featured a masthead at the top of the web page, as well as a navigation bar to different “sections” of the website. In the case of *Politico*, the masthead featured more prominently in the center and at a larger size, whereas *Conservative Post* masthead was less prominent as a smaller logo set to the left (though this was a common design choice among real news outlets, such as *Vox* and *USA Today*, as well). In addition, *Politico* hid their navigation bar within a “hamburger button,” or an icon of three horizontal lines that reveal the navigation bar when clicked (a design choice less common among fake

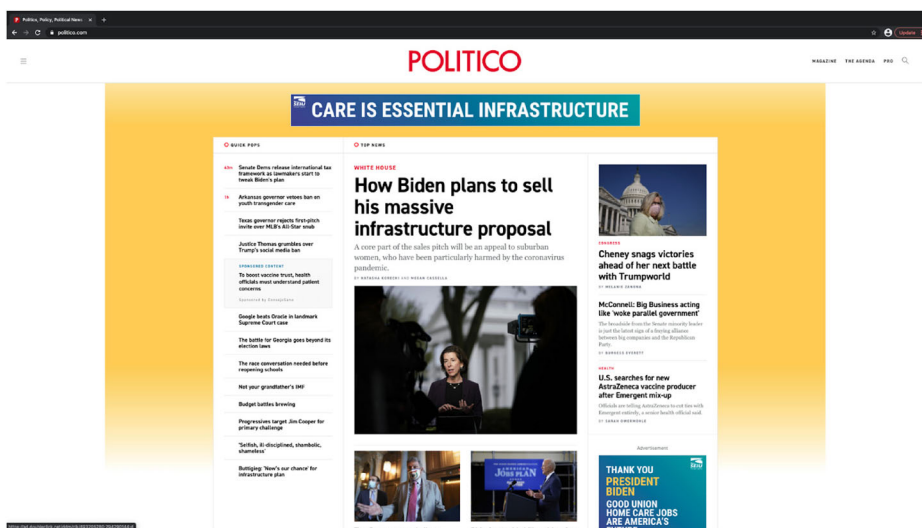


Figure 2. *Politico* homepage (5 April 2021)

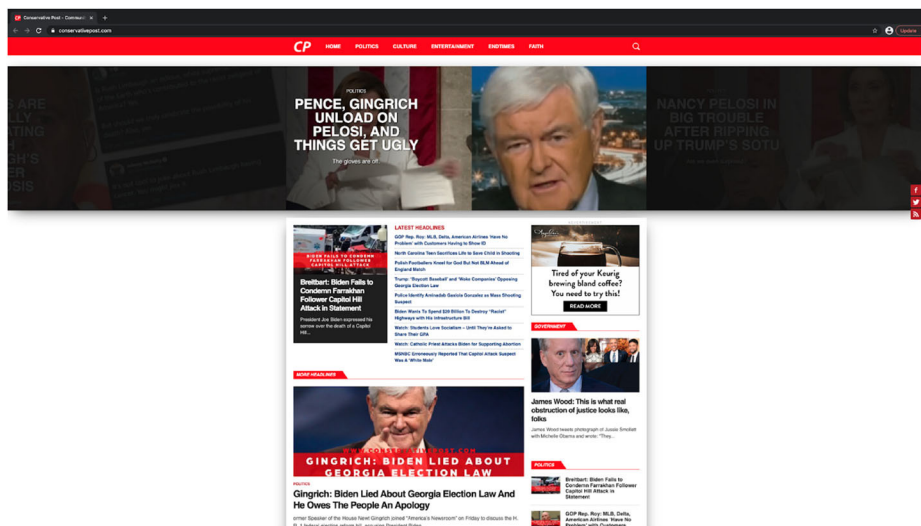


Figure 3. *Conservative Post* homepage (5 April 2021)

news outlets than real ones), whereas *Conservative Post* had a more traditional navigation bar to the right of the masthead featuring common news sections like “politics,” “culture,” and “entertainment.” Both websites also featured a prominent “splash” story on their homepages, indicated by the largest photos on the respective pages, as well as the largest headline text. These homepages were laid out in a hierarchical grid, meaning they used columns, rows, and modules to organize general content, but they also overlaid more important content over those columns, rows, and modules so as to create a hierarchy of significance among their content (as is typical in print newspapers). This is in contrast to a modular grid system, which relies on intersecting columns and rows to create modules into which content is organized; this is the dominant organizational system for websites (think, for example, of e-commerce websites and YouTube, but also social media platforms and blogs), thus making hierarchical organization somewhat distinct among news websites (see Lynch and Horton 2016). Both also featured sidebars with further stories and prominent advertisements (Keurig coffee for *Conservative Post* and labor union SEIU for *Politico*).

Of course, some news websites differed from the others in our sample a greater amount. One such case was real news website *Bustle*, which presented few of the stylistic features associated with the genre of “news outlet.” Rather, it presented several stylistic features associated with the genre of “women’s magazine.” As seen in Figure 4, rather than a mimic the design of the newspaper’s traditional masthead, *Bustle*’s website mimicked the design of a magazine cover, with a heavily edited, illustrative splash photo related to the “cover story” about Vice President Kamala Harris. This splash photo was overlapped by the colorful nameplate in a manner akin to the overlay of a magazine’s name on a cover photo, and the date was displayed in small print vertically next to the nameplate as if to indicate the “issue.” Another such case was fake news website *TruNews*, which presented several stylistic features associated with the genre of “broadcast news outlet.” Beneath the masthead at the top of the homepage, *TruNews* presented a video feed with the headline text set at the bottom left of

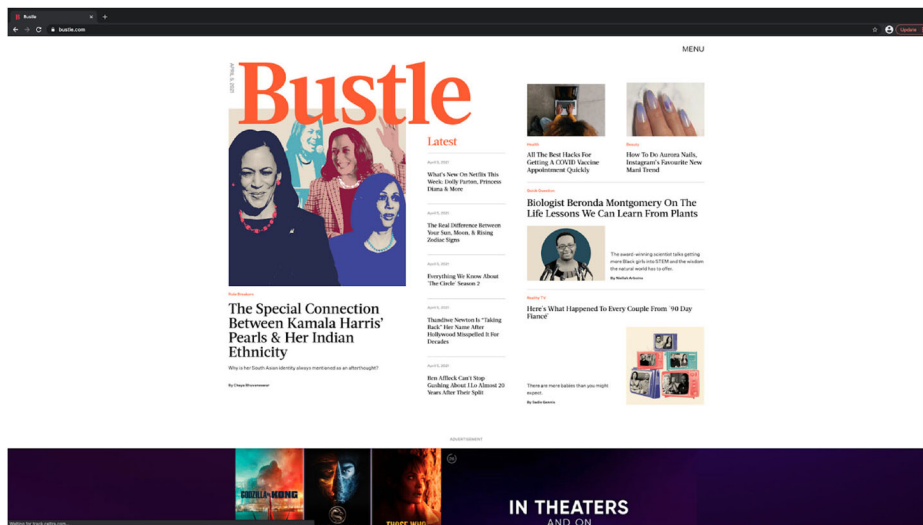


Figure 4. Bustle homepage (5 April 2021)

the video still, like a chyron (see Figure 5). To the left-hand side was a column of navigation controls to change between media. In form and function, the web page was little different than those of ABC, NBC, or Fox News’s live video pages. In both cases, these websites deviated from the genre conventions of the news website as descended from the print newspaper—which the other websites in the sample followed—but they nonetheless followed the genre conventions of other legitimate media outlet types (women’s magazines and broadcast news, respectively).

Genre conventions were also fulfilled on individual news article webpages, in addition to on website homepages. These genre conventions included (1) the continued presence of the masthead and navigation bar at the top of the page; (2) a large-print headline toward the top of the page, often with a small-print tag identify the “section” of the website the article was from above it; (3) a byline featuring the name of the author and the time and date at which the article was published (often printed in gray text, rather than black, to recess the information on the page); (4) a set of social media icons (often beneath or next to the byline, or else to the side of the article’s main text) for readers to “share” the article; (5) a photo either immediately above the headline or below the headline but before the main text of the article; (6) a series of book-print text paragraphs separated by double line breaks rather than by single line breaks followed by indentation; and (7) sidebars featuring lists of “latest news” stories and/or advertisements. In contrast to homepages, which relied on a hierarchical grid system, these article webpages employed an asymmetric two-column grid, in which the wider column contained the article text and the narrower column contained advertisements and links to other news stories. Compare, for instance, articles featured on real news website *The Root* (Figure 6) and fake news website *Collective Evolution* (Figure 7). Both article pages featured the website’s masthead and navigation bar, followed by headlines set in text several times larger than the text of the article’s body. These headlines were preceded by article section tags—“news” and “alternative news,” respectively—and followed by gray-text bylines featuring circular headshot photos of

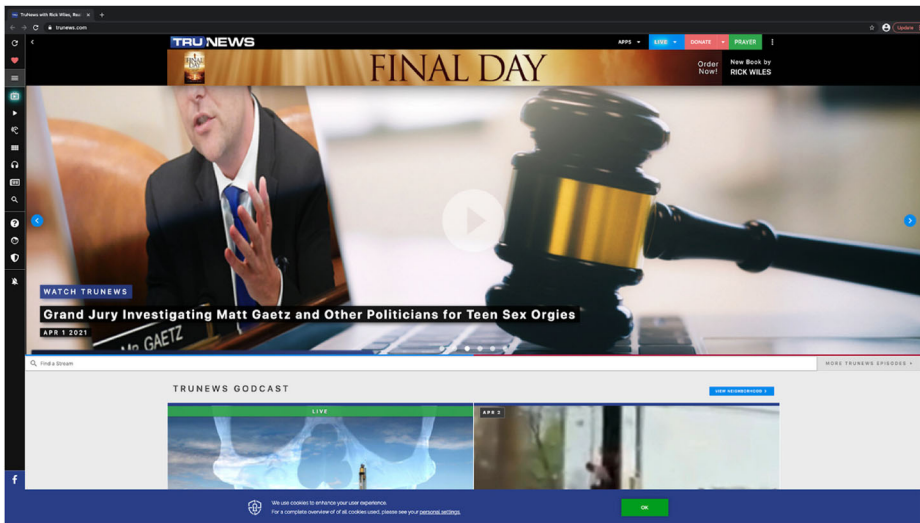


Figure 5. *TruNews* homepage (5 April 2021)

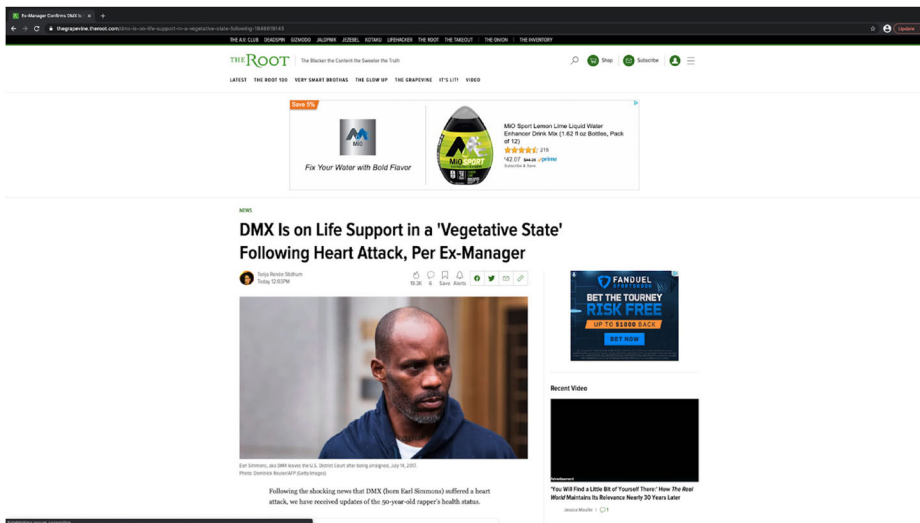


Figure 6. Article from *The Root* (5 April 2021)

their respective authors. Whereas *The Root* article featured a horizontal bar of social media icons beside the byline, the *Collective Evolution* article featured a vertical bar of social media icons beside the main text. Beneath both bylines was an article-width photo (captioned and credited on *The Root*, but uncaptioned and uncredited on *Collective Evolution*), followed by the articles' main text. Finally, both article webpages featured sidebars containing an advertisement followed by additional content from the outlet.

As evidenced by these examples, across our sample fake news websites and real news websites employed the same set of stylistic conventions indicative of "news website" as a genre. In doing so, each website established itself as a legitimate

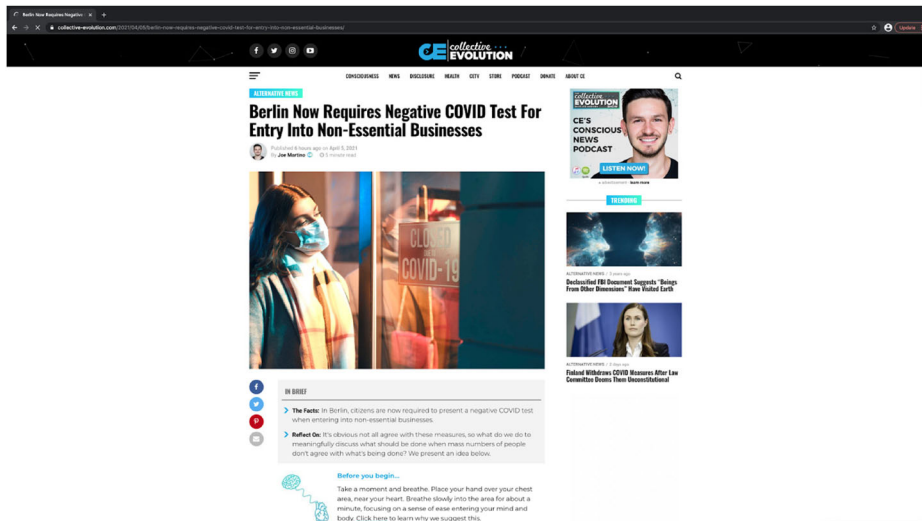


Figure 7. Article from *Collective Evolution* (5 April 2021)

claimant to the label of “news outlet” because they looked like news outlets at a surface glance. Were we to end our analysis here, our analysis would support the arguments made in past scholarship and media criticism, because we found that fake news websites succeed in “looking like” real news websites. However, the design similarities between real and fake news websites end at the level of genre. Once the design style of each website is considered, substantial differences in the designs of real and fake news websites that have profound consequences for audience trust become evident.

### ***Style as Political Indicators in Real and Fake News Websites***

Beneath the genre-level similarities analyzed earlier, we noted considerable stylistic variation among the websites in our sample. These various styles differentiated what kinds of news one could expect from each website and indicated the editorial allegiances of each outlet. In doing so, each website provided subjective indicators of trustworthiness to audiences of different social and political orientations. Though the individual elements employed differed across websites and, indeed, across displays, styles were indicated in the design features of logos, the use of color, typographic design, the arrangement of photos and graphics, overall layout design, and the presence of (sometimes obvious, sometimes subtle) political motifs.

The use of design style to indicate variation beneath the level of genre can be seen, somewhat apolitically, in the way the digital-native news outlets in our sample distinguished themselves from legacy press websites. Whereas the design style of legacy press websites indexed the print newspaper in ways that made clear their lineage and reinforced the editorial value system associated with the print paper, digital-native websites followed contemporary design trends in ways that marked them apart from the legacy press and emphasized their relationship to the broader, non-news digital media environment. This was particularly evident in the layout of websites. The layouts

The screenshot shows the New York Times homepage. The masthead includes the newspaper's name and navigation links. The main content area is organized into several columns. Key headlines include:
 

- Who Calls for Global Minimum Corporate Tax Rate?** - Treasury Secretary Janet Yellen made her case in an often-quoted speech to investors and pension companies from a virtual podium.
- Police Chief Who Fined Officers After George Floyd's Death Testifies** - He says he saw the officers who were involved in the fatal shooting of the Black man who died in police custody.
- White Evangelical Resistance Is Obstacle in Vaccination Effort** - Millions of white evangelists in the U.S. are resisting the push to get more people vaccinated.
- NYC's Open Schools Have Been Closing a Lot. That's About to Change** - Mayor Bill de Blasio is asking the city's school districts to consider closing schools temporarily after the year.
- With No Address and No ID, How Do You Get a Stimulus Check?** - Keep people living in business districts and on the street from being denied stimulus checks, approved by administrators and lawmakers.

 Other visible headlines include 'Domestic Prisoners Face a Rise in Rates on Multinational Corporations', 'The Morning of Rage, April 18', 'A Letter to the Body', 'Opposes Letter to The Eric Garner Boy', 'Domestic Prisoners Face a Rise in Rates on Multinational Corporations', 'The Morning of Rage, April 18', 'A Letter to the Body', 'Opposes Letter to The Eric Garner Boy', 'Domestic Prisoners Face a Rise in Rates on Multinational Corporations', 'The Morning of Rage, April 18', 'A Letter to the Body', 'Opposes Letter to The Eric Garner Boy'.

Figure 8. New York Times homepage (5 April 2021)

The screenshot shows the Tampa Bay Times homepage. The masthead includes the newspaper's name and navigation links. The main content area is organized into several columns. Key headlines include:
 

- Live updates: Vaccine demand rises around Tampa Bay on first day of open eligibility** - Floridians 16 and over can now get the Pfizer BioNTech, Moderna or Johnson & Johnson vaccines, while 16 and 17-year-olds will be able to get the Pfizer BioNTech shot.
- Possible new breach identified at Pine Point as wastewater leak continues** - Wastewater treatment plant officials said a possible new breach at the Pine Point wastewater treatment plant could be a problem for the city.
- Clearwater Council mulls the closure of downtown waterfront park** - An advisory committee will help guide the city's hiring of a management company to operate the \$200-million waterfront park.
- One killed in early morning Zephyrhills fire, officials say** - Firefighters contained the fire within 20 minutes of starting at the Olive Drive scene, according to Pasco County the Rescue. But the fatal fire started inside the double-wide mobile home.

 At the bottom of the page, there is a table with COVID-19 statistics:
 

	Cases	Deaths	Cases	Deaths
U.S. total	18,727,842	555,226	Florida total	2,085,190
Yesterday's total	84,182	122	Since Tuesday	6,462

 Below the table, it says: 'Florida data by location: School cases from 10 to 4 vaccine. Vaccines USA from Florida as vaccination. A/B/C/D/E to the state. Send a tip'.

Figure 9. Tampa Bay Times homepage (5 April 2021)

of legacy press homepages were clearly designed to invoke the print paper, including large, centered nameplates at the top of the web page, followed by a set of “front page” stories centered to the page and arranged in a moderate number of clearly demarcated, horizontally laid out columns (see, as examples, Figures 8–10). These front-page stories were presented as bolded, hyperlinked headlines followed by “standfirsts” (brief one- to two-sentence summaries of the full article) set in a smaller body text that mimicked the common practice of dividing front page news stories in the print newspaper so that the story continued on an interior page. These homepages also included photographs in various sizes appearing in different places on the page to accompany relevant articles, as they would on a print newspaper’s front page.



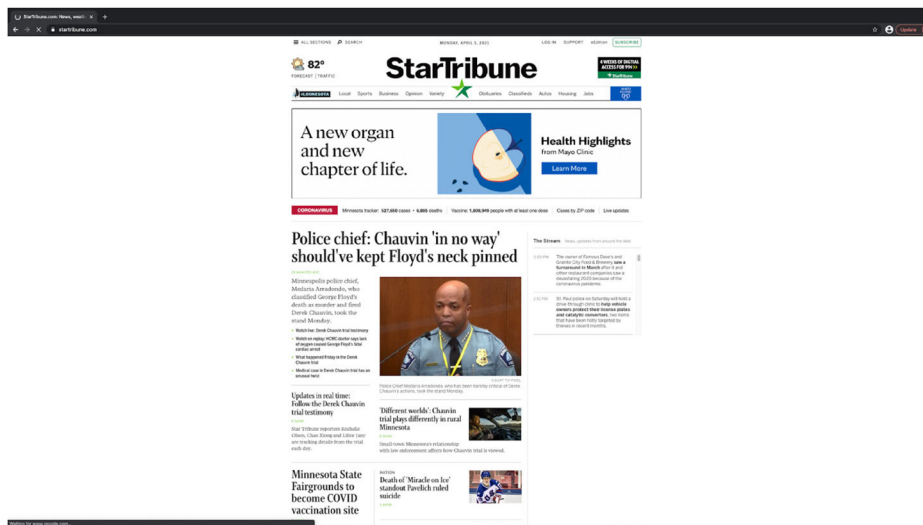


Figure 10. Star Tribune homepage (5 April 2021)

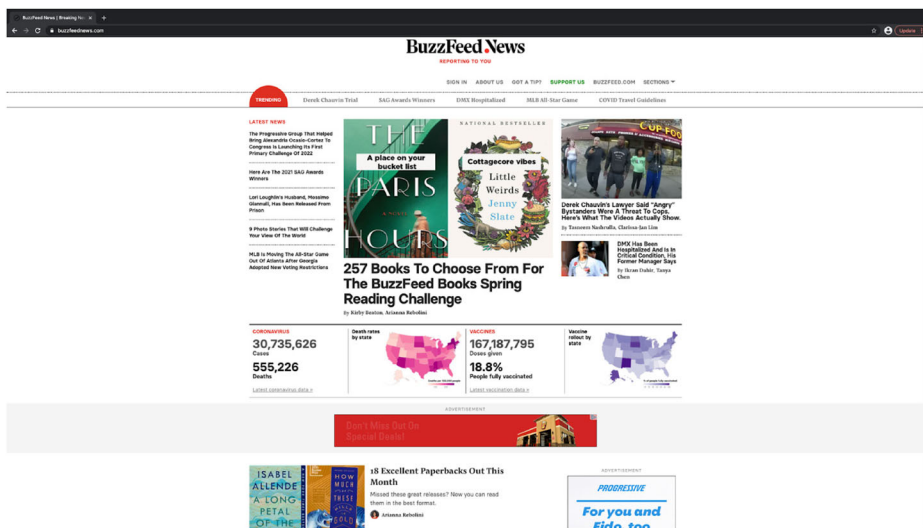


Figure 11. Buzzfeed homepage (5 April 2021)

In contrast, the layouts of digital-native homepages incorporated stylistic conventions from blogs and other digital media, featuring more streamlined layouts with more (and more prominent) photos and other graphics, and oftentimes presenting only headlines with no standfirsts (e.g., see Figures 11 and 12).

Digital-native news websites further stylistically distinguished themselves from legacy press websites through typographic design and use of color. As with their layouts, legacy press websites indexed the print newspaper through the common use of black-letter in their nameplates (e.g., Figures 8 and 9) or, when they used sans serifs, using simple sans serif typefaces (e.g., Figures 1 and 10). This reliance on classic simplicity

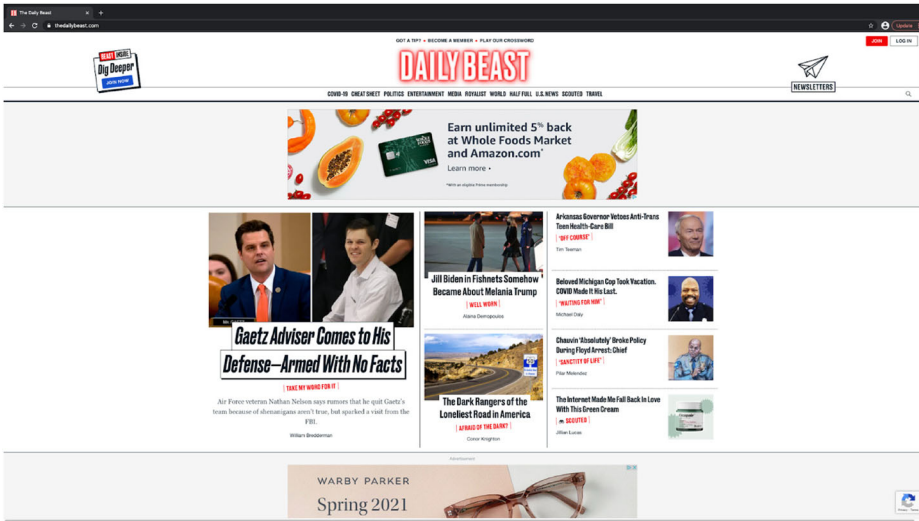


Figure 12. *The Daily Beast* homepage (5 April 2021)

# elite daily

Figure 13. *Elite Daily* nameplate (as of 5 April 2021, but since changed)

carried through to the body text of articles, where legacy press websites tended to use either book serif typefaces or simple sans serifs. In contrast, none of the digital-native websites in our sample used blackletter in their nameplates, instead engaging with contemporary typographic trends. This often meant having nameplates set in whimsical serif typefaces (e.g., Figures 11, 13, and 14) or more dynamic (often customized) sans serifs (e.g., Figures 12 and 15). And, when compared to legacy press websites, the articles on digital-native websites were more likely to be set in sans serif typefaces. Likewise, legacy press websites were categorically neutral in their use of color, opting either for black and white, like the print newspaper (e.g., Figures 8–10), or for classic “Old Glory” shades of deep red and blue that indicate Americanness while maintaining a dispassionate politics (e.g., Figures 16 and 17). Digital-native websites, alternatively, tended toward bolder colors, ranging from bright reds (e.g., Figures 11 and 12) to earthy greens (e.g., Figure 6) to highlighter yellow (e.g., Figure 14) to deep raisin (e.g., Figure 15), and to Egyptian teal (e.g., Figure 18).

Taken together, these stylistic variations do more than simply visually distinguish digital-native outlets from their legacy press counterparts. They also visually indicate what kinds of content audiences can expect from these outlets. The visual indexing of the print newspaper among legacy press websites communicates a continued dedication to the traditional editorial values of objectivity, political neutrality, and so on. In



Figure 14. Vox nameplate



Figure 15. Slate nameplate

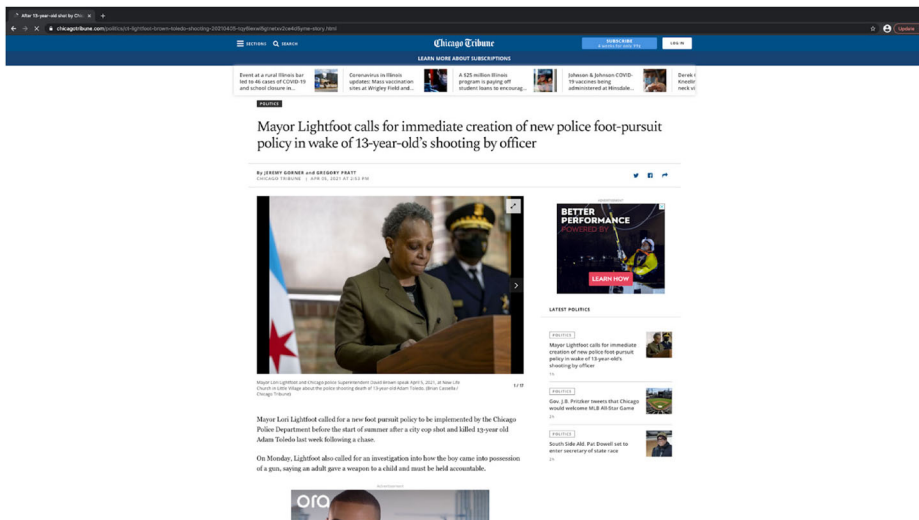


Figure 16. Article from *Chicago Tribune* (5 April 2021)

contrast, the embrace of more contemporary and trend-driven design styles among digital-native websites communicates a different editorial orientation—one that eschews, to a certain extent, the traditional values of the print newspaper and,

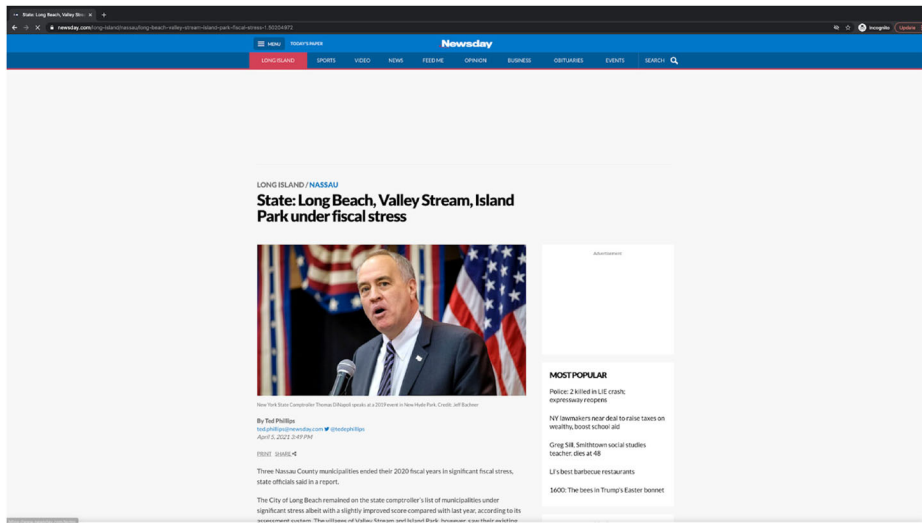


Figure 17. Article from *Newsday* (5 April 2021)

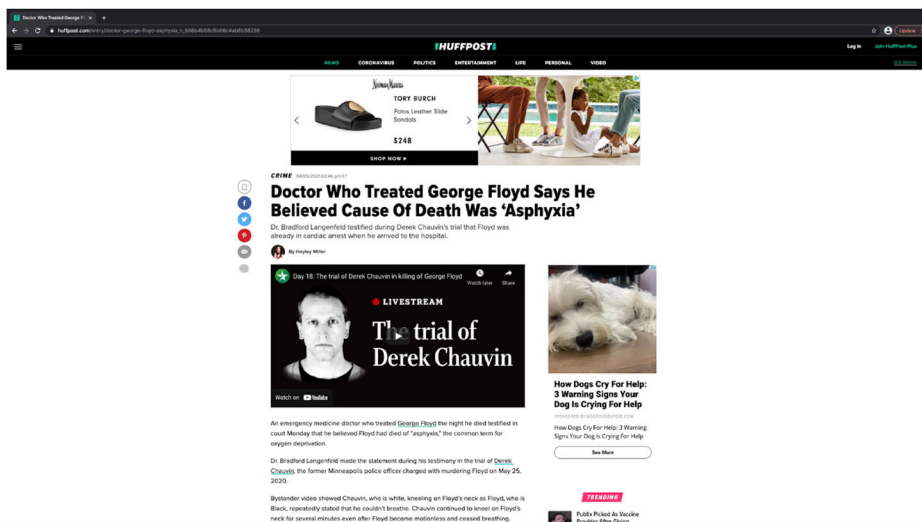


Figure 18. Article from *Huffpost* (5 April 2021)

instead, embraces a more transparent “view from somewhere” (Wallace 2019). These differences in design style, therefore, are consequential for media trust, as audiences perceive trustworthiness in the design of websites whose editorial orientations they share and perceive untrustworthiness in the design of those whose editorial orientations differ from theirs.

This dynamic parallels that of audience trust in fake news websites, which, like real digital-native websites, depart from the stylistic conventions of the legacy press, but which also depart in more nuanced ways from the stylistic features found among real digital-native outlets. Some similarities persist between real digital-native and fake news websites. For instance, the fake news websites in our sample tended to employ

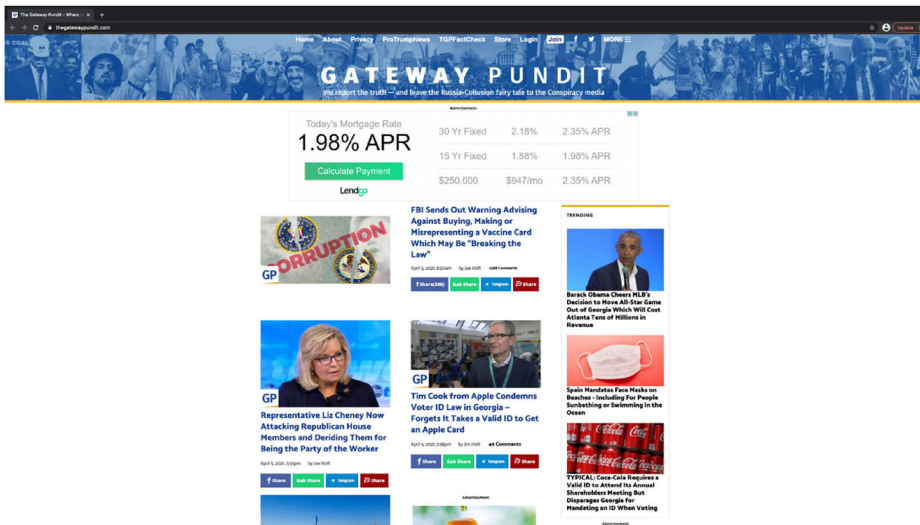


Figure 19. *The Gateway Pundit* homepage (5 April 2021)

similarly bold colors and also included a greater number of more prominently featured photographs than legacy press websites. That said, when compared to real digital-native websites, fake news websites were more likely to feature stock photos accompanying articles and significantly more likely to feature heavily edited photos, including photo collages with overlaid text (e.g., Figures 19 and 20).

Fake news websites also displayed significant differences in design style from real news websites in features like their layout. Across the displays in our sample, fake news websites tended to have simpler layouts that were, counterintuitively, also “busier” than real news websites. That is to say, their layouts were less complex, usually featuring more vertical arrangements of articles in a limited number of columns and with a greater degree of uniformity in text size (i.e., less hierarchical), but at the same time they tended to include significantly more content (and, in particular, advertisements). Contrast, for example, the fake news homepages in Figures 3 and 19–21 and the real news homepages in Figures 4, 11, and 12. Whereas the real news websites feature more horizontal arrangements of articles with variations in size to indicate hierarchies of significance among articles and ample white space giving the different articles room to “breathe” on the page, the fake news websites feature more vertical arrangements of articles with more uniform sizes and more closely packed together on the page. We also noted considerable variation in typographic design between real and fake news websites, with fake news websites often deviating from the conventions of both real digital-native and legacy press websites by using all-majuscule lettering (colloquially known as “all caps”), setting text with center alignment (rather than left alignment), and liberally emphasizing portions of sentences with bolding, italics, capitalization, or some combination thereof.

Fake news outlets did not merely use design style in ways that distinguished them from real digital-native and legacy press news outlets, however. Rather, among fake news outlets, different websites employed different design styles in ways that communicated their ideological biases. In certain instances, this was expressed through the

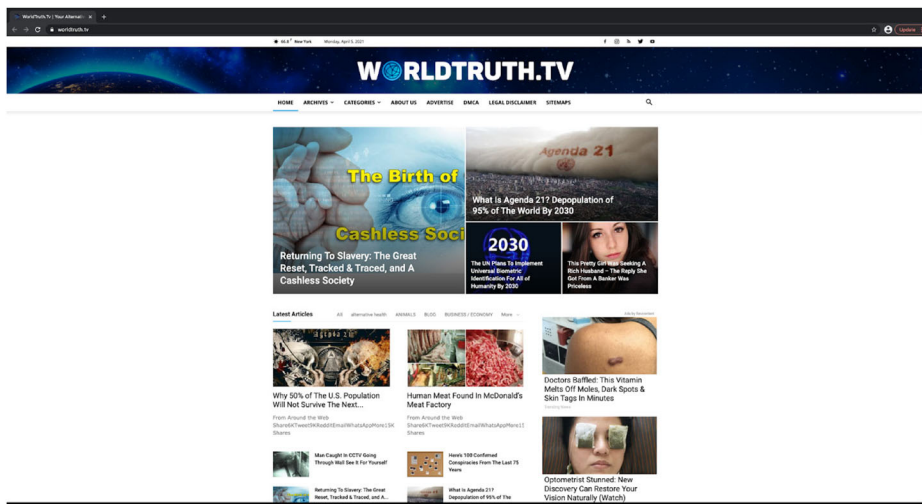


Figure 20. *Worldtruth.tv* homepage (5 April 2021)

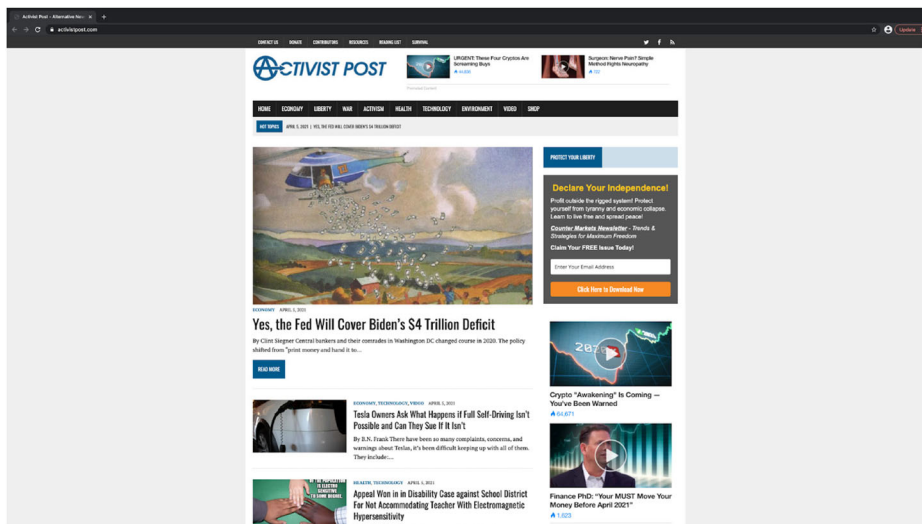


Figure 21. *Activist Post* homepage (5 April 2021)

presence of iconic motifs that carried identifiable political meanings. Some of these instances were more obvious, such as *Activist Post*'s mimicry of the anarchist "circle-A" symbol in their nameplate (see Figure 21), while others were more subtle, such as the recurrence of nationalist imagery across the *Infowars* displays. Beyond these kinds of motifs, the political alignments of different fake news websites were also seen in their more general stylistic approaches to website design. Specifically, conservative and far-right fake news websites exhibited a tendency toward low-quality graphic design, whereas liberal and left-leaning fake news websites exhibited more professional-looking graphic design. Compare, for example, the far-right fake news outlets *The Gateway Pundit* (Figure 19) and the *European Union Times* (Figure 22) to the left-leaning fake

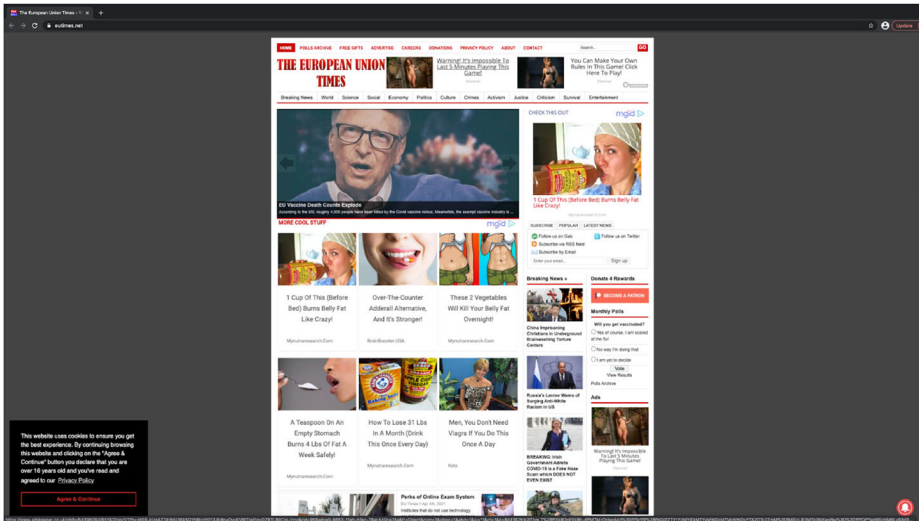


Figure 22. *European Union Times* homepage (5 April 2021)

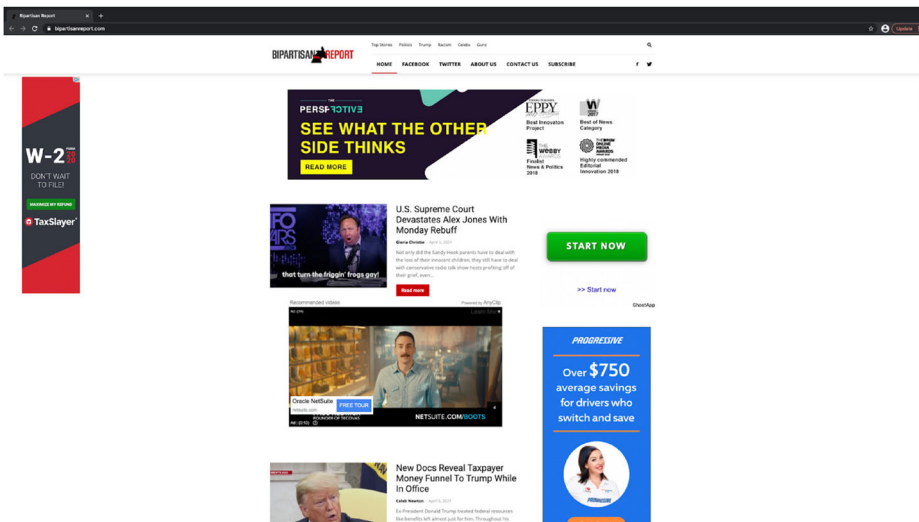


Figure 23. *Bipartisan Report* homepage (5 April 2021)

news outlets *Bipartisan Report* (Figure 23) and *Collective Evolution* (Figure 7). Whereas the far-right websites appear more amateur in their crafting, with low-quality graphics, word processor default typefaces, and clashing color palettes, the left-leaning websites appear more polished, with high-quality custom graphics, modern typographic design, and coherent color stories. While, at first glance, this partisan difference in design quality may seem strange, past research has demonstrated a *specific preference* among those more likely to vote conservative for lower-quality design (Zenner 2019). As such, there is a coherent logic to this partisan divide among fake news websites that goes beyond differences in “professionalism” or resource distribution. Liberal fake news

outlets are no more likely to be well-resourced than conservative ones, and the “un-professional” design qualities have little to do with lack of design skill, per se. (After all, it takes very little money to have a well-designed website.) The choice to use “un-professional” design reflects conservative fake news audiences’ normative orientations toward the very idea of professionalism as a feature of untrustworthy “liberal mainstream media.” Conservative audiences are likely to (correctly) perceive poorly designed fake news websites as aligned with their own politics and therefore trust them, whereas liberal audiences are likely to (correctly) perceive them as misaligned with their politics and therefore distrust them, and vice versa.

## Discussion

Our comparative visual analysis of fake and real news websites reveals an interesting duality in the presentation of news media content online—a duality that holds consequences for the role of visual cues as credibility heuristics for building news media trust. Our analysis lends some credence to established concerns among journalism scholars and practitioners that fake news sites may undermine overall trust in news media by visually mimicking traditional news in ways that, when paired with the falseness of their content, “trick” audiences into believing in misinformation (American Press Institute 2016; Clark 2014; Mahone and Napoli 2020; Murtha 2016; Silverman 2015; Wardle 2016). Indeed, fake news sites do, in the main, conform visually to the genre expectations of digital news media by emulating the visual look of their “real” counterparts. However, this is tempered by a competing visual necessity—the need to cue the editorial allegiances of the outlet. Most commonly this allegiance is ideological—further building on the ideological differences in design highlighted by the work of Schindler et al. (2017)—but we also find evidence that outlets utilize stylistic elements that may signal that they belong to a certain kind of media tradition, e.g. alternative news media or digital-native media. We argue that this visual signal to readers exists at the stylistic level—outlets intentionally deploy certain stylistic elements that are designed to signal to the reader that they can expect a certain voice or politics from the outlet. Building on Robertson and Mourão’s (2020) findings that fake news sites use shared textual self-presentations to cue ideological leaning, we thus find evidence that fake news sites utilize visual and esthetic cues in a similar way.

The duality of genre and style serves an interesting role within trust-building. Meeting the genre expectations of online news (or sometimes adjacent media types such as women’s magazines or broadcast news) is a necessary baseline for trust in news media to exist. If a website doesn’t *look like* news, it will not be *read as* news by audiences, and thus any trust that is built between the site and its audiences cannot be categorized as trust in news media. However, the stylistic elements we analyze in this study highlight another layer of trust-building as these elements are individually interpreted in ways that engender both trust and distrust. (Of course, this will be less important for outlets with strong brand identities, such as the *New York Times*, and more important for outlets that are less widely known.) For readers who do not hold the ideological biases or editorial preferences that are being cued, these stylistic elements may serve to detract from any credibility garnered through meeting the genre



expectations. This detraction serves as a demasking of sorts, revealing to the reader (even without them reading the news content) that the site is probably not the same as the trusted outlets included in their everyday news diet. For readers who share the ideological or media preferences that are cued by the site's stylistic choices, the trust-building potential of visual heuristics may be heightened. In such cases, the visuals of the site—at both a genre and stylistic level—may signal to the reader that the site is (a) a professional news media outlet and (b) one that produces content of a certain tone or ideological leaning that they align with. This combination can serve to strengthen the credibility of a fake news outlet in the eyes of amenable readers, especially in combination with other credibility heuristics such as brand familiarity and discursive cues. This echoes findings from research within social psychology that highlight how esthetic judgments influence an individual's processing fluency and, in turn, impact assessments of truth (Reber, Schwarz, and Winkielman 2004; Schwarz 2018).

A visual semiotic analysis of digital news media provides much-needed insight into the multi-faceted question of why individuals may trust (and use) fake news sites given the abundance of choice online. Notably, from the analysis emerges shared visual characteristics, both separately within the fake and real samples that marks them as differentiated, and between the categories, highlighting common genre expectations. Accordingly, this research serves to highlight the utility of visual analysis to understanding some of the core questions surrounding the fields of political communication and journalism. Central to concerns over fake news within journalism is the extent to which fake news sites both trick unwitting audiences into believing false information and, in this deceit, contribute to an overarching decline in audience trust in news media as a whole. However, the analysis presented in this article draws a more nuanced picture of the visual mimicry of fake news sites that, while not tempering these core concerns, disentangles why this mimicry may be perceived differently within news audiences. Notably, this analysis suggests that it is not a pure visual appropriation that is occurring, as fake news sites do not consistently or totally replicate the look and feel of their traditional sites. However, the stylistic alterations of fake news sites compared to real news sites do not necessarily degrade their potential to be believed and supported. Instead, stylistic differences may serve to better attract a particularized readership who build trust in the outlet because it does not strictly resemble mainstream news media sites. The more positive outcome of this stylistic differentiation, however, is that out-groups (those who do not share the ideological or media preferences being cued by the site) may be less likely to perceive a fake news site as legitimate, even if the site meets the visual genre expectations.

There are, of course, several limitations to the present study that necessitate further research. Importantly, this analysis focuses only on the US context, and there may exist substantial differences in design—and consequently the relationship between design heuristics and trust—in journalistic contexts outside of the United States. Furthermore, this analysis focuses on text-based news media, excluding popular online news websites that are more video-based such as CNN and NBC News. Such websites retain their own genre expectations that have similarly been mimicked by fake news outlets, though it fell beyond the scope of this study to investigate them given the different

design histories of print and broadcast news. Future research extending our proposed analysis to broadcast news content would add further understanding to the comparative trust-building processes of fake and real news sites.

More crucially, this article makes a somewhat speculative, albeit theoretically informed argument about the relationships between design and trust. But this was not an audience study, and thus we cannot make solid claims about the quantitative or qualitative effects of the design features we analyzed. While a visual analysis allows us to take account of shared elements and differentiation across news media sites, real and fake, further research is necessary to confirm not only the producer intentions guiding these visual choices, but also the audience reception of visual cues. Our analysis, in tandem with extant literature on perceptions of political and ideological meaning in visual reception, suggests that news audiences engage in political meaning-making when assessing the look of a news site. Future research should, therefore, look to examine this phenomenon empirically, testing if and how audiences perceive ideological meaning in specific design choices made by news sites. In addition, visual analysis of content is limited in its ability to attribute intent—assertions can be made given a coalescence by particular producers around certain design choices that news producers believe certain elements confer particular meanings or a sense of credibility. As such, further research in the form of interviews with news media producers centered on design choices is vital to ascertain specifically why news media outlets make those choices. Both of these approaches will prove rich areas for further scholarly inquiry.

## Note

1. Of course, the labels of “real” and “fake” news are overly simplistic. Attributions of facticity are difficult, particularly where it concerns politics, and there are “real” outlets that sometimes share disinforming content just as there are “fake” outlets that sometimes share informing content. However, both colloquially and in scholarship, the term “fake news” has been adopted to reference various forms of alternative news with a tendency to publish disinformation, while “real news” has been adopted to reference professionally produced news adhering to widely held journalistic standards. While acknowledging the shortcoming of dichotomous “real” and “fake” news labels, we retain them here as a linguistic short cut to indicate these longer definitions.

## Disclosure Statement

No potential conflict of interest was reported by the authors.

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