Income or inconvenience? Digital video advertising adoption lags among U.S. community newspapers
by Burton Speakman and Michael Clay Carey

Abstract
This study reviews diffusion of video and video advertising on the Web sites of 400 community news outlets in the United States. Results suggest that while a significant number of community news outlets publish editorial videos online, video advertising lags behind larger publications. The study argues that elements such as circulation and size of a media corporation have little influence on the development and use of video and video advertising on community media Web sites in the U.S.

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Introduction
Video has become an important content tool for journalists in pursuit of new ways to interact with audiences in an increasingly digital world. As consumption of news moves toward mobile devices and user preferences change, newspapers and other print-centric organizations are becoming more attuned to the importance of video as part of their online strategies (Bock, 2016; Jang and Park, 2016; Hussain, 2011; Huang, 2007). Mobile consumption of news has expanded significantly; in 2017, more than 71 percent of Web use occurred on mobile devices (Chen, 2017). The use of video as a vehicle for local advertising, particularly video advertising developed for consumption on mobile devices, has grown more slowly, but publishers increasingly view video as a viable source for digital revenue (Kalogeropoulos and Nielsen, 2018; Chen, 2017; Tran, 2017). As audiences — and advertisers — continue to leave print media, the evolution of video as a platform for advertising will grow even more important to local, regional, and national newspaper publishers (Grabowicz, 2018). Publications of all sizes must meet the demands of consumers who increasingly view news online via computers and mobile devices (Abernathy, 2014; Pew Research Center, 2016). As they do so, mobile video advertising will grow as a valuable potential revenue stream (Pew Research Center, 2016).
his research examines the diffusion of video advertising through analysis of its use by small-circulation community newspaper publishers in the United States. Community newspapers — generally understood as newspapers with circulations under 50,000 (Lauterer, 2006) — accounted for 85 percent of all newspapers and three-fifths of all newspaper circulation in the U.S. in 2015 (Reader, 2018). Despite their dominance in the U.S. media market, community news organizations are often overlooked by academic researchers (Reader, 2018). The concepts of diffusion of innovation and institutional isomorphism explain the means by which a new technology — such as video advertising — ceases to become “new” and instead becomes an industry standard (Rogers, 2003; DiMaggio and Powell, 1983; Roberts and Saint, 2015; Huang, 2007). Previous studies have shown that U.S. community newspaper publishers have been slower than larger publishers to implement new technologies (Huang, 2007; Greer and Messing, 2004; Garrison, 2001). The objective of this study, a content analysis of the Web pages of 400 community newspapers in the U.S., is to examine how widely digital video advertising is used by small-circulation newspaper publishers in the U.S., and to explore whether organizational or economic factors such as circulation, corporate structure, impact newspapers’ use of video advertising. A secondary qualitative analysis accomplishes an additional goal of the study: to describe and categorize the uses of video advertisements among hyperlocal newspaper Web sites that have adopted them.

This study shows that the use of video reached a level of diffusion on community media Web sites that goes beyond the “gaining momentum” stage described in prior research (Huang, 2007). However, the monetization of that content through the use of video advertisements has not. Factors such as circulation size and ownership resources appear to have little influence on choices regarding video made by community media, a finding that differs from research on other Web-based evolutions, such as social media use. Through a secondary qualitative analysis, the study shows how community newspapers that have adopted video advertising are using it.

The findings raise interesting questions about the factors that enable or limit its use by smaller U.S. news environments. A variety of factors may influence decisions regarding the use and prevalence of video advertising, ranging from work routines and training (Swasy, 2016) and support of management (Garrison, 1998) to the ubiquity of platforms such as YouTube, which are easy to use but limit local control and revenue potential. The implications of those questions are discussed. The goal of this paper is simple, the researchers seek to learn if community media have learned to create profit opportunities on their Web site during a time when more than 1,700 weekly newspaper and 1,800 total publications have closed their doors in recent years in the United States (Abernathy, 2018).

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**Literature review, hypothesis, and research questions**

**Digital video and advertising**

As more people turn to mobile devices for information, and as young audiences increasingly turn away from print to consume news online (Grabowicz, 2018), print news organizations in the U.S. are quickly realizing that they can no longer view video news as a “novelty” [1]. The number of newspaper Web sites containing videos has grown rapidly in recent years (Bock, 2016), and the digitization of news makes it possible for publishers with web or mobile-based products to better understand what content audiences consume (Kormelink and Meijer, 2018). News industry changes associated with digital media have both “blurred distinctions between print and video-based organizations” and “disrupted the traditional relationship between publishers and advertisers,” [2]. Initially, media companies were reactive in making decisions related to the Web, but most have become more proactive in digital strategies and investments — particularly in the sphere of digital video — based on their understandings of what audiences want (Kalogeropoulos and Nielsen, 2018). Many news companies are adding video journalists even as they cut positions elsewhere (Kalogeropoulos and Nielsen, 2018), and companies are increasingly targeting video
initiatives for mobile devices (Cornia, et al., 2016).

Video also is becoming an essential tool for advertising in digital spaces (Kross, 2015; Pew Research Center, 2016). Media companies receive more revenue from video advertisements than from online banner ads, making them more attractive to publishers (Kalogeropoulos and Nielsen, 2018). However, for most media companies video is not yet profitable and media companies often rely on platforms such as Facebook and YouTube to create opportunities for monetization (Kalogeropoulos and Nielsen, 2018). U.S. digital video advertising revenue, which includes advertising viewed on computers, tablets, mobile devices, and any other devices with Internet connections, is expected to continue to increase from $US13.23 billion in 2017 to $US22.18 billion by 2021, (eMarketer, 2017; Tran, 2017; Cornia, et al., 2016).

The simultaneous expansion of the video advertising market and mobile audiences have created new demands and opportunities for publishers (Pew Research Center, 2016; Jang and Park, 2016). Increasingly, consumers prefer to consume videos on smartphones rather than larger screens (Jang and Park, 2016). While video advertising overall is trending upward, the majority of that growth has occurred on mobile Web sites (Chen, 2017; Tran, 2017). Mobile advertising represents more than half of all digital advertising, and video is about 30 percent of all display advertisements (Pew Research Center, 2016). In fact, mobile is the primary driver of overall digital advertising growth (Pew Research Center, 2019). When it comes to video and its presentation, technology use matters. While some are critical of autoplay functionality, for example, some research suggests autoplaying of videos may actually appeal to many news consumers in digital spaces who prefer scanning to clicking (Kormelink and Meijer, 2018). However, many media companies remain unsure of the best method to monetize online news videos (Cornia, et al., 2016), in part because of a lack of comprehensive data on digital advertising (Pew Research Center, 2016).

Community media and digital technologies

Although community newspapers make up the largest sector of the United States newspaper industry, academic studies of them are relatively infrequent (Reader, 2018; Adams, 2008). Existing research has often found that digital innovation typically occurs at larger newspapers before it does at smaller newspapers (Huang, 2007; Greer and Mensing, 2004; Garrison, 2001) and that larger newspapers are frequently more active in the digital sphere than their smaller counterparts (Xu, 2014; Carey, 2014; Schultz, 1999). Often, the differences in digital strategies of large and small news organizations relates to budget limitations — a larger news organization may be in a better financial position to integrate new technologies and commit more people to the development of digital content (Zaleski, 2018; Cornia, et al., 2016; Greer and Mensing, 2004; Schultz, 1999). However, differences in use of technologies have been explained in other ways. In their study of newspapers’ use of the social media platform Pinterest, Greer and Ferguson (2016) found newspapers with smaller circulations used Pinterest most often for promotion and had a larger number of boards, while newspapers with larger circulations used it for news, lifestyle, and community boards. Their study suggested the difference could be attributed to smaller newspapers’ desire to connect with community through the platform (Greer and Ferguson, 2016). Schultz (1999) similarly suggested staff at hyperlocal newspapers might feel less need to use digital technologies because of a pre-existing perception of closeness with their audiences.

The development of online video content has been a challenge for many companies that have traditionally worked with text, especially smaller publications with more resource limitations (Cornia, et al., 2016). In Huang’s (2007) content analysis of rich media use on U.S. newspaper and television Web sites, the sites operated by what the author referred to as “top newspapers” (that is, newspapers whose circulations were among the highest in the U.S.) consistently provided more video content than his overall newspaper sample, which also included smaller dailies. Kross (2015) suggested smaller publishers could find more success through partnerships with video-based companies, a strategy that could develop new content and protect digital advertising inventory. The development of digital revenue has been just as challenging for local publishers. As traditional audiences dwindle and advertising opportunities shift, community media outlets must increase digital revenue streams to ensure their survival (Abernathy, 2014). However, print-based news outlets in the U.S. typically receive less than 20 percent of their revenue from digital platforms
In Nagel’s (2015) study of Canadian community newspapers, 68 percent of the publications studied were making no revenue from their Web sites; 88 percent made less than five percent of their annual revenue from online advertising. Nagel reported that three-quarters of the newspaper executives surveyed expected online advertisements to grow, but at the same time, they said they believed they would not be impacted by industry transitions in the same ways that larger newspapers were affected (Nagel, 2015). It should be noted that small news organizations are not the only ones struggling to maximize potential digital income and online audience engagement. Chen (2017) noted that many media companies’ Web sites fail to interface well with mobile devices. Additionally, attempts to boost revenue on digital platforms by using techniques such as video advertisements that play automatically are often among the online elements most often criticized by consumers (Zaleski, 2018).

Theories of technology adoption

Diffusion of innovation theory can explain how new technologies spread among members of a social system over time (Rogers, 2003; Robertson, 1967). Rogers’ model identifies five categories of innovation adopters, based on the relative time at which they adopted the innovation: innovators, early adopters, early majority, late majority, and laggards (2003). In this model, innovation often moves slowly at first because there are relatively few innovators to spread new ideas or techniques (Rossman, 2012; Robertson, 1967); once innovation reaches its critical mass (Rogers, 2003; Rossman, 2012), the innovation comes be seen as appealing or useful to potential users and its diffusion becomes more rapid (Garrison, 2001). Rogers (2003) suggested innovations must meet five benchmarks on the path to adoption: “1) Relative advantage over existing innovations; 2) Compatibility to existing work routines; 3) Complexity of the innovation; 4) Trialability, or is it easy to experiment with the innovation; and 5) Observability, or how visible is it to colleagues and bosses?” [3]. Opinion leadership has also been shown to influence the diffusion of innovation. Weir’s study of reader use of electronic newspapers suggested opinion leadership provides “much of the critical information and opinion that sparks others to adopt an innovation ... . The adoption of an information utility, as distinct from almost any other category of consumable, is sought after by opinion leaders within the social system. This is, after all, part of what allows these individuals to be opinion leaders in the first place” [4].

Studies have shown a number of factors that influence the diffusion of technologies and tools in newsrooms, including peer pressure, compatibility with existing work routines, and coaching (Swasy, 2016), opportunities to partner with other media organizations (Bressers, 2006), corporate mandates (Roberts and Saint, 2015) and management’s embrace of technologies (Garrison, 1998), trust in technologies to enhance work (Garrison, 2001), the complexity of the innovation (Maier, 2000), and decreasing costs and the growing ubiquity of computer technologies (Garrison, 2000). Huang suggested in 2007 that the use of video on widely circulated newspaper and television Web sites had passed the point of critical mass; 42 percent of the U.S.’s largest daily newspapers and 47.9 percent of the television stations analyzed for that study were providing video content on their Web sites. Rich media use online among all the daily newspapers reviewed for his study, by comparison, was at 10.9 percent but “still gaining momentum” [5]. While U.S. newspapers were using video online in 2007, Huang observed, they relied heavily on video content from wire services and produced comparatively little local video content themselves.

The concept of institutional isomorphism explains technology adoption in a different way, suggesting that institutions may “seek legitimacy by becoming more like others in their environments” [6], and that adoption of technology is a part of that assimilation process. Institutional isomorphism suggests actors within a field, such as journalism, will gravitate toward practices that are viewed as standard within that field. DiMaggio and Powell (1983) identified three mechanisms through which isomorphic change may occur: coercive isomorphism, which is typically a product of political influence or institutionalized philosophies within a field; mimetic processes that occur when, in the face of organizational uncertainty, institutions in a field model their practices after those of similar (and seemingly legitimate or successful) actors; and normative pressures that stem mainly from professionalization. Roberts and Saint (2015) suggested mimetic isomorphism as a likely reason for the adoption of QR codes by newspaper executives.
Based on literature describing innovation at small news organizations and trends in video advertising, the present study poses the following hypothesis and research questions:

\[ H1 \]: Community media Web sites will exhibit low levels of adoption of local video advertisements.

\[ RQ1 \]: Does circulation influence the number of videos present on community media Web sites?

\[ RQ2 \]: Does the number of publications a media company owns influence how much video content is published on community media Web sites?

\[ RQ3 \]: Does the style of ownership (independent, hedge fund, or publicly traded) influence the amount of video content published on community media Web sites?

\[ RQ4 \]: How do community news organizations present local video advertising?

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**Method**

**Quantitative content analysis**

This project uses quantitative content analysis to examine the diffusion of video on community media Web sites in the U.S. To create the potential population for this study, the researchers used the *Gale Directory of Publications and Broadcast Media* to create a list of publications with stated circulations of 50,000 or less, based on the definition of community news used by Lauterer (2006). The researchers considered only community news outlets that had Web sites, made circulation figures available, and reported publication frequency. The total potential population was fewer than 3,700 community media outlets. A random sample of 400 news organizations was drawn for this content analysis, constituting 10.8 percent of the population (Riffe, et al., 2013). Sites were coded for company ownership (publicly owned, privately owned, or owned by a hedge fund), print circulation, the presence of video content, presence of local video content, presence of video advertising, presence of local video advertising, presence of user-generated content, priority given to video (if present), and whether videos autoplayed. Researchers coded the sites over a six-week period in January and February of 2019. To ensure intercoder reliability, the sites were coded on the same days with researchers beginning coding at the same time to minimize risk of site updates adversely impacting coding.

Prior to conducting the content analysis, two coders engaged in an intercoder reliability test using a sample of 40 Web and mobile sites, representing a total of 10 percent of the overall sample. Twenty-five variables were coded by each coder, with intercoder reliability scores Krippendorff’s alpha ranging from .713 to 1. All but four of the questions received Krippendorff’s alpha scores of .8 or greater. Those scores for Krippendorff’s alpha are above the minimums suggested by Riffe, et al. (2013) for intercoder reliability. One of the challenges for the Krippendorff’s alpha scores, which often fell well below percent agreement, is the binary nature of many of the questions. In this study, 15 of the questions required binary answers of yes or no. Researchers used the ReCal Web site to calculate scores. For every variable coded in this study, percent agreement was greater than 85 percent.
The researchers coded for the presence of video and video advertisements on both desktop and mobile browsers. With one exception (the presence of mobile-responsive Web sites), mobile results were discarded because the mobile sites were nearly always identical to their desktop counterparts in terms of the number of videos, location of content, and presence of advertising. The only notable difference was the position priority of video content; on occasion, a news organization’s desktop Web site might have a popup video that its mobile counterpart did not. The work of Roberts and Saint (2015) influenced the form and structure of this study’s use of content analysis to examine diffusion of innovation.

**Exploratory qualitative analysis**

Following the content analysis, the researchers conducted a secondary exploratory analysis focused on community news organizations that utilized video for local advertising. The sample for that qualitative description included 33 unique local video advertisements or sponsorships that appeared on community news Web sites that utilized local video content. The secondary analysis was designed to produce a better understanding of the approaches to video advertising used by innovators and early adopters (Rogers, 2003) of video advertising at community newspapers in the U.S. Qualitative description, most commonly used in studies of medical issues, is particularly useful for describing phenomena that are poorly understood because the method produces data that may help define future studies (Kim, et al., 2017; Sullivan-Bolyai, et al., 2005). Qualitative description tends to be more flexible and less theoretical than other qualitative research approaches (Neergaard, et al., 2009). For this study, the researchers utilized a constant comparative approach to qualitative description, an approach designed to “organize and consolidate data into parsimonious groupings” [10].

The authors independently viewed each Web site drawn for the qualitative analysis every Wednesday from 1 November 2019, to 18 December 2019, recording and analyzing all local video advertisements that appeared on the Web sites on those days. This sampling method produced local video advertising from 16 different community newspapers. Data collection ceased when the point of theoretical saturation was reached (Strauss and Corbin, 1990). Each video was subjected to three separate readings — a first reading to familiarize the researchers with advertisements, a second to allow for broad categorization of themes within video advertisements and patterns among themes, and a third to reinforce or refine interpretations (Fürsich, 2009; Worthington, 2001). The authors consulted with each other following each reading to develop groupings and refine the analysis.

**Findings and discussion**

The *Statesboro Herald* in Statesboro, Georgia, engaged in video at a rate that was more frequent and more sophisticated than other publications in the qualitative sample developed for this study. The *Herald’s* Web site contains at least three video news segments each week: one focused on Georgia Southern University sports, another focused on local high-school sports, and a weekly news show. The news show featured two sponsors and their embedded advertisements, and the sports shows featured a single local embedded advertisement. Those weekly programs featured the same advertisers every week for the duration of our review. Other videos, often highlighting local individuals such as student athletes and law enforcement officials, featured additional advertisers. Video advertisements ranged in sophistication from simple slides featuring the names of local businesses, to videos featuring interviews, voiceovers, b-roll and background music. The *Statesboro Herald’s* use of video classified advertising was another feature that set it apart from other news organizations in the sample. As many as nine different video classified ads, generally about 30 seconds in length, appeared on the Web site’s corporately managed classifieds system at any given time. The videos solicited applicants for positions as bus drivers, fast-food workers, poultry processing plant employees, and other jobs likely to experience high rates of turnover.
The Statesboro Herald was the only newspaper in the study’s sample owned by Morris Multimedia, which appeared to approach Web development and advertising differently from other media conglomerates. A review of several other Morris Web sites suggested the company’s news organizations have greater autonomy to dictate digital features and functionality than do news organizations owned by other large media companies, such as Gannett or Digital First. Among newspapers in the sample reviewed for this study, the Herald stands out as an example of a community news organization that has leveraged video for commercial success. It is possible that, as the publication closest to Morris’ corporate office, the Herald serves as a type of laboratory where the company attempts new ideas for the Web site. It is also possible the publication has found a number of community businesses that are willing to advertise on Web-based news stories. The frequency and consistency of postings suggests the videos have found an audience, providing some motivation and a template for other U.S. community media outlets in the future.

The Herald, in fact, represents such an outlier in this study that the publication likely deserves more detailed and individualized treatment in a follow-up study to learn more about how and why they’ve had success in these efforts and why they have not spread to other publications owned by Morris Multimedia. So, while the Herald may serve as an exemplar, it was also an outlier in this study, in that it used editorial video and video advertising far more than its peers. To address H1, descriptive statistics were used to examine the adoption of local video advertisements on community news Web sites in the U.S. When considering this figure, it is important to note just how many community media Web sites contain video of any type. The analysis found 193 (48.3 percent) of Web sites contained some videos and 135 (33.8 percent) included local videos. Only 19 (4.8 percent) of the Web sites featured local video advertising. Among sites that published videos, 9.8 percent also had local video advertising, and of the sites that had local videos, 14.1 percent also included local video advertising. Those figures pale in comparison even to the number of Web sites that contained nonlocal advertising. The sample included 110 Web sites (27.5 percent) that utilized some form of video advertising. These findings support H1, which predicted community media Web sites would exhibit a low level of adoption of local video advertising.

To further test this hypothesis, the researchers conducted independent sample T-tests to determine whether there was a difference in the use of local video advertising based on ownership model. There were no statistically significant differences found between independently owned, hedge-fund owned, or publicly traded media companies in their adoption of local video advertising. The results support the idea that even if the U.S. media industry as a whole is coming to find video advertising more profitable (Kross, 2015; Pew Research Center, 2016), that innovation has been slow to move to community media Web sites.

To test factors that might influence the amount of video that might appear on community media Web sites (RQ1), the researchers used a linear regression with circulation as the dependent variable and independent variables including the presence of video, presence of local video, number of videos published, number of local videos published, and presence of advertising and local video advertising. The model was statistically significant. However, the six variables included in the model only predicted 5.7 percent of the variance (Table 1).

<table>
<thead>
<tr>
<th>Table 1: Linear regression predicting the influence of circulation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: R = .266, Adjusted R Square = .057; F = 5.003; d.f. 6;</td>
</tr>
<tr>
<td>p&lt;.05*, p&lt;.01**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web site contains video content</td>
<td>-1329.335</td>
<td>2196.831</td>
<td>-.066</td>
</tr>
<tr>
<td>Web site contains local video content*</td>
<td>4744.151</td>
<td>2294.042</td>
<td>.222</td>
</tr>
<tr>
<td>Number of videos</td>
<td>891.679</td>
<td>611.618</td>
<td>.161</td>
</tr>
</tbody>
</table>
The presence of local videos was the only variable that reached statistical significance ($\beta = .222, p < .05$). The result suggests overall that print circulation has a minimal influence on whether a newspaper’s Web site contains video, how much it contains, and whether it includes video advertising. This finding is particularly interesting given previous studies of diffusion of innovation in journalistic use of social media, which demonstrated a relationship between circulation and the adoption of technology (Greer and Ferguson, 2016).

While previous research suggests larger media organizations use new technology before smaller ones (Huang, 2007; Greer and Mensing, 2004; Garrison, 2001), that was not the case in this study of U.S. community media. The small differences between larger publications and smaller ones in relation to both circulation and the number of outlets owned by a company suggests other factors likely have more influence on decisions to use online video, how much video to use, and whether to use it for advertising purposes. Previous studies have suggested managers’ attitudes toward new technologies are a factor in their adoption (Garrison, 1998; Roberts and Saint, 2015), connecting to the arguments of Abernathy (2014), who wrote about the challenges community media have in training their smaller advertising and editorial staffs to take advantage of online tools.

To address $RQ2$ and measure the possible influence of the number of media outlets owned on the use of video online, the researchers again utilized linear regression. The independent variables were the presence of video, presence of local video, number of videos published, number of local videos published, presence of video advertising, and presence of local video advertising. The model was again statistically significant, with the variables predicting 14.4 percent of the variance (Table 2).

<table>
<thead>
<tr>
<th>Number of local videos</th>
<th>826.563</th>
<th>720.236</th>
<th>.127</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the site have video advertising?</td>
<td>-2181.256</td>
<td>1641.999</td>
<td>-.096</td>
</tr>
<tr>
<td>Does the site have local video advertising?</td>
<td>2986.022</td>
<td>2620.002</td>
<td>.063</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Table 2: Linear regression predicting the influence of the number of media outlets owned by a publication’s parent company.</th>
</tr>
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<tbody>
<tr>
<td>Note: $R = .396$; Adjusted $R$ Square = .144; $F = 12.217$; d.f. 6; $p &lt; .05$*; $p &lt; .01$**</td>
</tr>
<tr>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Web site contains video content</td>
</tr>
<tr>
<td>Web site contains local video content</td>
</tr>
<tr>
<td>Number of videos</td>
</tr>
<tr>
<td>Number of local videos*</td>
</tr>
<tr>
<td>Does the site have video advertising***?</td>
</tr>
<tr>
<td>Does the site have local video advertising*?</td>
</tr>
</tbody>
</table>
Within that model, three variables were statistically significant: the number of local videos on a Web site ($\beta = 0.231, p<0.05$); presence of video advertising ($\beta = -0.249, p<0.005$), and presence of local video advertising $\beta = 0.124, p<0.05$). While the model is significant, it still suggests the number of outlets owned by a media company has a negligible impact on decisions regarding the publication of video and of advertising therein.

To address RQ3, a linear regression tested whether ownership model (independent, hedge fund, or publicly traded) influenced the use of video content and video advertising. The independent variables were, again, the presence of video, presence of local video, number of videos published, number of local videos published, presence of video advertising, and presence of local video advertising. In this instance, the model was statistically significant with the variables predicting 15.7 percent of the variance (Table 3).

**Table 3: Linear regression predicting the influence of the ownership model (independent, hedge fund, or public) of a publication’s parent company.**

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web site contains video content</td>
<td>0.064</td>
<td>0.137</td>
<td>0.048</td>
</tr>
<tr>
<td>Web site contains local video content</td>
<td>0.236</td>
<td>0.143</td>
<td>0.168</td>
</tr>
<tr>
<td>Number of videos</td>
<td>-0.021</td>
<td>0.038</td>
<td>-0.058</td>
</tr>
<tr>
<td>Number of local videos**</td>
<td>0.184</td>
<td>0.045</td>
<td>0.428</td>
</tr>
<tr>
<td>Does the site have video advertising**?</td>
<td>-0.485</td>
<td>0.102</td>
<td>-0.325</td>
</tr>
<tr>
<td>Does the site have local video advertising**?</td>
<td>0.495</td>
<td>0.163</td>
<td>0.158</td>
</tr>
</tbody>
</table>

Three variables were statistically significant: the number of local videos on a Web site ($\beta = 0.428, p<0.005$); presence of video advertising ($\beta = -0.325, p<0.005$), and presence of local video advertising ($\beta = 0.158, p<0.005$). While the model again was statistically significant, the influence of the ownership model appears to be minor as it relates to the number of videos published and whether those videos contain advertising.

The overall results of this study demonstrate just how little U.S. community media are using video as a vehicle for advertising. It is possible that, in the next few years, video as a form of innovation could reach critical mass and grow in popularity among community media publishers (Garrison, 2001; Rogers, 2003; Rossman, 2012). However, it might be equally as likely that community media organizations avoid video because of the continued challenge of monetizing the content (Cornia, et al., 2016). Additionally, the challenges of changes to existing work routines and complexity (Swasy, 2016) may remain too much for small staffs to overcome.

The only two variables in this study that did seem to hold explanatory power were technical in nature. The first was the priority of video on the page. This dependent variable was coded based on whether a video appeared immediately on the home page, before a reader had to scroll down (high priority); somewhere lower on the home page (medium priority); on a page other than the home page, but not on the home page itself (low priority), or nowhere on the site. Using the dependent variable of video priority and the independent variables of presence of video, the presence of local video, number of videos published, number of local videos published, presence of video advertising, presence of local video advertising, and whether the site was mobile-responsive explained 78.9 percent of the variance ($R = 0.890$; Adjusted R
Square = .789; $F = 213.754; \text{d.f.} 7; p<.01$. Two variables were statistically significant: the presence of video ($\beta = -.737; p<.005$) and the number of videos published ($\beta = .187; p<.005$). Of course, one might expect that community media Web sites that place a high priority on video placement would also contain more video content.

The other dependent variable that predicted a sizable amount of the variance was whether a video on a site autoplayed. In this linear regression, the dependent variable was the presence or absence of videos that autoplayed, and the independent variables were the presence of video, presence of local video, number of videos published, number of local videos published, presence of video advertising, and presence of local video advertising. The model was statistically significant $\chi^2 (6, N = 400) = 163.696, p<.001$. The model explained between 33.6 percent (Cox and Snell R Square) and 62.4 percent (Nagelkerke R Square) of the variance based on the separation of user-generated content from staff-produced content, and correctly classified 91.3 percent of cases. The strongest predictor was the presence of video advertising with a $\beta$ of 4.301. Again, this finding is perhaps unsurprising in that sites that use autoplay would seem to place a higher priority on video as an advertising tool. Simple observation of the sites, while not coded, showed that autoplay was nearly the exclusive domain of advertising. Few Web sites analyzed for this study utilized autoplay for videos that were purely editorial in nature.

Exploratory qualitative analysis

U.S. community news Web sites that utilized local video advertising were subjected to a secondary qualitative review to examine how early adopters in the community media sphere were generating revenue at the local level. The sample yielded 33 unique instances in which video was used for local advertising purposes or where local video was otherwise leveraged to generate revenue (the distinction will be explained later). Individual advertisements analyzed sometimes appeared multiple times on a Web site, or, in one case, across multiple Web sites owned by the same newspaper group. Often, a single advertisement was embedded in multiple videos on a Web site. The products and services advertised through or alongside videos most often were the same types of products and services on which local newspapers have historically relied for advertising revenue: help-wanted ads (nine unique ads, all appearing on the same Web site), hospitals and medical services (five unique ads on four different Web sites), real estate and rental housing (four unique ads on three different Web sites), and automotive sales (three unique ads on three different Web sites). Other advertisements promoted local restaurants, retail and commercial services, non-profit organizations, a credit union, a vocational school, and a telecommunications company.

The presentation of local video advertising on community newspaper Web sites viewed for this study may be categorized in three ways. Seventeen of the advertisements appeared as stand-alone advertisements placed on the newspaper’s homepage, or alongside stories or other pages. Stand-alone advertisements generally ranged in length from 37 seconds (for a real estate company) to one minute (for a medical group). Stand-alone advertisements frequently appeared on Web site homepages in rail positions accompanied by other advertisements. On a few occasions, they were explicitly labeled as “sponsored content” — for example, one 32-second video sponsored by an automotive dealer highlighted a banquet honoring first responders; another video labeled “sponsored content” promoted the services of a chimney sweep (the video was similar in tone and production to other stand-alone video advertisements that did not carry the “sponsored content” label).

Thirteen of the advertisements were embedded into videos featuring local editorial content. Embedded advertisements appeared at different points during their videos, but were most commonly placed at the beginning or in the middle of videos. They ranged in length from nine seconds (for a credit union) to more than a minute (for a real estate agent). It was not uncommon for standing features, such as weekly sports updates, to be accompanied by the same embedded advertisements every week. Most advertising content that appeared as stand-alone advertising or embedded ads in editorial content primarily featured individuals associated with local businesses and/or images of the business itself, suggesting they were built locally (either by the news organization, the advertiser, or the advertiser’s agent). One ad — an embedded commercial for Chevrolet dealership — consisted primarily of stock footage from Chevrolet of the
automobile being advertised, with a slide promoting the dealership at the end. Ads such as this were uncommon — most ads reviewed for this sample emphasized images and voices of local individuals.

On three other occasions, local businesses supported local video content through sponsorships without being promoted in video form. For example, one Web site noted an automobile dealership’s sponsorship of a video of a local sporting event in a written caption appearing underneath the video. In another instance, a local pet store sponsored a newspaper’s video livestream of animals playing at the local animal shelter. Sponsorships are an example of a means to generate revenue from video with a relatively low barrier to entry — they require little or no video production.

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**Conclusion**

This study offers evidence that video diffusion of innovation at community media Web sites in the U.S. has moved beyond the stage of gaining momentum described in prior studies (Huang, 2007). The use of video occurred at nearly half of community media Web sites coded for this study. While it was not coded, both researchers noted that the majority of sites that had video used YouTube to host it. That technology simplifies the hosting of video — which facilitates diffusion of innovation (Maier, 2000) — but limits local publishers’ ability to profit from and support the production of video. Future studies should consider how this practice enables or restrains publishers from monetizing video content. This study seems to support the observations made by Abernathy (2014) relating to the difficulty community media experience in monetizing online content. Overall, the community media Web sites described in this study lacked local video advertising. In the sample considered for this study, news outlets often relied on national advertisements inserted onto their page by YouTube, or on popup videos of national advertisements that appeared on sites owned by Lee Enterprises, Gannett, and other chains. This study raises important questions about why U.S. media companies choose to use YouTube and — at best — share digital advertising revenue rather than creating and using their own platforms and video advertising opportunities.

This study offers further evidence that U.S. community media outlets are slower to adopt to new technology (Huang, 2007; Greer and Mensing, 2004; Garrison, 2001). In the case of community media, video advertising in both online and mobile spaces simply may not diffuse as one might expect. It is possible that community media organizations may decide as a practical matter that there is simply not enough revenue available from video to make it worth developing their own hosting platform, which may relate to the tracking of audience behavior on these sites (Kalogeropoulos and Nielson, 2018). Additionally, institutional isomorphism suggests that the relatively low adoption rate might discourage community news organizations from attempting to innovate (DiMaggio and Powell, 1983). However, the limited qualitative analysis demonstrates that some community news organizations have, to varying degrees, embraced video as a means for revenue generation. Analysis demonstrates that video advertising methods used by larger media organizations are not out of reach for newspapers with smaller audiences, budgets, or staffs. Early video advertising adopters in the U.S. community newspaper world also illustrated a range of technical sophistication, from professionally edited sponsored content to basic graphics to webcam sponsorships. Given the small number of local video ads observed during this analysis, it is unlikely these early adopters are generating revenue from local video ads at a rate that would rival print or digital display advertising. However, the examples show that opportunities exist to leverage local video in a way that supplements other sources of revenue.

Future studies could consider whether the reluctance to adopt video advertising at community news Web sites is the result of a lack of technical skill or time to produce video, as is suggested in prior diffusion of innovation research (Maier, 2000; Swasy, 2016), or whether other factors, including those perhaps linked to institutional isomorphism (DiMaggio and Powell, 1983) are at play. Any of these possibilities have significant ramifications for an industry that some suggest must find new ways to connect with their audience online and also find a way develop advertising for that audience to fund news creation.
**Limitations**

This study focuses narrowly on one part of the digital information ecosystem (hyperlocal news Web sites managed by small-circulation legacy newspapers) in one country (the United States). A range of economic, social, legal, and political factors present in the U.S. shape the ways information is delivered and received by Internet users there. In other countries, those factors likely shape information ecosystems in other ways, and as a result it is likely that studies of hyperlocal digital advertising in those places could yield a range of different results. Conducting research with content analysis, as is the case with all methods, has limitations. There is no method for ascertaining at arm’s length the reasons sites make decisions regarding the publishing of videos for editorial or advertising purposes. Distinctions in video hosting platforms are not made in the present analysis; it is possible (perhaps likely) that the design and choice of particular hosting platforms (be it YouTube or a platform created by a corporate entity) can greatly enable or restrict the ability of individual news organizations or companies to monetize digital video. This study also does not account for the use of social media platforms such as Instagram, Facebook, or Twitter, which can be powerful tools for the dissemination of video (and video advertising).

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**Notes**

5. Huang, 2007, p. 89.
7. Roberts and Saint, 2015, p. 48; see also Adams, 2008.
9. Roberts and Saint, 2015, p. 50.

**References**
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P. Grabowicz, 2018. “The transition to digital journalism,” Berkeley Advanced Media Institute (5 April), at...


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