



Curbing the decline of local news by building relationships with the audience

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Abstract

In the struggle to find sustainable business models, many local news sites have turned to engaged journalism, which draws from social exchange theory and aims to build relationships with audiences. The causal impact of these initiatives is unclear, but important given that local news sites are critical information sources and face dire economic situations. In this study, 20 news sites were randomly assigned to launch a six-month engaged journalism initiative where journalists reported on audience questions or to continue their current practices. Although not a panacea, over time traffic and subscription data and a two-wave survey of audience members across the sites ($n = 3,998$) show that the initiative resulted in more subscriptions and more positive audience evaluations. The results highlight the applicability of social exchange theory to questions of local news viability and illustrate that engaged journalism can improve relationships between newsrooms and the communities they serve.

Keywords: local news, news engagement, experiment, journalism, subscriptions

A reliable and independent news media is essential to democracy. Local news media, namely those that focus on narrowly defined geographic areas, are especially important in that they disseminate public information and priorities within communities and provide a check on local authority. As Kaniss (1991) writes, “Although long overshadowed by the national media, local news has always played an important role in the way a city and region understands its problems, its opportunities, and its sense of local identity” (p. 2). Local news coverage is related to many civic and societal goods, including voter participation (Filla & Johnson, 2010; Gentzkow et al., 2011; Hayes & Lawless, 2018), public knowledge about local elected officials (Moskowitz, 2021), a sense of community and social connection (Mathews, 2022), environmentally friendly corporate behavior (Campa, 2018), and government representatives working for their constituents (Snyder & Strömberg, 2010).

Despite its importance, the local news industry is increasingly under threat from challenging economic circumstances (Matsa & Worden, 2022), online mis- and disinformation (Pickard, 2019) including “pink slime” sites that masquerade as local news (Bengani, 2019), and low levels of public trust. Although local news fares better than national news, only 44% said that they trusted news organizations in their area a great deal or quite a lot (Fioroni, 2022).

In response to these threats, the journalism industry is scrambling to identify new practices and business models to curb the decline. For newsrooms, attracting loyal local audiences is key to earning revenue from digital advertising and subscriptions (Usher, 2021). Digital and print subscriptions, specifically, are increasingly important; the Pew Research Center (2021) found that newspapers earned more from

circulations than advertising in 2020, the first time since its tracking began in 1956.

One possible solution found in existing research and contemporary practice is engaged journalism, which proposes that news sites build relationships with audiences through practices such as providing more insight into the journalistic process and responding to community concerns (Batsell, 2015; Belair-Gagnon et al., 2019; Masullo et al., 2022). Although past scholarship presents promising evidence that engaged journalism can improve community and commercial outcomes for local news sites, causal evidence is lacking.

Through a field experiment in which 20 newsrooms across the United States were randomly assigned to implement an engaged journalism initiative or continue their current practices, this study investigates engaged journalism as a strategy for affecting news organizations’ revenue streams and improving news audience evaluations. We offer the first causal evidence that engaged journalism can impact newsrooms’ bottom line and improve relationships with the communities they serve.

Local news, trust, and financial stability

The economic situation facing local news outlets is stark: circulations and revenues are declining, layoffs are mounting, and news sites have shuttered (Abernathy, 2018, 2020; Grieco, 2020). The Pew Research Center reports that newsroom employment has decreased by over a quarter since 2008 (Walker, 2021) and average daily circulations have declined sharply over the past decade (Matsa & Worden, 2022). Newspapers have seen drops in advertising revenue as well, including a decrease of 25% between 2019 and 2020 for newspapers overall (Pew Research Center, 2021) and 40% for local newspapers (Matsa & Worden, 2022). The

transition to digital news has only amplified these trends as returns on digital advertising are significantly lower than print and broadcast ads. As Picard (2016) writes, “online advertising produces only 10–15 percent of the price print advertising previously delivered and mobile advertising can barely produce 2 percent of that price” (p. 153). Platforms also disadvantage local news. National news outlets tend to dominate news search results and those looking to consume news online are more likely to encounter articles from dominant national outlets or to encounter no news at all (Fischer et al., 2020; Hindman, 2018).

Faced with financial pressures, some local newsrooms have had to cut staff and, as a consequence, local reporting has declined (Hayes & Lawless, 2021; Nielsen, 2015; Peterson, 2021a). Others have faced consolidation as independent local news ownership has dwindled (Abernathy, 2018). The largest media chains now own “a third of all newspapers, including 70% of all dailies” (Abernathy, 2022). Such consolidation can affect the amount of local content (Croteau & Hoynes, 2006) and lead to more non-local, often reproduced stories in print (Lewis et al., 2008) and on social media (Toff & Mathews, 2021), resulting in what Boczkowski and de Santos (2007) call “cross-media patterns of content homogenization” (p. 170).

In turn, democracy faces a serious threat. Without robust local news, research has shown that civic and political engagement decline (Hayes & Lawless, 2018; Shaker, 2014), people know less about politics (Peterson, 2021b), split-ticket voting declines (Darr et al., 2018), elections are less competitive (Rubado & Jennings, 2020; Schulhofer-Wohl & Garrido, 2013), municipal borrowing costs increase (Gao et al., 2020), and Congressional representatives work less on behalf of their districts (Snyder & Strömberg, 2010). The contemporary local news crisis is a story of economic and democratic liability, of community and commercial repair.

As these realities grow both more substantive and more pressing, empirical research has attended to reasons why the public/media relationship is splintering. Questions related to the viability of subscriptions and advertising models have driven an economic account (Hansen et al., 2018), while questions of trust and credibility (e.g., Nelson & Kim, 2021), news avoidance (e.g., Ksiazek et al., 2010; Toff & Kalogeropoulos, 2020), and echo chambers (Bakshy et al., 2015) have driven the public one. Although this research provides insight into economic and democratic problems facing news, most offers little to no remedy for addressing the threats. We argue that the connection between the audience and newsroom is equally social and economic. We look to the idea of engaged journalism, with its connection to social exchange theory, as a potential solution to the democratic and economic links between newsrooms and their audiences.

Engaged journalism and social exchange theory

The public journalism movement of the late 1990s and early 2000s offered an earlier approach to engaging news audiences by viewing them as “potential participants” in journalism (Rosen, 1999, p. 22). The movement saw engagement as an opportunity to gather story ideas (Lambeth et al., 1998) or convene the community to address problems (Nip, 2008). Research into public journalism during this time suggested that newsroom efforts were correlated with increased knowledge about community affairs, an enhanced sense of efficacy about participating politically, and more favorable news

organization perceptions (Lambeth et al., 1998; Massey & Haas, 2002). The movement fizzled, Min (2020) notes, because of debate over its “philosophy and practicality,” its expense, and changes in communication technology that altered news practices and audience expectations (p. 637).

Since the public journalism movement, there has been a recent surge of calls for “news engagement” or “engaged journalism” (Ferrucci et al., 2020; Lawrence et al., 2018; Lewis et al., 2014). This line of work has urged newsrooms to create opportunities for public engagement with news content (Holton et al., 2015) and journalists (Batsell, 2015; Stroud et al., 2015) through both technological means (Stroud et al., 2016) and community partnerships and events (Belair-Gagnon et al., 2019; Kligler-Vilenchik & Tenenboim, 2020).

Engaged journalism draws from social exchange theory and the premise that relationships are constructed by and maintained through an exchange of benefits (Blau, 1964; Emerson, 1976; Homans, 1958). Social exchange theory proposes that relationships change, and are changed by, exchanges in a reciprocal process (Cropanzano & Mitchell, 2005). The benefits accrued to those involved in the exchange create and build trust over time. Engaged journalism builds on the idea of social exchange by suggesting that journalism take a relational approach where a newsroom listens to the community and the community, in turn, listens to the newsroom.

As a result, engaged journalism may enhance the sense of community among audiences. As Lowrey et al. (2008) specify, journalism can build community through structural and symbolic means. It can share the “the social structures, physical spaces, and cultural symbols” that define a place while also facilitating “communication about, and negotiation over their use, meaning, and identity” among the people implicated (p. 288). Local news is particularly well-situated to capitalize on and build community because it can address both structural and symbolic elements. For instance, newspaper readership has been connected to stronger community ties by reinforcing and constructing social identity (Mersey, 2009) just as the absence of local news can lead to a decline in sense of community and physical and social connection (Mathews, 2022). Local news engagement may be especially consequential for establishing community identity. More journalist engagement with readers has been linked with a stronger sense of community, even when that engagement is exclusively online (Meyer & Carey, 2014). The connection among local news, engagement practices, and community highlights the social part of the exchange between newsrooms and audiences and suggests a mechanism through which relationships can be constructed and/or maintained.

Engaged journalism also builds on the idea proposed by Cook and Rice (2003) that economic exchanges, in our case subscription payments and site traffic that yields advertising revenue, can be intertwined with social exchanges. In the context we explore, both the newsroom and the community gain external (e.g., money, insight, etc.) and internal benefits (e.g., increased self-efficacy, improved attitudes toward the newsroom). This approach sits in contrast to a more transactional style, which positions journalists as providers of information that the audience passively consumes (Lawrence et al., 2018). While some past work offers evidence that engaging the public in journalism may help improve the quality of coverage as well as audience attitudes toward and investment in the affiliated news organization (see Holton et al., 2015; Massey &

Haas, 2002), substantial evidence for any concurrent economic benefit to newsrooms is less clear (although see Wenzel [2019] for evidence in one rural context). Research outside of the news industry, however, offers strong evidence that social exchange in the form of both buying intentions and customer loyalty, for instance, does take place between consumers and businesses online (e.g., Cheng et al., 2020).

The idea of engaged journalism has controversial elements. When audiences have a role in what news organizations cover, for example, critics worry that public affairs content will be replaced by celebrity and soft news (Lee & Tandoc, 2017). The norms of separating editorial from advertising interests also are threatened by engaged journalism. Traditionally, allowing business or audience concerns to affect the editorial process has been considered taboo. Many engaged journalism initiatives give the public some editorial control, whether letting them write comments that appear alongside news articles or involving them more directly in determining which stories to cover. Some forms of engaged journalism, like tracking web traffic (Lawrence et al., 2018), have direct links to business outcomes. Over the past several decades, however, as digital metrics have enabled sophisticated analyses of audience behavior and news sites search for revenue, the separation between news and business has lessened (Cornia et al., 2020; Nelson, 2021). Audience data now frequently drive news business and content decisions (Hindman, 2018; Nelson, 2021; Vu, 2014).

Although the growing prominence and practice of engaged journalism has been addressed by previous research (e.g., Batsell, 2015), the effectiveness of the approach as a tool for commercial and community benefit requires additional analysis. While past research documented correlational evidence that public journalism related to positive outcomes for both audiences and newsrooms (Lambeth et al., 1998; Massey & Haas, 2002; Nichols et al., 2006; Thorson et al., 2019), the methodologies were not intended to capture causal relationships. As a result, to our knowledge, there exists no conclusive, causal evidence that engagement between the news and the audience can help to address the economic and democratic sides of the contemporary local news crisis.

Examining causality is particularly important here for two reasons. For one, it is possible that the types of people who participate in engaged journalism initiatives are those who already have higher community affairs awareness, higher political efficacy, and more favorable impressions of the media organization sponsoring the initiative. After all, past research has found that these types of people are more likely to use news and generate content online (Kaufhold et al., 2010; Leung, 2009; Moy et al., 2004). Past correlational work could merely document these relationships, as opposed to a causal effect of engaged journalism. Second, the financial situation facing many local news sites means that they have little margin for error in adjusting their business models, many of which now include engaged journalism efforts. Sustaining or dedicating additional resources to engaged journalism has financial implications. Causal investigations of engaged journalism are crucial for newsroom decision-making.

In this study, we focus on establishing causal evidence for how engaged journalism affects not only newsrooms, but also the communities they serve. Concentrating on engaged journalism as a digital interaction between news sites and their audiences, we analyzed whether an initiative giving audiences a say in what the news covers can help build relationships

with community members and affect business outcomes. Importantly, our intervention involves newsrooms that have undergone consolidation under a parent company, allowing us to administer the same intervention across multiple newsrooms while holding other variables as constant as possible, and with implications that speak to news consolidation.

We had several hypotheses about the effects of this intervention. The objective of engaged journalism initiatives like this is to improve the news site's bottom line, as well as the relationship between the audience and the newsroom, as predicated on dynamics of social and economic exchange (Cook & Rice, 2003; Cropanzano & Mitchell, 2005). As Min (2020) notes, "news organizations do have incentives to seek out audience engagement to improve their economic sustainability" (p. 637). To analyze engaged journalism's impact on economic outcomes, we look at both new subscriptions, those that are initiated by people who did not previously subscribe, and subscription renewals, those that result from subscribers whose subscription period ended and who take the opportunity to renew. We also examine page views and return visits, both critical components of earning digital revenue from advertising (Pew Research Center, 2021; Usher, 2021), with the former representing more temporary engagements and the latter more sustained relationship building. We propose that the intervention news sites, those adopting the engaged journalism initiative, will see growth in these business outcomes relative to the control sites that maintained their typical habits.

H1: The intervention sites will see an increase in (a) new subscriptions and (b) subscription renewals relative to the control sites.

H2: The intervention sites will see more traffic in the forms of (a) return visits and (b) page views compared with the control sites.

Past work has examined whether newsroom initiatives can influence perceptions of the news. This work indicates that adding elements to signal trust can boost evaluations of a newsroom (Curry & Stroud, 2021; Masullo et al., 2022), but not always (Karlsson et al., 2014). In general, more successful initiatives seem to involve more substantial changes, such as concurrently adding multiple transparency elements, some of which are novel (e.g., citations and explanations of the reporting process, Curry & Stroud, 2021), as opposed to more subtle tweaks, such as adding single elements (e.g., article corrections, Karlsson et al., 2014). In this vein, our intervention makes a substantive change through a well-publicized initiative for audiences to submit questions to the newsroom (see Schmidt & Lawrence, 2020, who conduct a qualitative analysis of newsroom use of Hearken, the same platform we analyze here).

Social exchange theory proposes that intervention sites will develop a stronger connection with their audiences because the engagement initiative establishes a relationship with the news audience. Here, we look at perceptions of news efficacy, such as whether the public believes it has a say in what the news covers; responsiveness, such as whether people believe that the news site responds to community questions; and engagement, such as whether people perceive that the news site cares about the community. We hypothesize:

H3: The intervention site audiences will (a) perceive their news efficacy as higher, (b) assess the news sites as having

greater responsiveness, and (c) evaluate the news sites as having greater engagement compared with the control site audiences.

In this study, we focus on news sites associated with local newspapers in different markets across the United States. Newspapers are particularly important to study because they continue to be the driver of local news in their communities relative to other forms of media (Mahone et al., 2019; Project for Excellence in Journalism, 2010). Newspapers also have suffered greater staffing and audience losses compared with other forms of news like television (Walker, 2021). They also are increasingly reliant on digital forms of revenue, which is implicated in our study's design (Pew Research Center, 2021).

Method

To test these ideas, we partnered with 20 U.S.-based local news sites owned by the same parent company and affiliated with local newspapers. We used stratified random assignment to assign news sites to either launch an engaged journalism initiative (intervention news sites) or to continue with their current engagement practices (control news sites). We stratified the sites based on news site size, as newsrooms serving larger audiences have more traffic and subscriptions. In consultation with the parent company, we divided the 20 participating news sites into three strata based on their circulation and web traffic: large (4 sites), medium (10 sites), and small (6 sites). Within each stratum, we randomly assigned half of the sites to participate in the engagement intervention and half to continue with their current engagement practices. To our knowledge, none of the control sites implemented anything similar during the study period.

Engagement intervention

Intervention news sites asked members of the public to submit questions that they wanted journalists to answer about their community. The news sites then curated the top questions and asked the public to vote on their favorite. The intervention sites reported on questions receiving the most votes, inviting the person who submitted the original question to take part in the reporting process, and then published the resulting articles. In practice, few question submitters participated in this step. The public was then asked for additional questions, restarting the process. To facilitate this cyclical interaction, the intervention news sites received access to Hearken, a digital platform allowing community members to submit questions and vote on which of the submitted questions should be investigated. As is standard practice for the platform, intervention news sites received training on using the Hearken technology, access to the platform, and access to a consultant who helped the sites implement the tool.

To ensure intervention consistency, each news site in the intervention group was given a set of requirements: write two to three stories based on audience questions per month, conduct voting rounds each month, and contact each question-asker at least once before reporting and at least once before publishing. Each intervention news site launched and announced their initiative between June 20 and July 1, 2018 and all sites published their first story as part of the initiative by the end of July. The study period concluded at the end of the year. Intervention news sites published, on average, 26 stories

($SD = 10.12$) based on audience questions across the intervention period.

To publicize the initiative, the intervention sites launched new landing pages that included information about the initiative, provided the public with details about how to submit and vote on questions, and archived reporting as a result of the initiative. Intervention news sites were able to choose their own names for the initiative, tailored to their individual communities, as well as the design of individual landing pages for the initiative on their websites.

We monitored newsroom progress throughout the project. The intervention sites completed training on how to use the platform and engaged in goal-setting activities prior to the launch. They had weekly check-ins for the first month, and bi-weekly or monthly check-ins thereafter. The news sites were generally eager to use the platform, although they were not without concerns (see the [Supplementary Appendix](#) for a detailed summary of the intervention and its implementation). The topics addressed in the reporting varied. Of the 263 articles produced as part of this intervention, coded to follow the "critical information needs" identified by Friedland et al. (2012), just over a third were about civic information, such as local history and recreation, 18% about economic development, 12% about environment and planning, and 10% about transportation systems. At the close of the study, the parent organization provided us with subscription and traffic data to test the intervention's effect.

Survey

We fielded a survey of audiences for the 20 sites in the month before the intervention began ($n = 22,287$). The survey was administered by each news site using methods such as including a link to the survey on social media, in newsletters, and via email. Respondents were asked to evaluate the news brand, the community, how represented they felt by the news site, and the news site's engagement efforts. The surveys were identical for each of the news sites, with the exception of substituting the relevant site's name throughout the questions. At the end of the first survey, respondents were asked to provide their e-mail address for a follow-up survey; 12,254 did so. Approximately six months after the intervention launched, we re-contacted the respondents for a follow-up survey that contained the same questions as the pre-intervention survey. In total, 3,998 people completed both survey waves (1,703 from the intervention sites and 2,295 from the control sites). The by-newsroom sample size for those completing the pre- and post-survey waves varied between 27 and 484, with an average of 200 respondents per site.

The resulting sample was 59% male, 67% above the age of 65, 73% having a college degree or more, and 97% white, non-Hispanic. The sample was not representative of news audiences, and those who completed both waves were slightly older, more male, and more educated than those who completed the pre-wave. The treatment and control sites and respondents, however, were generally comparable (see more detail in the [Supplementary Appendix](#)). An omnibus test, conducted using a logistic regression predicting whether the survey respondent responded to the survey from a control site or an intervention site, was significant ($\chi^2(6) = 31.59, p < .01$); however, the Nagelkerke R -square was only 0.01. There were slight differences between the control and treatment groups based on gender and age; the results are the same regardless of whether we control for these factors.

Dependent variables

Subscriptions

Subscription data were collected using Piano, a digital analytics platform, for each of 222 days beginning May 25, 2018, and continuing through the end of the year. The data were available for 19 of the 20 sites ($n = 4,218$), with one medium-sized site in the intervention group using a different, and non-comparable, system to record subscriptions. On average, these sites saw 18.77 renewals each day ($SD = 20.13$, Range = 0–188) and 2.27 new subscriptions ($SD = 3.01$, Range = 0–35).

Traffic

Site traffic, including return visits and page views, came from Google Analytics. We have 580 days of data between June 1, 2017 and January 1, 2019 across the 20 sites ($n = 11,600$). Return visits represent visits by the same device to the site within two years of the last visit. The sites experienced a logging issue with their page view data between December 19 and December 28, 2018; these dates were excluded from the analysis. On average, sites saw 17,240 daily return visits ($SD = 8,046$, Range = 2,217–107,099) and 146,677 daily page views ($SD = 107,759$, Range = 19,259–4,730,067).

Survey measures

Survey respondents were asked to evaluate the news brand, the community, how represented they felt by the news site, and the news site's engagement efforts, all Likert-type items from *strongly disagree* (1) to *strongly agree* (5).¹ The items were modified versions of items from research on media credibility and trust (Gaziano & McGrath, 1986; Kioussis, 2001) and site responsiveness and reciprocity (Shiau & Luo, 2012).

We adapted external efficacy measures (e.g., Pollock, 1983) for the purpose of understanding whether people believed that they could influence the news, in the same way that past work has adapted internal efficacy measures about the belief that one has the capacity to understand news and political information (e.g., Park, 2022; Tedesco, 2007). Respondents were asked: "People like me can influence the coverage at [News site]" and "People like me don't have any say in what [News site] does" (reverse-coded). The two items were significantly correlated and we averaged them to form a measure of external news efficacy (pre-wave $M = 2.86$, $SD = 0.95$, $r = 0.58$; post-wave $M = 2.89$, $SD = 0.96$, $r = 0.60$).

To measure responsiveness, respondents were asked two questions: "[News site] is responsive to community questions" and "I believe that [News site] will invite and respond to questions from the community in the future." These items were strongly correlated and averaged (pre-wave $M = 3.69$, $SD = 0.95$, $r = 0.79$; post-wave $M = 3.71$, $SD = 0.98$, $r = 0.80$).

To measure engagement, we asked respondents a series of six questions such as "[News site] is concerned with my interests." These items formed a reliable measure of engagement and were averaged (pre-wave $M = 3.44$, $SD = 0.80$, Cronbach's $\alpha = 0.89$; post-wave $M = 3.45$, $SD = 0.82$, Cronbach's $\alpha = 0.90$).

We conducted a confirmatory factor analysis including all survey items in a three-factor model and allowing all exogenous latent variables to correlate. Based on typical standards of CFA model fit (Hu & Bentler, 1999; Marsh et al., 2004), the three-factor model was adequate (CFA = 0.97,

TLI = 0.96, RMSEA = 0.08). The three factors were correlated (0.58–0.78).

Results

Subscriptions

Figure 1 displays the data on new subscriptions over time, averaged across news sites by intervention and control group. Although averaging across sites obscures the magnitude of the effect for any particular newsroom, the figure does suggest that the engaged journalism initiative increased the number of new daily subscriptions at the intervention sites relative to the control sites. The figure also shows some shared patterns in subscriptions, such as a spike across sites on November 26, when many of the sites ran specials on Cyber Monday.

To examine whether the intervention had a statistically significant effect on the number of daily subscriptions (H1), we estimated a negative binomial regression. We follow recent methods used in criminology, where scholars evaluate policy changes that occur over time across various states (Moody & Marvell, 2020). The critical difference between our study and the typical application of the method in criminology is that our treatment is randomly assigned, whereas crime policy changes are not. In our model, the critical independent variable is whether the news site is an intervention or control site. The basic form of the model is: $y_{it} = B_1x + B_2z_t + B_3z_t + \varepsilon_{it}$.

In the model, y_{it} represents the number of subscriptions for news site i on day t , x is 0 for all days prior to the intervention for the intervention news sites and for all days for the control news sites and is 1 for all days after the intervention begins for the intervention sites, z_t is a vector of fixed-effect dummies for the news sites, and z_t is a vector of fixed-effect dummies for each day. All analyses also employ clustered standard errors by news site.

Consistent with the figure, new subscriptions were higher for the intervention sites after the engagement initiative began relative to the control sites. The effect of the intervention was statistically significant (see Table 1, $B = 0.77$, $SE = 0.24$, $p < .001$). The average marginal effect of the intervention was 1.75 ($SE = 0.54$), indicating that the intervention resulted in an increase of 1.75 new subscriptions each day for intervention news sites compared with the control sites, all else equal. Given that sites had a daily average of 2.27 new subscriptions, this is a notable uptick, although caution is warranted in generalizing this number to specific sites as there was considerable variation in subscription rates ($SD = 3.01$, Range = 0–35).

The result holds across a number of robustness tests. First, we used jack-knife robustness testing, removing each news site from the analysis individually and rerunning the results. This is an important test for our research design; given the number of sites involved, one concern is that the results are driven by one site. Across the models, the results were consistent; intervention sites saw more new subscriptions after they began the engagement initiative regardless of whether any site was removed from the analysis, offering additional support for our first hypothesis (Range $B = 0.62$ – 0.87 , $t = 2.80$ – 3.61 , $p = .004$ – $.020$, see more detail in the Supplementary Appendix). We also conducted a placebo analysis, recommended in situations where there are a small number of intervention sites (Moody & Marvell, 2020). To do this, we replaced the treatment variable with a random variable that

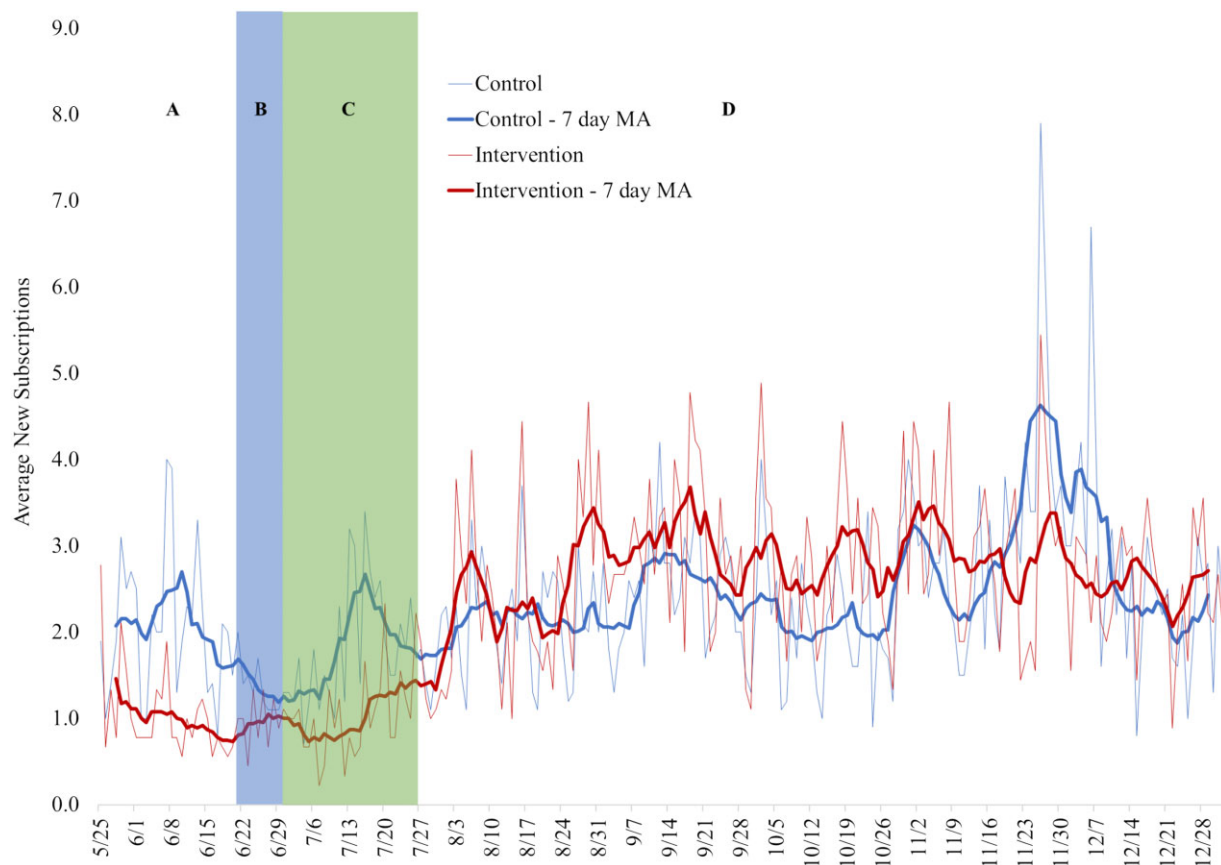


Figure 1. (A–D) Average daily new subscriptions by control and intervention news sites. The figure displays daily and 7-day moving average (MA) new subscriptions (A) before the intervention, (B) during the announcement and launch, (C) when the first articles were published, and (D) after all sites had launched and published articles from the intervention.

Table 1. The effects of the engagement intervention on traffic and subscription metrics

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	Cox and Snell <i>R</i> ²
New subscriptions	0.77	0.24	3.26	.007	0.65
Subscription renewals	0.10	0.08	1.36	.42	0.89
Return visits	0.11	0.08	1.31	.41	0.97
Page views	−0.07	0.08	0.85	.57	0.93

Note: Values are coefficients for the intervention (B_1).

assigned the intervention to half of the news sites during the same date range that the intervention occurred. As recommended, we repeated the analysis 1,000 times, sorted the *t*-statistics that resulted, and then considered the 975th value to be the adjusted critical value. Doing this analysis, the adjusted critical value is 2.07. All of our *t*-statistics exceed this value, providing further support for the idea that the engagement initiative increased subscriptions.

Although the intervention affected new subscriptions, it did not affect subscription renewals. Using the same statistical model, there were no differences between the intervention and control sites in the daily number of subscription renewals (see Table 1, $B = 0.10$, $SE = 0.08$, $p = .42$). The results support H1a, but not H1b.

Traffic

H2 suggested that the engagement initiative would affect traffic metrics. We used the same negative binomial model

specification with fixed effects for each news site and day and clustered standard errors to evaluate the effect of the intervention on news site traffic. The analysis revealed that the intervention did not have an effect on page views (see Table 1, $B = -0.07$, $SE = 0.08$, $p = .57$), nor did it have an effect on return visits (see Table 1, $B = 0.11$, $SE = 0.08$, $p = .41$), offering no support for H2a and H2b.

Audience evaluations

Turning to the survey, there is evidence that the intervention changed audience evaluations of the news sites, as suggested by H3a–c. Mean audience attitudes for those who answered the survey both before and after the intervention are shown in Figure 2A–C.

As shown in Table 2, analysis of variance (ANOVA) analyses show that prior to the intervention, audiences at the control and intervention news sites responded similarly to questions about news efficacy ($F(1, 3800) = 1.41$, $p = .23$), responsiveness ($F(1, 3800) = 1.78$, $p = .18$), and engagement ($F(1, 3800) = 1.70$, $p = .19$). After the six-month intervention, however, those at the intervention sites rated their news efficacy higher ($F(1, 3657) = 7.97$, $p = .005$), found the news site more responsive ($F(1, 3696) = 30.73$, $p < .001$), and felt that the news site was more engaged in the community ($F(1, 3680) = 14.60$, $p < .001$). As shown in Table 2, the findings hold if we run the post-wave analysis controlling for the respondent's pre-wave attitudes or if we use repeated measures ANOVA.

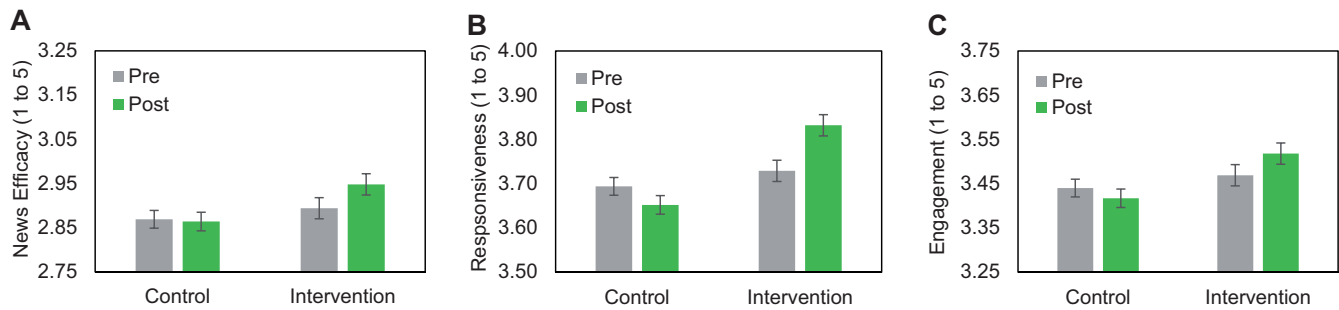


Figure 2. (A–C) Audience attitudes before and six months after each intervention. Measures from 1 to 5. Means and 95% confidence intervals are shown for each condition. Intervention news site audiences reported greater (A) news efficacy, (B) responsiveness, and (C) engagement from pre to post compared with control news site audiences.

Table 2. The effects of the engagement intervention on audience attitudes

	Engagement	Responsive	Efficacy
Pre-wave, control versus intervention	$F(1, 3800) = 1.70, p = .19$	$F(1, 3800) = 1.78, p = .18$	$F(1, 3800) = 1.41, p = .23$
Post-wave, control versus intervention	$F(1, 3680) = 14.60, p < .001$	$F(1, 3696) = 33.33, p < .001$	$F(1, 3657) = 7.97, p = .005$
Post-wave, control versus intervention controlling for pre-wave	$F(1, 3677) = 19.47, p < .001$	$F(1, 3693) = 41.27, p < .001$	$F(1, 3656) = 8.35, p = .004$
Repeated measures, intervention \times wave	$F(1, 3678) = 14.40, p < .001$	$F(1, 3694) = 28.71, p < .001$	$F(1, 3657) = 4.99, p = .026$

Notes: The analyses were constrained to those completing both the pre-intervention survey and the six-month post-intervention survey and include age and gender as covariates. Results do not vary if age and gender are excluded.

As with the subscriptions analysis, we wanted to ensure that the results could not be explained by what happened at a single site. Using the same jack-knife robustness testing strategy, we eliminated survey respondents from each newsroom one at a time and re-ran the results. Across all three measures, the results continued to hold (Range for efficacy $F(1, 3526) = 5.54, p < .05$ to $F(1, 3484) = 12.44, p < .001$; for responsive $F(1, 3446) = 25.48, p < .001$ to $F(1, 3247) = 54.55, p < .001$; and for engagement $F(1, 3459) = 12.95, p < .001$ to $F(1, 3504) = 24.88, p < .001$, see more detail in the [Supplementary Appendix](#)). These findings support H3; audience attitudes were more positive after the engagement initiative at the intervention sites relative to audience attitudes at the control sites.

Discussion

These results offer the first causal evidence that engaged journalism can affect the economic viability of local news sites and local news sites' relationships with the communities they serve. Although previous research proposed that engaged journalism could strengthen the tie between local news sites and their audiences (Massey & Haas, 2002; Rosen et al., 1997), causal evidence has been lacking. Following six months of an engaged journalism initiative at their local newspaper, audience members had more favorable perceptions of the newspaper and a stronger sense of the news sites' role in the infrastructure of their community. In turn, intervention sites saw more new subscribers than control sites, a finding that held across a variety of robustness checks. These results suggest that engaged journalism can connect newsrooms to local communities and begin to address business needs for local newsrooms.

As with other research on engaged journalism, our results point to the relevance of social exchange theory and the mutual exchange of goods or resources (Emerson, 1976;

Lawrence et al., 2018). Practitioners and scholars alike have called for greater news engagement, where newsrooms create opportunities for public engagement with news content and journalists, particularly through technological means (Batsell, 2015; Lawrence et al., 2018; Nelson, 2021), as a path toward reciprocity and building a paying audience. Our evidence suggests that their calls are warranted. By providing a service that answers questions posed by audience members, audiences are more likely to reciprocate through subscriptions.

The outcomes from the social exchange documented here, more positive evaluations of the news site and more new subscribers, while not directly benefiting democracy, are linked to a number of outcomes that are pro-democratic. For instance, communication infrastructure theory finds that engagement in local information networks and civic journalism relates to higher rates of civic engagement (Kim & Ball-Rokeach, 2006) and online civic participation (Lee et al., 2022). Similarly, research on local engaged journalism notes a link between news engagement and civic and political participation intentions as well as increased knowledge of local issues (Tenenboim & Stroud, 2020). People with positive perceptions of news media also tend to have higher levels of political efficacy (Pinkleton et al., 2012; although they may also have higher levels of apathy), just as those given access to a news subscription may experience an increase in political knowledge (Lecheler & de Vreese, 2017).

Notably, engaged journalism did not influence traffic metrics and subscription renewals. Page views were unaffected by the intervention, possibly because they are more difficult to change systematically. They can vary dramatically from day-to-day due to factors outside of a news site's control, such as whether a popular blog shares an article link. That new subscriptions differ between intervention and control sites and not page views suggests that engaged journalism holds the potential for building audience relationships that continue over time, rather than fizzle out after a brief interaction. These

results further highlight the role that local news and engagement practices play in constructing and/or reinforcing an overall sense of community (Matthews, 2022; Meyer & Carey, 2014) that is not dependent on momentary interactions but is an over time negotiation and shared social construction. Engaged journalism also did not affect existing relationships as indicated by subscription renewals or return visits. For subscription renewals, those who had already decided to support local news elect to continue or cancel their subscription for reasons other than engagement initiatives, it appears. These results sit in line with other evidence that engaged journalism may influence new subscriptions (Wenzel, 2019) and with research that suggests subscription renewals are subject to factors such as the visibility of the subscription or its integration into existing habits (Groot Kormelink, 2023). The absence of an effect for return visits also suggests that the main effect of the initiative is to turn visitors into paying audiences, as opposed to systematically increasing their site visits.

The increase in subscriptions among those who were not existing subscribers is notable, however, because this is a desirable metric for financially strapped newsrooms. Although the magnitude of the effect is unlikely to rescue local news, it does show that engaged journalism can move local news in the right direction—toward increasing their bottom line and improving relationships with the community.

The potential for engaged journalism to enhance the viability of local news is not an effect to be taken lightly. Local newsrooms face financial crises across the country, especially amidst a global pandemic that has simultaneously hurt the sustainability of local news production and increased the value and necessity of local information (Radcliffe, 2020). Our results encourage local newsrooms to engage with their audiences to the immediate benefit of their business and to the long-term benefit of their community and their mutual relationship. And, as newsrooms increasingly consolidate, with consequences for local coverage (Croteau & Hoynes, 2006; Lewis et al., 2008; Toff & Mathews, 2021), engaged journalism practices, like the one tested here, may offer a way to establish a connection between the newsroom and local concerns.

Theoretically, the findings also offer support for the Cook and Rice (2003) contention that social exchange can have elements of economic exchange. As they propose, the exchange is not purely economic. Newsrooms benefit from the financial boost and the initiative also allows them to learn about the community they serve through the questions asked by community members and the reporting done in response to the community-selected questions.

Although we offer robust evidence for engaged journalism, our scope was inherently limited. We examine one form of engaged journalism, but many other strategies are possible. Further, although we focus on audience behavior and perceptions, recent research suggests that engagement may also directly benefit journalists by helping to construct a realistic and relatable picture of the audiences they serve (Nelson, 2021). The information co-constructed with local journalists and their audiences through engaged journalism likely serves informational voids that we are unable to fully document here. Our survey measures also tap into both whether people noticed the intervention and their assessment of it; additional dependent measures that further tease apart these two aspects would be beneficial (see the [Supplementary Appendix](#)). The

sample also was not representative of news audiences in general, leaving unanswered questions about how efforts like this affect diverse audiences. It is also worth exploring how generalizable these results are. We examined a particular form of engaged journalism at newspapers of one large media company in the United States.² This allowed us to implement the same treatment across newsrooms while holding other variables as constant as possible, but inherently limits our ability to generalize these results to other types of newsrooms. We also analyzed newspapers, as opposed to television news, despite the fact that television remains a popular source for local news (e.g., Wells et al., 2021). What benefits might accrue to television news stations in terms of viewership are left to future research. Likewise, evaluating whether similar patterns appear in other contexts (e.g., the Israeli WhatsApp group identified by Kligler-Vilenchik & Tenenboim, 2020) would be a beneficial next step to this research.

Conclusion

Democracy depends not only on local news media for accountability and information transmission, but also on a strong relationship and sense of dependence between local audiences and local news. As news sites and communities face financial and informational crises that have democratic and health consequences (Campa, 2018; Filla & Johnson, 2010; Gentzkow et al., 2011; Hayes & Lawless, 2018; Moskowitz, 2021; Snyder & Strömberg, 2010), and as local news sites are driven under (Abernathy, 2020; Grieco, 2020), the evidence in this study offers a way forward. Engaged journalism presents a worthwhile strategy for building sustainable and symbiotic relationships between local news and the communities they serve.

Supplementary material

[Supplementary material](#) is available online at *Journal of Communication* online.

Data availability

The data underlying this article will be shared on reasonable request to the corresponding author.

Conflicts of interest: None declared.

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Notes

1. Other related variables measured on the survey, such as trust and representation, were not significantly affected by the intervention. These results are detailed in the [Supplementary Appendix](#).
2. In the [Supplementary Appendix](#), we evaluate whether there is any apparent variation by newsroom size finding, if anything, smaller newsrooms saw more change.

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