

# Local, Social, and Online: Comparing the Perceptions and Impact of Local Online Groups and Local Media Pages on Facebook

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With the steady closure of local newspapers, many communities have been left without reliable news and information. Technology platforms are attempting to fill the void by providing community forums or neighborhood apps where users read and share local information. Today, Facebook groups (which include buy-and-sell, local interest, or community discussion groups) are one popular form of digital local information sharing. This study investigates how local online groups are perceived compared with more traditional local news outlets, and compares the pro-community benefits provided by each. Based on prior theoretical contributions, we developed a framework for measuring the benefits of local information presence on individual-level pro-community attitudes. In our experiment ( $N = 170$ ), we asked frequent Facebook users living in four U.S. cities (Boston, Columbus, Nashville, Seattle) to start following local news pages or local online groups on Facebook, and compare their perceptions of quality and changes in pro-community attitudes. We find that while posts from local news pages are perceived to be of significantly higher quality than posts from local online groups, neither led to significant changes in pro-community attitudes during our study period. We discuss implications for the future study of local news in a changing media ecology.

## 1 INTRODUCTION

Local journalism offers distinct benefits to communities, such as a sense of belonging, more local knowledge, and increased civic participation [8, 14]. Despite the benefits and the pressing need for reliable local information, the local media ecology in the U.S. is unstable and undergoing fundamental change. Over one fourth of local newspapers in the U.S. have shut in the last 15 years, leaving many communities without reliable news [1].

At the same time, there is more local information available online [17], both from local media (e.g. [12]) and from non-media sources like local governments, non-profits, and city services (e.g. [20]). Such local information is increasingly also available on neighborhood groups on platforms like Nextdoor or Facebook [18]. In this work, we study Facebook neighborhood groups, “*local online groups*” as defined by López and Butler [13].

Early explorations indicate that local Facebook groups may provide some of the same advantages offered by local media organizations. De Meulenaere et al. [3] find that posts made in hyperlocal Facebook groups may contribute to an “ambient news stream” comparable to hyperlocal news media. Studies among specific communities have found that social media plays a key role in satisfying community information needs, with neighborhood Facebook group being a central player [4, 6, 18]. These explorations indicate that digital communities may fill some gaps created by the closure of local news organizations, but further work is needed to understand how people perceive these online spaces and how they may impact communities.

How can we understand the benefits provided by different channels of local information? In this study, we aim to understand whether online community groups may contribute to the same pro-community attitudes as local journalism.

## 2 FRAMEWORK AND HYPOTHESES

Drawing on prior work, we suggest a new individual-level framework for outcomes, in terms of community attitudes, of local information exposure. A precursor in our framework to attitude change is understanding how different local information sources are perceived in digital environments. Source impact on credibility is particularly interesting in the

local context, as trust is generally higher for local content [7]. Our research question (RQ) focuses on measuring the perceived quality of information from local news pages vs local online groups.

We also seek to understand how the source of local information impacts individual-level community outcomes. The framework's suggested outcomes are community *self-perceived knowledge*, *attachment*, and *attitudes towards civic engagement*, which have all been tied to local news presence [8, 10, 19]. These concepts have been developed and externally validated [5, 11, 15] and they capture how *informed*, *attached*, and *responsible* for the community an individual feels at a point in time. Our attitudes-based framework provides a first indicator of the impact local information may provide, and potentially allows for more rapid research of this impact. Given the general agreement in the literature that exposure or local news presence is correlated with pro-community attitudes, we hypothesize (H1) that one or more attitudes towards community will increase over time as a result of following local news pages or joining local online groups on Facebook, but not when joining non-local online groups (control). Based on prior work [2, 15, 16], we additionally expect that increased exposure and higher perceived quality of local information will be positively associated with an increase over time in positive community attitudes. Finally, length of time in a community and higher prior exposure to local information may decrease potential change in community attitudes (based on [10]).

### 3 METHOD

We test our hypotheses using an online field experiment. Participants were randomly assigned to one of three conditions (local news pages, local online groups, or control) and were surveyed twice (pre-treatment, and 4-6 weeks post-treatment). Participants in the local news pages condition were asked to “like” three local news Facebook pages from a list of publishers in their area. Participants in the local online group condition were asked to join three local online groups from a list of groups in their area. Participants in the control condition were asked to join three hobbyist Facebook groups which had no relation to their local area (for example, wildlife photography). All participants were presented with a curated list of four to eight options for which groups or pages to follow so that they could manually select those which appealed most to them. We conducted this study in Boston, Columbus, Nashville, and Seattle. The four cities were selected to be diverse, and large enough to enable recruitment, yet small enough to engender community attitudes.

We followed strict criteria for selecting the Facebook groups and pages that we asked participants to join or “like.” All selected groups had to have at least 1,000 members, could be public or private, and averaged between 100-1,000 posts per month. The local online groups contained the city name in the title, and mentioned terms like “neighborhood,” or “community,” but no specific interests. For selecting the local news pages, we chose the most popular “official” local news pages in an area. For the control condition, we identified a set of hobby interests that were not locally specific.

#### 3.1 Measures

We surveyed the participants at the start (T1) and end (T2) of the experiment. We collected general demographic information, length of residence in current city, and prior news habits.

We measured our dependent variables (the participant's attitudes towards their community) during the pre-measure and post-measure surveys. All community attitude items were measured on a 7-point scale, and averaged if more than one item was collected for a community measure. We measured community attachment using the three-item scale proposed by Kasarda and Janowitz [11]. We measured the participant's perception of community knowledge through the question “overall, how informed would you say you are about news and current events in *city of residence*?”. Other studies use similar items to assess feelings of being informed [15]. We collected participant attitudes towards civic engagement in their local community using the eight-item scale proposed by Doolittle and Faul [5].

At the post-measure, we collected additional information to measure the perceived quality of treatment content after exposure. We asked participants to confirm they were still following the treatment groups or pages, and collected perceived exposure frequency and interactions. To measure perceived quality, we asked participants to rate the posts they saw from the groups or pages on a 5-point scale for *relevance*, *interest*, and *trustworthiness*. These items were compiled into a mean index which we used as a general indicator of perceived quality for analyses.

### 3.2 Participants

We recruited participants via Facebook ads, targeting adult audiences that lived in one of the four cities. Participants were entered in a lottery in which 10 participants won \$100. We pre-screened respondents to only include frequent Facebook users to maximize treatment exposure. Of the 358 participants who completed the pre-measure survey, 170 provided valid responses to the post-measure survey and are included in our final analysis.

Our participant pool is fairly homogeneous. Most participants (55.3%) had lived in their current city of residence longer than twenty years. Participants skewed older, richer, more educated, and whiter than the diverse cities we recruited from. 59 participants were assigned to local news pages, 61 to local online groups, and 50 to control groups.

Our pre-measure responses indicate that participants engaged strongly with local content on Facebook. At the pre-measure, most participants indicated being part of a local online group on Facebook (102 participants, 60%) and/or following a local news page on Facebook (97 participants, 57.1%). Surprisingly, the Pearson correlation coefficient between following a local news page and being part of a local news group was not significant,  $r(80) = 0.13, p = 0.26$ .

Most participants reported seeing treatment content frequently on their feed. A majority of participants saw the treatment pages or groups at least a few times per week: 68% in the control condition, 55.9% in the local news pages condition, and 50.8% in the local online groups condition. Participants were highly engaged with the treatment groups and pages, with over one third reporting they either commented on posts, shared posts, or posted to groups themselves.

## 4 RESULTS

Our research question concerns how post quality is perceived by local information source on Facebook. Figure 1 shows how the participants in each condition (columns) rated the information they were exposed to based on *relevance* (top), *interest* (middle) and *trustworthiness* (bottom). We used Kruskal-Wallis rank sum tests to identify differences between conditions. Statistical tests showed that participants rated posts from local news pages as significantly more *interesting*, *relevant*, and *trustworthy* than the control condition. We also find that local news pages are rated as significantly more *interesting* and *trustworthy* than the local online groups condition, though the difference is less stark than between local news pages and control groups. When it comes to trust, we find that significantly more people found posts from the local news pages to be trustworthy than either of the two other groups, and significantly more people found posts from local online groups to be trustworthy than the control groups.

H1 states that following a local news page or a local online group will have a positive effect on one of our community attitudes. To test our hypothesis, we ran three one-way ANCOVAs to predict community attitudes at T2, controlling for the relevant community attitude at T1. We find no significant effect of treatment condition on community attitudes at T2 for any community attitudes (self-perceived knowledge:  $(F = 2, 167) = 0.22, p = 0.8$ , attachment:  $(F = 2, 167) = 1.78, p = 0.17$ , civic attitudes:  $(F = 2, 167) = 1.62, p = 0.2$ ). We thus do not reject the null hypothesis. We perform a linear regression with additional variables, and find that those who lived in a city longer had a significantly larger change in the *civic attitudes* measure. We do not find any impact of perceived quality of posts, exposure frequency, or prior news habits on community outcomes.

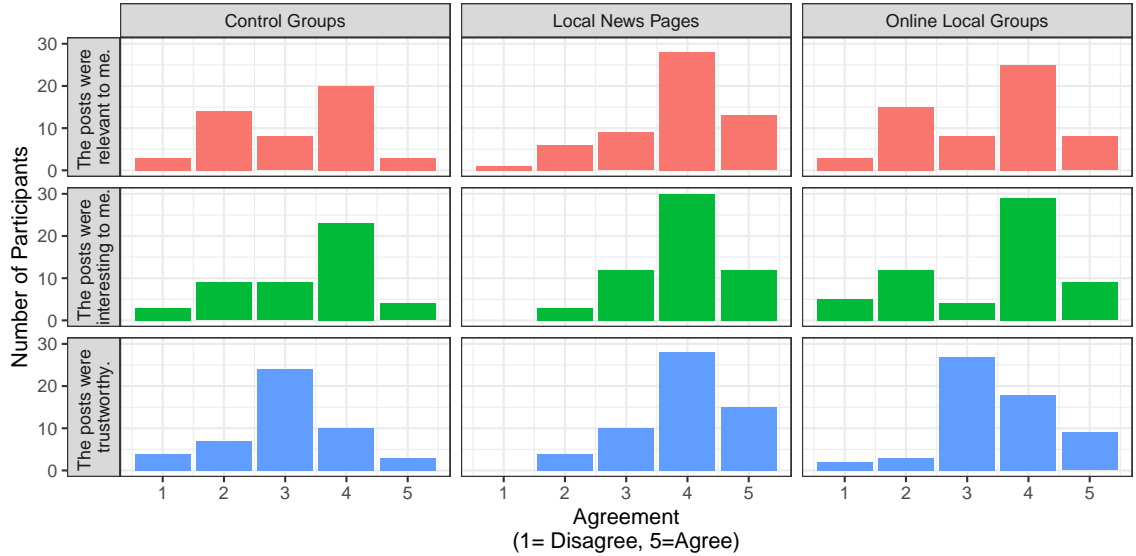


Fig. 1. Perceived quality of posts for three treatment conditions. After the treatment period, participants who saw at least one post on their news feed were asked to evaluate how relevant/interesting/trustworthy they felt the posts to be.

## 5 DISCUSSION AND CONCLUSION

The first contribution of this article is our framework to evaluate the impact of local information exposure on individual-level healthy community attitudes. As the local news landscape shifts, we must understand how the health of communities is being impacted. Although many studies have explored aspects of local news benefits to communities, few synthesize them into an overall evaluation of community health (e.g. *community attachment* is focused on in [11].) A strength of our framework is that it can be assessed, at the individual-level, at any time, to evaluate changes in community attitudes. A potential future extension of our framework would be to also measure behaviors.

Recent community studies have called upon the industry to think of local news as a collaborative, bottom-up process [4, 6]. However, in this study we find that content from local online groups is perceived as less high-quality than content from local news pages. Still, most participants “somewhat agreed” that local online group content was *interesting* and *relevant*, suggesting potential for local online groups to supplement local information streams. We thus need approaches that prioritize increasing perceived (and actual) information quality. For example, in 2021, the *Tennessean* launched a local Facebook group curated by a journalist [9]. A possible alternate explanation for differences in quality perceptions is that our study participants were a homogeneous group of majority white, educated, and liberal people with a pre-existing propensity to trust “traditional” local journalism. Usher [21] argues that the people who most benefit from “traditional” local journalism today are the intellectual elites. This effect may be reflected in our study, as those who are catered to by “traditional” journalism perceive their content as more interesting, relevant, and trustworthy.

Despite participants finding value in local treatment groups and pages, we see no significant effects of increasing local news exposure on Facebook on attitudes towards community. It is possible that increased exposure to local information does not impact individual community attitudes (as [10] may indicate), but there are other reasons why we may not

have found an effect. Our sample of participants may have lived in their city of residence for too long to be influenced by our intervention, the sample size may have been too small, or our study may not have run for long enough.

Our study presents a promising direction for generalizable experiments about local news. Typically, approaches to assessing local media use and exposure are either generic or limited to a single location, which limit the generalizability of findings and obfuscate larger trends. We take steps towards addressing this problem by selecting content across four U.S. cities. In the future, one might imagine our methodology could be extended programmatically for any participant in any location. To understand local journalism today is to understand local information broadly, and as our sources for local information multiply and diverge, we must adopt flexible structures to measure their impact to society.

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