

Citizen Journalism, Political Discussion, and Civic Participation: Testing a Moderating Role of Media Credibility and Collective Efficacy

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This study proposes a moderated mediation model whereby the relationship between citizen journalism and civic participation through political discussion differs depending on the levels of media credibility and collective efficacy. Results from a national online panel survey indicate that political discussion mediates the relationship between citizen journalism and civic participation, with the magnitude of the relationship stronger for those who evaluate news media sites as more credible. Moreover, findings reveal that the positive relationship between political discussion and civic participation is stronger for those who have higher levels of collective efficacy. With these findings, the present study further discusses theoretical, practical, and policy implications.

Keywords: citizen journalism, civic participation, political discussion, media credibility, collective efficacy

A burgeoning body of scholarship examines the potential of user-generated content (UGC) to enhance civic and political activities for engaged citizenship (e.g., Bruns, 2005; Dylko & McCluskey, 2012; Ekstrom & Östman, 2015; Leung, 2009; Östman, 2012). Of particular interest is citizen-created content, such as comments on news stories, pictures, videos, and news stories about public affairs that citizens contribute to online news sites (Miller, Rainie, Purcell, Mitchell, & Rosenstiel, 2012; Purcell, Rainie, Mitchell, Rosenstiel, & Olmstead, 2010). This so-called citizen journalism practice carries democratic implications for citizens to revitalize participatory cultures and engage in “public discussions” (Friedland & Kim, 2009).

Previous studies have investigated the direct effects of citizen journalism on civic and political activities (e.g., Ardèvol-Abreu, Hooker, & Gil de Zúñiga, 2018; Ekstrom & Östman, 2015; Kaufhold, Valenzuela, & Gil de Zúñiga, 2010; Nah, Namkoong, Record, & Van Stee, 2017; Östman, 2012). Although research in this area tends to focus on consumption of user-generated content, several studies have examined user-generated content or citizen journalism and its contributions to democratic outcomes. For instance, some scholars have found that writing news stories about nonprofit and voluntary organizations promotes citizens’ willingness to

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work as volunteers for, and donate money and items to, community organizations (Nah et al., 2017). Similarly, others have also found that publishing a blog increases civic participation, such as contacting politicians or civil servants and donating money to support a political group or an organization's work (Ekstrom & Östman, 2015; Östman, 2012). This line of scholarship emphasizes the roles of citizens as not only consumers, but also producers in the contexts of news media and democratic outcomes.

The present study advances this line of scholarship with a particular emphasis on the relationship between citizen journalism and civic participation and the extent to which it occurs through political discussion. Moreover, we examine the conditional indirect relationship between citizen journalism and civic participation via political discussion with two moderators—media credibility (Gaziano & McGrath, 1986; Johnson & Kaye, 1998, 2000, 2004; Meyer, 1988; Newhagen & Mass, 1989) and collective efficacy, or the willingness of community members to solve shared problems (Kim & Ball-Rokeach, 2006b; Sampson, Raudenbush, & Earls, 1997). Specifically, relying on a communication mediation model (Cho et al., 2009; Shah et al., 2007), we postulate that the relationship of citizen journalism with civic participation through political discussion differs depending on the levels of media credibility and collective efficacy. To test the theorized model, this study uses data from a Web-based survey with a national online panel. Findings will inform the roles of citizen journalism and political discussion as catalysts, alongside media credibility and collective efficacy, for a healthier community to function in civil society.

Citizen Journalism and Civic Participation

Citizen journalism and civic participation are multifaceted and multidimensional concepts. In this study, citizen journalism refers to "contribution to conversation of democracy" (Nah, Yamamoto, Chung, & Zuercher, 2015, p. 400; see also Chung, Nah, & Yamamoto, 2018). Citizen journalism in a broad sense entails various forms, such as commenting on news stories, uploading photos and videos, and writing news stories on online news sites—thus contributing to the mainstream and citizen news sites where citizens create and share information and news and participate in discussion concerning common interests and community issues (Nah, 2008; Nah & Chung, 2020). Next, civic participation indicates individual and collective action taken by citizens for their community decision-making and problem-solving processes (Kim & Ball-Rokeach, 2006a, 2006b; McLeod et al., 1996; McLeod, Scheufele, & Moy, 1999; Putnam, 2000; Verba, Schlozman, & Brady, 1995). Specifically, civic participation encompasses a wide array of civic and political activities, from voting in elections, through volunteering for organizations, to working on community projects (Adler & Goggin, 2005).

A substantial body of scholarship has consistently shown the positive relationship between local news consumption and civic participation (e.g., Kim & Ball-Rokeach, 2006a, 2006b; McLeod et al., 1996, 1999; Shah, Cho, Eveland, & Kwak, 2005; Shah et al., 2007). In a similar vein, a growing body of research has demonstrated the positive association between citizen journalism and civic participation (Ardèvol-Abreu et al., 2018; Ekstrom & Östman, 2015; Nah et al., 2017; Östman, 2012). With a focus on citizen journalism practice, Nah and his colleagues (2017) found in an experiment that college students who participated in an intervention designed to develop citizen journalism practice for local nonprofit organizations were more likely to engage in civic activities, such as volunteering for and donating to nonprofit organizations, than their counterparts. Using two-wave panel survey data, Ardèvol-Abreu et al. (2018) showed that citizen news production, such as posting multimedia content related to current events, was directly related to increases

in offline political participation. A key reason for this role of citizen journalism lies in its capacity to develop civic-mindedness in those who practice citizen journalism (Mody, 2011; Nah et al., 2017), which in turn leads to participation in public forums (Verba et al., 1995). Involvement in news production enables citizens to be more aware of, interested in, and knowledgeable about community issues and common interests, thus motivating them to participate in civic activities individually or collectively. With these rationales, we propose the following hypothesis:

H1: Citizen journalism will be positively associated with civic participation.

Citizen Journalism, Political Discussion, and Civic Participation

In this section, we integrate political discussion into the relationship between citizen journalism and civic participation. Political discussion refers to civic conversations about public affairs and community issues (Kim, Wyatt, & Katz, 1999). By talking about politics and public affairs with others, citizens can gain information, learn different viewpoints, and form informed opinions (Delli Carpini, Cook, & Jacobs, 2004). Thus, political discussion cultivates qualities of citizenship central to informed political capacity, such as internal efficacy and political knowledge (e.g., Kim et al., 1999; Price, Cappella, & Nir, 2002; Shah et al., 2005, 2007).

Beyond its independent contributions to democratic outcomes, political discussion serves as a mediator of the relationship between news information use and civic and political participation. This mediating role of political discussion is rooted in a communication mediation model (e.g., Cho et al., 2009; Shah et al., 2005, 2007). This model positions political discussion as a mechanism that makes news and information politically meaningful. One premise of this model is that the effect of news and information on civic and political participation is largely indirect through citizen-to-citizen communication rather than civic and political participation as direct responses to information stimuli. A large number of studies have supported this role of political discussion (e.g., Chan, 2016; Yamamoto, Nah, & Bae, 2019).

Although research has commonly examined political discussion in relation to news consumption and civic and political outcomes, our study tests the relationship between citizen journalism and political discussion and whether political discussion plays the same mediating role connecting citizen journalism and civic participation. If citizen journalism promotes civic orientation (Mody, 2011; Nah et al., 2017), then it would be reasonable to expect that those who practice citizen journalism will engage in conversations about community issues with fellow citizens and that as they do so, they will be more prepared to engage in civic activities. Based on this application of the role of political discussion, we propose the following hypotheses:

H2: Citizen journalism will be positively associated with political discussion.

H3: Political discussion will be positively associated with civic participation.

H4: Citizen journalism will be positively associated with civic participation indirectly through political discussion.

Furthermore, we explore the potential differences in political discussion contexts. Political discussion used to be face-to-face settings, but with the growth of social and mobile media, people commonly talk about politics with friends, acquaintances, and strangers online (Nah, Veenstra, & Shah, 2006). Online environments may uniquely influence people's willingness to voice political views. On the one hand, online political discussion may be an extension of offline political discussion. As political discussion networks have become more homogenous and kin based (Lee & Bearman, 2020), online platforms that make it easy to find like-minded others may enhance this trend. On the other hand, the unique characteristics of computer-mediated communication, such as limited social cues, asynchronous interaction, and anonymity (Suler, 2004), may enable people to be more expressive (X. Liu & Fahmy, 2011). Given this possibility and the evidence that offline and online political discussion differentially affect political outcomes (Ardèvol-Abreu & Gil de Zúñiga, 2020), we address the preceding hypotheses with political discussion separated into offline and online contexts and explore the following research questions.

RQ1: To what extent does citizen journalism relate to offline and online political discussion?

RQ2: How are offline and online political discussion associated with civic participation?

RQ3: Is citizen journalism associated with civic participation indirectly through offline and online political discussion?

Political Discussion as a Moderated Mediator: Moderating Roles of Media Credibility and Collective Efficacy

Building on the indirect relationship hypothesized earlier, we further consider a conditional moderated mediation model with two potential moderators: media credibility and collective efficacy. Media credibility generally refers to one's perceptions of believability (Kiousis, 2001; Metzger, Flanagin, Eyal, Lemus, & McCann, 2003; Tseng & Fogg, 1999). Although this concept is multifaceted and multidimensional, crossing levels of messages, sources, and channels (Johnson & Kaye, 1998, 2004, 2009; Li, 2006; Rimmer & Weaver, 1987), its common attributes include accuracy, fairness, completeness, reliability, and trustworthiness (Metzger et al., 2003). Given that a growing number of citizens engage in news production on traditional and alternative citizen news platforms (Miller, Rainie, Purcell, Mitchell, & Rosenstiel, 2012; Purcell, Rainie, Mitchell, Rosenstiel, & Olmstead, 2010), credibility of both traditional and online media is as equally important as news consumers and producers (e.g., Johnson & Kaye, 2004, 2009), and may promote or hinder democratic participation as it relates to citizen journalism practice.

As noted earlier, citizen journalism may encourage citizens to engage in political discussion. In this process, citizen journalism may interact with media credibility, such that the more credible citizens perceive news platforms where citizens contribute content, the more likely they are to be motivated to discuss community issues and common interests with fellow citizens. In this process, citizens may develop civic-mindedness more on news platforms that they think are credible and hence can comfortably engage in journalistic practice. Because citizen journalism is practiced on both mainstream and alternative platforms (Nah et al., 2015; Nah & Yamamoto, 2019), and research shows that from an audience's perspective, news

credibility does not differ between professional and citizen journalism (Netzley & Hemmer, 2012), we integrate credibility of professional and citizen journalism to examine media credibility as a whole.

H5: The relationship between citizen journalism and political discussion will be moderated by media credibility, such that the relationship will be stronger for those who evaluate news media sites as more credible.

Research also suggests that credibility of professional and that of citizen journalism function differently as moderating variables. It is likely that people who rate citizen journalism to be credible connect particularly well with news created by fellow citizens and presented on citizen news sites (Kaufhold et al., 2010). In support of this possibility, Kaufhold and colleagues (2010) showed that the relationship between use of citizen news and online political participation was stronger for those with higher levels of trust in citizen news. Ardèvol-Abreu and associates (2018) also reported that the effect of citizen news production on online political participation was more pronounced for those who trusted citizen news more. In light of this evidence, we differentiate media credibility into professional and citizen journalism aspects.

RQ4: To what extent do professional and citizen journalism credibility moderate the relationship between citizen journalism and political discussion differently?

Collective efficacy is defined as the perceived willingness of community members to come together and solve common problems (Kim & Ball-Rokeach, 2006a, 2006b; Sampson et al., 1997). Collective efficacy is different from similar concepts of efficacy, such as internal efficacy and external efficacy, in its group-based ability to realize the common good. Whereas internal efficacy broadly concerns one's perceived competence to be effectively involved in politics and civics, external efficacy refers to the belief about the responsiveness of established authorities and institutions (Niemi, Craig, & Mattei, 1991). Collective efficacy focuses on the ability of a collective, typically members of a residential neighborhood, to voluntarily take actions for the realization of shared values and common interests (Kim & Ball-Rokeach, 2006a, 2006b; Sampson et al., 1997).

Ball-Rokeach and her associates (Kim & Ball-Rokeach, 2006a, 2006b) noted that interpersonal discussion helps nurture collective efficacy, alongside community groups and mass media, resulting in increased civic participation. In the present study, we consider collective efficacy as a moderator of the relationship between political discussion and civic participation. While political discussion is essential for civic participation (e.g., Kim et al., 1999), not all who frequently discuss politics and public affairs are actively involved in civic activities. In this regard, it might be reasonable to expect that the relationship between political discussion and civic participation would be dependent on community members' shared belief in what other people are able to do for their community. The civic value of political discussion thus would likely be increased when citizens perceive that community members are willing to intervene to address local issues together when needs arise (Sampson et al., 1997). Thus, we propose the following hypothesis.

H6: The relationship between political discussion and civic participation will be moderated by collective efficacy, such that the relationship will be stronger for those who have higher level of collective efficacy.

Method

Data for this study came from an online survey conducted between May 29 and June 13, 2015. Respondents were recruited from a national online panel managed by Survey Sampling International (SSI, now Dynata). The online panel included SSI's proprietary panels, as well as panels from partnerships with websites and online resources of all types, so that even populations who may not have wished to join a research panel were included in the sampling frame. While targeting respondents among minority groups to balance out each ethnic group, SSI considered demographic features, such as gender, age, and community type (e.g., urban vs. rural), to match the distribution of the U.S. population. Then, SSI sent an invitation to 6,048 online panels registered with SSI. Of the 6,048 invitations, 1,201 respondents completed the survey, yielding a response rate of about 20%. In comparison with the latest U.S. Census, the sample was slightly older (median age = 44.0) and more educated (42.3% of respondents had a bachelor's degree or higher, compared with 29.8% in the population), and included more males (60.5%) than females (39.5%). The sample was relatively diverse across racial and ethnic groups (43.1% Caucasian/White, 17.2% African American/Black, 17.0% Hispanic/Latino, and 14.7% Asian American).

Measurement

Civic participation. Civic participation was measured using 12 items that asked respondents if they participated in a battery of civic events or activities (Chen, Dong, Ball-Rokeach, Parks, & Huang, 2012; Kim & Ball-Rokeach, 2006b; Nah & Yamamoto, 2017). Specifically, respondents were asked whether, in the past two years, they engaged in each of the following activities: attending a civic forum or meeting where citizens spoke about local issues; contacting a local newspaper, television station, or radio station; signing a petition for a local candidate or issue; contacting a local public official; attending any local rallies, protests, boycotts, or marches; voting in a local election; working on behalf of a local social group, cause, or organization; contributing money to a local organization or a social group; donating blood, food, or clothing to local organizations; doing volunteer work; working on a community project; and working for a political campaign locally. Responses were summed to form an additive index ($M = 3.48$, $SD = 3.27$, $\alpha = .86$).

Citizen journalism. Based on the previous study (Nah et al., 2015), eight items were used to measure citizen journalism, tapping a wide range of production activities on news sites. Respondents were asked how frequently they contributed to professional (or mainstream) news media sites ($M = 2.70$, $SD = 1.99$, $\alpha = .97$) and citizen (or alternative) news media sites ($M = 2.70$, $SD = 1.99$, $\alpha = .97$) in the following ways: make comments, and submit photos, videos, and news stories. Respondents to this set of questions were given this definition of citizen journalism: ordinary citizens who do not have any professional journalistic training, but write news stories on a part-time or voluntary basis. We constructed a citizen journalism variable by taking the mean of the eight items ($M = 2.71$, $SD = 1.96$, $\alpha = .99$).

Although we explored the possibility of collapsing citizen journalism into the two distinct platforms, professional and alternative news sites, this attempt was not sensible because the data revealed an extremely strong correlation between the two variables ($r = .95$, $p < .001$). Collinearity statistics also indicated evidence of multicollinearity with Variance Inflation Factor (VIF) values greater than 10 when the two variables were simultaneously included in the same models. This issue may be attributable to

measurement errors that existed in this particular data set. It is also plausible that the two platforms in the current study were not distinct in terms of citizen journalism practice, which relates to a conceptual definition of citizen journalism practice that incorporates contributions to both mainstream and citizen news sites (Nah et al., 2015).

Political discussion. Eight items were used to measure frequency of political discussion tapping the level of discussion involvement in online and offline settings (Nah et al., 2006). On a scale of 1–7 (1 = *not at all*; 7 = *very frequently*), respondents were asked how often they talked about politics or current issues face-to-face with family members, neighbors, coworkers, and other friends and acquaintances. Responses were averaged to create a measure of offline political discussion ($M = 3.94$, $SD = 1.66$, $\alpha = .84$). Respondents were also asked how often they did so online with family members, neighbors, coworkers, and other friends and acquaintances. Then, responses were averaged to form a measure of online political discussion ($M = 3.06$, $SD = 1.93$, $\alpha = .92$). To form an overall political discussion measure, we averaged the offline and online political discussion measures together ($M = 3.50$, $SD = 1.66$, $\alpha = .92$). We also analyzed offline and online political discussion separately for RQ1, RQ2, and RQ3. The correlation between these two variables was not excessively high ($r = .73$, $p < .001$).

Media credibility. The measurement of professional and citizen journalism credibility was based on previous research (e.g., Gaziano & McGrath, 1986, Johnson & Kaye, 1998; Meyer, 1988; Nah & Chung, 2012; Newhagen & Mass, 1989). Specifically, professional journalism credibility was measured by asking respondents, on a scale of 1–7 (1 = *not at all*; 7 = *extremely*), how believable, fair, accurate, and comprehensive they found professional (or mainstream) news media sources to be ($M = 4.34$, $SD = 1.50$, $\alpha = .94$). Likewise, citizen journalism credibility was measured by asking respondents, on a scale of 1–7 (1 = *not at all*; 7 = *extremely*), how believable, fair, accurate, and comprehensive they found citizen (or alternative) news media sources to be ($M = 4.39$, $SD = 1.46$, $\alpha = .95$). The correlation between the two credibility variables ($r = .75$, $p < .001$) was not excessively high. Thus, we averaged the eight items to form an overall media credibility variable ($M = 4.37$, $SD = 1.38$, $\alpha = .95$), while also analyzing professional and citizen journalism separately for RQ4.

Collective efficacy. Collective efficacy was measured using six items (Kim & Ball-Rokeach, 2006a, 2006b). Respondents were asked how many of their neighbors they felt could be counted on to do something if (a) a stop sign or speed bump was needed to prevent people from driving too fast through their neighborhood, (b) there were dangerous potholes on the streets where they lived, (c) the sports field that neighborhood kids wanted to play on had become unsafe because of poor maintenance or gangs, (d) they asked their neighbors to help them organize a holiday block party, (e) a child in their neighborhood was showing clear evidence of being in trouble or getting into big trouble, and (f) the trees in their neighborhood were uprooting the sidewalks, making them unsafe. Responses were averaged on a 7-point scale ($M = 4.20$, $SD = 1.64$, $\alpha = .94$).

Statistical controls. Several variables were used as statistical controls. Age was asked in an open-ended format ($M = 42.42$, $SD = 13.16$). Gender was coded with male respondents as 0 and female respondents as 1 (female = 39.5%). Education was measured using a 7-point scale item ranging from *8th grade or less* to *graduate or professional degree* (median = 5). Income was measured on an 11-point scale

ranging from *under \$10,000* to *\$200,000 or more* (median = 6). Race was coded as Caucasian respondents as 1 and all others as 0 (White = 43.1%). Political interest was measured by a single 7-point scale item ranging from *not at all* to *very much* ($M = 4.53$, $SD = 1.78$). Political ideology was measured by two 7-point scale items (1 = *very liberal*; 7 = *very conservative*). That is, respondents were asked their stances on political and economic issues, respectively. Then, responses were summed and averaged to construct political ideology ($M = 3.90$, $SD = 1.58$, $r = .90$).

Traditional media use was measured by eight items. Respondents were asked how often they watched television news stories and read newspaper stories, respectively, about national politics or international affairs, and local politics or community issues. Respondents were also asked how much attention they paid to television news stories and newspaper stories, respectively, about national politics or international affairs, and politics or community issues. Responses to these items were summed and averaged on a 7-point scale ($M = 4.34$, $SD = 1.67$, $\alpha = .94$). Internet news use was measured by four items. Respondents were asked how often they read Internet news stories about national politics or international affairs, and politics or community issues. Respondents were also asked how much attention they paid to Internet news stories about national politics or international affairs, and politics or community issues ($M = 4.68$, $SD = 1.83$, $\alpha = .94$). Descriptive statistics and a correlation matrix among the variables are presented in Appendix Tables A1 and A2.

Analytic Strategy

All hypotheses were tested using the SPSS PROCESS macro (Hayes, 2013). The first four hypotheses involving the indirect relationship of citizen journalism with civic participation through political discussion were tested using Model 4. The same analysis was repeated with political discussion disaggregated to answer RQ1, RQ2, and RQ3. Media credibility and collective efficacy were introduced to the model to examine the moderated mediation model (Model 21). We repeated this analysis using professional and citizen journalism credibility in place of the overall media credibility variable. Estimated values of political discussion and civic participation were requested at the mean and one standard deviation below and above the mean of media credibility and collective efficacy.

Results

Hypothesis 1 stated that citizen journalism would be positively associated with civic participation. The second column in Table 1 shows that citizen journalism was positively related to civic participation ($B = .309$, $p < .001$). However, as shown in the third column, when political discussion was introduced to the model, citizen journalism was only marginally related to civic participation ($B = .115$, $p = .07$). Thus, this hypothesis was not supported.

Hypothesis 2 stated that citizen journalism would be positively associated with political discussion. This hypothesis was supported. The first column in Table 1 indicates that with all other variables considered, citizen journalism was positively related to political discussion ($B = .427$, $p < .001$), suggesting that respondents who often contributed to professional and alternative citizen news sites were more likely to discuss politics or current issues with others.

Table 1. Regression Models of Political Discussion and Civic Participation.

	Political Discussion		Civic Participation
Age	-.004(.00)	.017(.01)*	.019(.01)**
Gender	.082(.06)	-.177(.17)	-.215(.17)
Education	-.010(.02)	.243(.06)***	.247(.06)***
Income	.062(.01)***	.043(.04)	.015(.04)
Race	.080(.05)	.058(.17)	.022(.17)
Political interest	.249(.02)***	.379(.06)***	.265(.07)***
Political ideology	.028(.02)	-.033(.05)	-.045(.05)
Traditional news use	.141(.02)***	.307(.07)***	.243(.07)**
Internet news use	.093(.02)***	.117(.07)	.075(.07)
Citizen journalism	.427(.02)***	.309(.05)***	.115(.06)
Political discussion	—	—	.455(.09)***
R^2 (%)	70.7***	28.1***	29.7***

Note. $N = 1,201$. Entries are unstandardized regression coefficients (standard errors in parentheses). * $p < .05$. ** $p < .01$. *** $p < .001$.

Hypothesis 3 stated that political discussion would be positively associated with civic participation. This hypothesis was supported. The third column in Table 1 shows that, while controlling for all other variables in the model, political discussion was positively related to civic participation ($B = .455, p < .001$). In other words, respondents who discussed politics or current issues with others frequently were more likely to engage in civic activities than those who did so infrequently.

Hypothesis 4 stated that citizen journalism would be positively associated with civic participation indirectly through political discussion. The results for the second and third hypotheses collectively suggest an indirect relationship between citizen journalism and civic participation through political discussion. An inference test supported this hypothesis, as evidenced by 95% bootstrap confidence intervals (point estimate = .194, CIs [.114, .273]).

Hypothesis 5 stated that the relationship between citizen journalism and political discussion would be moderated by media credibility, such that the relationship would be stronger for those who evaluated news sources as more credible. This hypothesis was supported. As shown in Table 2, citizen journalism significantly interacted with media credibility in predicting political discussion ($B = .035, p < .01$).

Table 2. Interactive Relationships of Citizen Journalism With Political Discussion by Media Credibility and Political Discussion With Civic Participation by Collective Efficacy.

	Political Discussion
Citizen journalism x media credibility	.035(.01)**
Incremental R^2 (%)	0.25**
	Civic Participation
Political discussion x collective efficacy	.093(.03)**
Incremental R^2 (%)	0.58**

Note. $N = 1,201$. Entries are unstandardized regression coefficients (standard errors in parentheses). The model for political discussion controlled for age, gender, education, income, race, political interest, political ideology, traditional news use, Internet news use, citizen journalism, and media credibility. The model for civic participation controlled for age, gender, education, income, race, political interest, political ideology, traditional news use, Internet news use, citizen journalism, political discussion, and collective efficacy.

* $p < .05$. ** $p < .01$. *** $p < .001$.

As shown in Table 3 and visualized in Figure 1, the relationship was in fact stronger for those who rated news sources as more credible.

Table 3. Relationships of Citizen Journalism and Political Discussion at Different Values of Media Credibility and of Political Discussion and Civic Participation at Different Values of Collective Efficacy.

	Media Credibility	Point Estimate	Lower CI	Upper CI
Citizen Journalism	2.984	.311	.250	.372
	4.365	.360	.320	.400
	5.747	.409	.373	.445
Collective efficacy				
Political Discussion	2.564	.262	.057	.468
	4.203	.414	.239	.590
	5.841	.566	.373	.759

Note. Values of moderating variables are $-1SD$, mean, and $+1SD$.

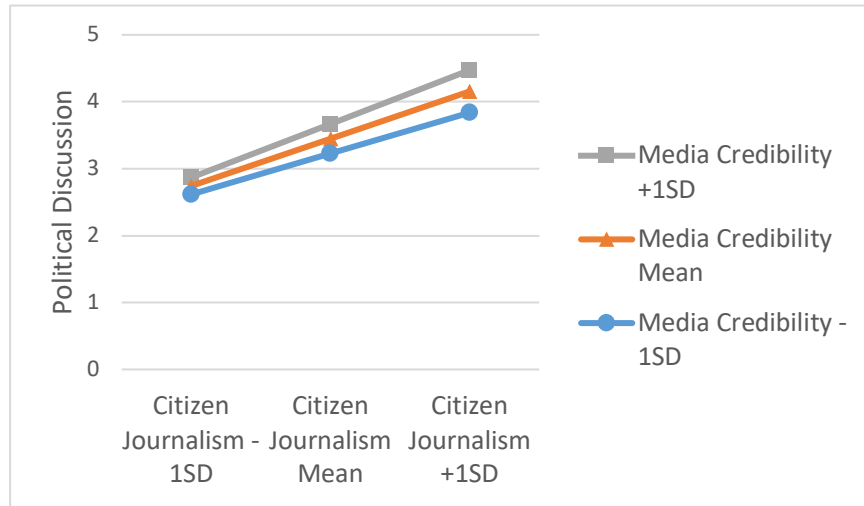


Figure 1. An interactive relationship of citizen journalism and political discussion by media credibility.

Hypothesis 6 stated that the relationship between political discussion and civic participation would be moderated by collective efficacy, such that the relationship would be stronger at higher levels of collective efficacy. This hypothesis was supported. Table 2 shows that political discussion significantly interacted with collective efficacy in predicting civic participation ($B = .093, p < .01$). The relationship that political discussion had with civic participation was more pronounced for those who perceived the willingness of their neighbors to solve common problems (see Table 3 and Figure 2).

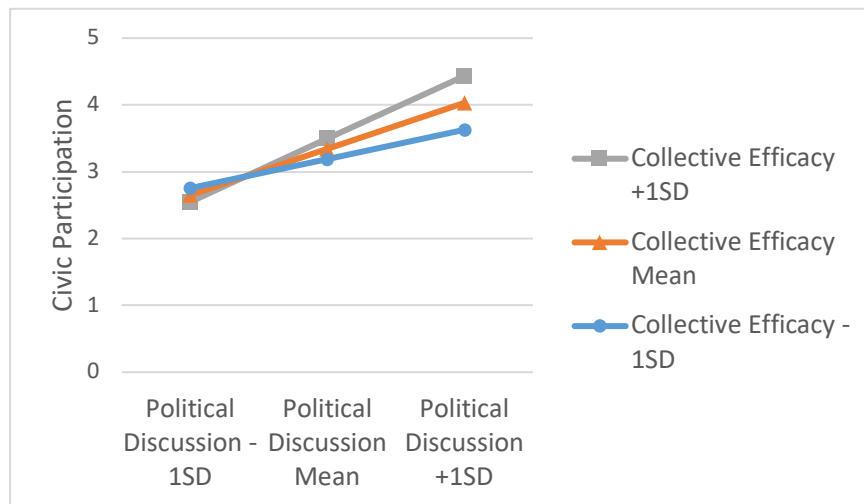


Figure 2. An interactive relationship of political discussion and civic participation by collective efficacy.

The analysis also indicated that the moderated mediation model was significant: (moderated mediation index = .003, CIs [.001, .007]). Table 4 presents the indirect association between citizen journalism and civic participation through political discussion at three different values of media credibility and collective efficacy. The indirect relationship was the strongest when the values of media credibility and collective efficacy were both high (one standard deviation above the mean), and the weakest when the values were both low (one standard deviation below the mean).

Table 4. Indirect Relationships Citizen Journalism and Civic Participation Through Political Discussion at Different Values of Media Credibility and Collective Efficacy.

Media Credibility	Collective Efficacy	Point Estimate	Lower CI	Upper CI
2.984	2.564	.082	.019	.152
2.984	4.203	.129	.070	.196
2.984	5.841	.176	.106	.254
4.365	2.564	.094	.022	.172
4.365	4.203	.149	.084	.219
4.365	5.841	.204	.128	.285
5.747	2.564	.107	.025	.194
5.747	4.203	.169	.097	.245
5.747	5.841	.231	.146	.321

Note. Values of moderating variables are -1SD, mean, and +1SD.

To answer the proposed research questions, we repeated the same analyses using the disaggregate measures of political discussion and media credibility. RQ1 asked about the link between citizen journalism and offline and online political discussion. The data showed that citizen journalism had a positive relationship with both forms of political discussion ($B = .269, p < .001$ for offline, and $B = .585, p < .001$ for online). RQ2 concerned the relationship between offline and online political discussion and civic participation. Both offline ($B = .278, p < .01$) and online ($B = .184, p < .05$) political discussion were positively related to civic participation. RQ3 asked about the indirect relationship between citizen journalism and civic participation through offline and online political discussion. A mediation model showed that citizen journalism was positively associated with civic participation through offline political discussion (point estimate = .075, CIs [.031, .119]) and online political discussion (point estimate = .108, CIs [.019, .199]).

RQ4 asked about the role of professional and citizen journalism credibility in moderating the relationship between citizen journalism and political discussion. When professional journalism credibility was specified as a moderator, it moderated the relationship between citizen journalism and the overall political discussion variable ($B = .032, p < .01$). Collective efficacy significantly interacted with the overall political discussion variable in predicting civic participation ($B = .093, p < .05$). The moderated mediation model was significant (moderated mediation index = .003, CIs [.001, .006]). Similarly, citizen journalism credibility significantly moderated the association between citizen journalism and the overall political discussion variable ($B = .038, p < .001$). Together with the significant moderating role of collective efficacy, the moderated mediation model was significant (moderated mediation index = .004, CIs [.001, .007]). The patterns of these moderated mediation effects were substantively similar to the results reported in Table 4.

We further estimated a moderated mediation model with professional journalism credibility as a moderator of the associations of citizen journalism with offline and online political discussion. Professional journalism credibility moderated the relationship between citizen journalism and offline political discussion ($B = .023, p < .05$), and the relationship between citizen journalism and online political discussion ($B = .041, p < .01$). Collective efficacy moderated the relationship between offline political discussion and civic participation ($B = .086, p < .05$). However, online political discussion did not significantly interact with collective efficacy in predicting civic participation ($B = .013, p = .334$). The moderated mediation model was not significant for offline political discussion (moderated mediation index = .002, CIs [-.000, .006]) and for online political discussion (moderated mediation index = .001, CIs [-.003, .005]).

We also estimated the same moderated mediation model with citizen journalism credibility as a moderator of the paths from citizen journalism to offline and online political discussion. Citizen journalism credibility played only a marginal role as a moderator of the relationship between citizen journalism and offline political discussion ($B = .024, p = .051$), while it significantly moderated the relationship between citizen journalism and online political discussion ($B = .052, p < .001$). Results regarding collective efficacy as a moderator of the relationship between offline and online political discussion and civic participation were identical to those in the preceding analysis. The moderated mediation model was not significant for offline political discussion (moderated mediation index = .002, CIs [-.000, .006]) and for online political discussion (moderated mediation index = .001, CIs [-.004, .006]).

Discussion

This study tested a moderated mediation model whereby the relationship between citizen journalism and civic participation through political discussion differs contingent on the varying levels of media credibility and collective efficacy. In sum, although citizen journalism did not have a significant, direct relationship with civic participation, it did predict political discussion, suggesting that citizens who more frequently contributed to online news sites in the form of comments, photos, videos, and news stories more frequently discussed politics and community issues with fellow citizens. This finding is consistent with prior results indicating that citizen news production leads to political discussion (e.g., Ardèvol-Abreu et al., 2018; Ekstrom & Östman, 2015; Nah et al., 2017).

Furthermore, citizen journalism was positively related to civic participation through political discussion. From the communication mediation model, this finding aligns with a substantial body of work in the sense that communication, especially interpersonal political discussion, acts as a mediating mechanism leading to political and civic behaviors (Cho et al., 2009; McLeod et al., 1999; Shah et al., 2005, 2007). These results suggest that political discussion, as a catalyst of democracy, can mediate the influences of not only news consumption but also news production on civic outcomes.

Of particular importance are the findings from the moderated mediation involving political discussion. The relationship between citizen journalism and political discussion was stronger for those who evaluated news media sites as more credible, whereas political discussion had a stronger relationship with civic participation for those who had higher levels of collective efficacy. These findings convey valuable insights regarding the vital roles that psychological variables play in the pathway from citizen journalism to

civic participation through political discussion. The civic utility of citizen journalism and citizen-to-citizen discussion was particularly high when citizens conceived news platforms with citizen-produced content as credible and when citizens perceived that their neighbors could be counted on to solve community problems. Although we do not exclude the possibility that media credibility and collective efficacy could serve as mediating mechanisms, news media credibility and collective efficacy in this study play as important moderators in enhancing the relationship between citizen journalism and civic participation through political discussion. Thus, these results extend the communication mediation model (Cho et al., 2009; Shah et al., 2007) through the moderated mediation mechanism to examine the nexus among citizen journalism, political discussion, and civic participation.

While the theorized moderated mediation model offers theoretical insights, its findings also carry practical implications and policy applications. Given that citizen journalism matters for political discussion, community-based citizen news sites (Knight Community News Network, 2015), along with professional news sites, should strive to encourage community members to contribute to their news sites, which can function as community forums. This endeavor, in turn, could lead to increased public discussion concerning community issues and public affairs and help nurture a civic community. For instance, while news media sites offer interactive features that allow citizens to get involved in news consumption and production processes, they should also provide more participatory opportunities through citizen reporter corps, citizen journalism workshops, and community events. A successful example is the Alhambra Source (www.alhambra-source.org/), a community news outlet in an ethnically diverse community that mobilizes residents to participate in the news production process, thus stimulating community engagement (Chen et al., 2012; W. Liu, Chen, Ognyanova, Nah, & Ball-Rokeach 2018).

In a similar vein, community institutions and organizations, including local governments, nonprofit and voluntary associations, and news media organizations, should strive to offer community discussion spheres in offline and online settings. Given that news media sites can function as discussion spheres, they should offer online spaces for community members to discuss common interests and public affairs and express diverse voices to collectively solve community issues and problems. In so doing, news media organizations may offer more credible information and news sources, allow citizens to interact with the news sites, and encourage citizen journalism practice, thereby enhancing perceptions of media credibility and public discussion (Nah & Chung, 2012). Likewise, local governments and nonprofit organizations, as core community storytelling networks (Kim & Ball-Rokeach, 2006a, 2006b), should offer more discussion spaces online and offline (e.g., websites, community forums) to simulate public conversations and community engagement. From a communication infrastructure perspective (Kim & Ball-Rokeach, 2006a, 2006b), local communities at large should strive to build a stronger community communication infrastructure, such as connections to community organizations, local news media organizations, and interpersonal discussion, in a way that community storytelling networks as core communication assets can amplify collective efficacy and civic participation.

Despite these theoretical, practical, and policy implications, this study has inherent limitations for future scholarship. From a theoretical perspective, a new paradigm of citizen journalism and its democratic implications should take a holistic approach, embracing not only citizen journalism itself, but also consumption of citizen-created news content—give that both operate in a simultaneous process (Bruns,

2005). Although the model tested in the present study was found to help researchers understand the role of citizen journalism in civic participation, a more elaborated model is also required for empirical testing. Future scholarship should consider testing whether media credibility and collective efficacy function in a mediating mechanism that predicts political discussion and civic participation in the communication mediation model. Continuing scholarship should also consider other important antecedents to civic and political participation—such as political knowledge, internal efficacy, and trust—which could be integrated to develop a more comprehensive citizen journalism and civic participation model.

On the methodological end, we acknowledge that the data from a national online panel were inherently limited for generalizability, particularly given that men and more educated groups were disproportionately included in the sample (see a comparison between sample and population in Table A1). A survey of a representative sample with racial variations is necessary to address this limitation. Furthermore, the current cross-sectional data may limit causal inferences about the present model. Thus, longitudinal studies with a panel design are desired to produce more causally robust evidence. We also acknowledge that the digital media and political landscape has changed noticeably since the data were collected in 2015—particularly after the 2016 presidential election—affecting the nature and patterns of citizen journalism practice (e.g., liking and sharing on news sites and social media), Internet news use, media credibility, and political discussion, as well as the multiplicity of communication platforms (e.g., news websites, nonnews sites, discussion boards, blogs, social media, and mobile apps). Therefore, subsequent scholarship should test the theorized models with more comprehensive data that reflect the diverse communicative platforms, patterns, and participation, as well as more elaborated measures of citizen journalism and credibility between mainstream and alternative media.

Nonetheless, the present study provides valuable and nuanced insights into how to revitalize a civil society through participatory communication, collective actions, and community psychology. Future scholarship should continue to examine how to reinvigorate online news sites through participatory and citizen journalism, as well as community forums and events, to promote political discussion and civic participation. In so doing, future scholarship should examine how and under what conditions online news platforms as storytelling networks can play vital roles in community and democratic processes and outcomes, especially in the contexts of the declining levels of media use and trust in news media.

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Appendix

Table A1: Descriptive Statistics.

	Sample	Population
Age (median)	44.00	37.6
Gender		
Male	60.5%	49.2%
Female	39.5%	50.8%
Education (median)	Associate's degree	
Bachelor's degree or higher	42.3%	29.8%
Income (median)	\$50,000 to \$74,999	\$53,889
Race/ethnicity		
White	43.1%	73.6%
Black or African American	17.2%	12.6%
Hispanic or Latino	17.0%	17.1%
Asian	14.7%	5.1%
American Indian or Alaska Native	2.7%	2.7%
Native Hawaiian or Pacific Islander	0.2%	0.2%
Political ideology	$M = 3.90, SD = 1.58$	—
Political interest	$M = 4.53, SD = 1.78$	—
Traditional news use	$M = 4.34, SD = 1.67$	—
Internet news use	$M = 4.68, SD = 1.83$	—
Citizen journalism	$M = 2.71, SD = 1.96$	—
Political discussion	$M = 3.94, SD = 1.66$	—
Media credibility	$M = 3.27, SD = 1.38$	—
Collective efficacy	$M = 4.20, SD = 1.64$	—
Civic participation	$M = 3.48, SD = 3.27$	—

Note. Population data from the 2011–2015 American Community Survey five-year estimates.

Table A2: Correlation Matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13
Age	—												
Gender (female)	.053	—											
Education	.041	-.041	—										
Income	-.005	-.004	.435**	—									
Race (White)	.104**	-.153**	-.014	.032	—								
Political ideology	.073*	-.047	-.050	.005	.101**	—							
Political interest	.052	-.132**	.133**	.159**	.082**	.001	—						
Traditional media	.075**	-.109**	.102**	.144**	.013	-.014	.648**	—					
Internet news	-.130**	-.143**	.145**	.179**	-.004	-.046	.600**	.639**	—				
Citizen journalism	-.301**	-.132**	.054	.100**	-.022	.058*	.414**	.472**	.365**	—			
Political discussion	-.168**	-.114**	.116**	.213**	.034	.049	.634**	.620**	.545**	.732**	—		
Media credibility	-.075**	-.050	.041	.075**	-.050	-.091**	.435**	.538**	.399**	.523**	.567**	—	
Collective efficacy	-.052	-.055	.104**	.158**	.015	.052	.404**	.462**	.321**	.505**	.570**	.561**	—
Civic participation	.030	-.106**	.185**	.161**	.032	-.008	.448**	.441**	.370**	.358**	.477**	.272**	.324**

Note. * $p < .05$. ** $p < .01$.