Virtual Community Support for Offline Communities Through Online Newspaper Message Forums

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Through Online Newspaper Message Forums

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Jack Rosenberry is an associate professor of communication/journalism at St. John Fisher College in Rochester, N.Y.
Abstract (51 words)

A survey of participants in message forums located within the online sites of U.S. newspapers determined that taking part in forum reading and posting helps to predict users’ sense that they understand their local communities better but is not related to their actually getting out and taking part in real-world community activities.
**Introduction**

When one metro newspaper redesigned its Web site to emphasize citizen journalism and social networking tools, the editor used a column in the print paper to comment that “Anyone can build his or her own virtual community through our new system.”¹ Her goals were a practical aspiration of something that has been conceptualized since the earliest days of computer mediated communication: the use of networked interactivity to create online communities that overlap and reinforce local geographic communities.

A place in which an online community of interest and offline geographic community can intersect is message forums sponsored by Web sites of local newspapers. These forums have become relatively common; a recent study found them at 31 percent of the online news sites sampled systematically from among 277 U.S. Census Bureau metropolitan statistical areas.² They have generally the same format as Internet-based groups such as Usenet, with written comments organized into conversations or “threads” of related postings. Yet unlike Usenet posters who come from literally anywhere and everywhere, newspaper sites’ forums are largely populated by local residents. This makes these forums somewhat akin to “wired” local communities, such as the experimental installations in the mid-1990s in Blacksburg, Virginia and the pseudonymous Netville in suburban Toronto, Canada.

However, little academic research has been done with regard to newspaper forums, and no research was found that analyzed them in the context of traditional theories of virtual community³ or how it is “articulated”⁴ in the context of a local
geographic community. Such analysis and articulation is the purpose of this research, which is based on a survey of participants in newspaper forum sites.

**Literature review**

Some authors seeking to define virtual community have started with definitions of traditional geographic community, then used those characteristics as a frame of reference for how members of a virtual community interact. In such studies, perspectives for assessing how groups interact over the Internet have examined sharing of facilities and local interests,\(^5\) common ties and social interaction,\(^6\) and shared values and mutual obligation.\(^7\) Hampton and Wellman noted the progression from the real world to the virtual by saying that traditional models of community have focused on “little groups of neighbors intensively socializing, supporting, and controlling one another,” but then offering the alternative view that “it is the sociable, supportive and identity-giving interactions that define community, and not the local space in which they might take place.”\(^8\) As a strictly online phenomenon, Ridings and Gefen define virtual community as “groups of people with common interests and practices that communicate regularly and for some duration in an organized way over the Internet through a common location or mechanism.”\(^9\) Burnett says virtual communities frequently “take the form of discussion forums focusing on a set of interests shared by a group of geographically dispersed participants.”\(^10\) Blanchard and Horan add that these groups are stable over time and that individuals seek out others with whom they share interests.\(^11\) All of these characteristics apply to newspaper message forums.
**Investigations of virtual community**

Scholars interested in virtual communities have generally explored them in one of two venues: either “online-only” interaction spaces or “wired” geographic communities. Various research also has addressed whether participation in online communities enhances, undermines, or has no appreciable impact on computer users’ connections with offline communities. This is not a settled question; advocacy of all of these views can be found in the literature on virtual community.

Seeking to explore what might constitute a “virtual community,” Burnett and Buerkle classified message-board postings with the goal of creating a typology that would help to determine whether a collection of postings could be truly considered a community.\(^\text{12}\) Ridings and Gefen sought to understand motivations for participating in online message boards by posting the question “Why did you join this community?” in 27 different boards and analyzing nearly 400 responses to it.\(^\text{13}\) Dahlberg\(^\text{14}\) and Smith\(^\text{15}\) both identified characteristics of online message forums, such as disrespectful postings, that worked to undermine the development of community attitudes among the participants. Hill and Hughes concluded that Usenet political discussion bulletin boards constituted political communities after comparing content of the political discussions in them to communicative behavior of offline political communities.\(^\text{16}\)

Other researchers have investigated the “overlay” of computer networks on geographic communities. For example, Prell described how computer technology might strengthen a community: “These networks are seen as local, community initiatives where owners and developers are community members, and the networks’ content reflects community needs and interests.”\(^\text{17}\) Two bellwether projects of this type that received
extensive attention when they were set up were the Blacksburg Electronic Village (in the hometown of Virginia Polytechnic University) and the Netville community in suburban Toronto. In both places, free high-speed Internet access was offered to residents of a physical community at a time – the mid-1990s – when Internet access in general was less ubiquitous than it is today and home-based broadband access was particularly uncommon. Evaluations of whether the “wiring” of these locations really did lead to enhanced community interaction reported mixed results. One report concluded that “The Netville experience suggests that when people are offered an easier way of networking with the Internet, the scope and amount of neighborly contact can increase.”\(^{18}\) But an analysis of Blacksburg reached the opposite conclusion, saying that despite the civic-minded rhetoric behind it, the ultimate implementation had a generally commercial basis – with an “electronic shopping mall” as its most prominent characteristic rather than an online community square.\(^{19}\)

**Interactivity, civic engagement and social capital**

These conflicting findings underscore a key element explored by research into virtual community: namely, how and whether online relationships can affect the nature and character of offline community relationships, including those affiliations that help to build what Putnam\(^{20}\) and others call social capital. As one article put it, “Can an increase in participation in virtual communities compensate for the decrease in social capital caused by decreased participation in face-to-face communities?”\(^{21}\)

A 1998 article appropriately titled “Internet Paradox” described both the pro- and anti-social aspects of individuals spending more time online but concluded that time spent with online relationships undermined close social relationships in the offline
world. The Netville researchers reached a different conclusion, noting on the one hand that “modern dystopians suggest that the lure of new communication technologies withdraw people from flesh-to-flesh contact and further disconnect them from families and communities” but at the same time proposing that “The rise of the virtual community has introduced new methods to be used in maintaining relationships with members of traditional communities, those who first met face-to-face, and with members of new electronic communities, where members first met online.”

As another set of researchers described it, “By linking virtual communities of interest to physical communities, new public spaces are created and opportunities for interaction between members are increased.” This description neatly matches the purpose of newspaper message boards, which as noted earlier, combine the two elements of virtual community as it is traditionally conceived: they consist of threaded conversations like those in Usenet but also are geographically rooted to help members of a local community engage with one another.

Reinforcement of social ties rather than creation of them

In general, research findings also support the idea that online networking can enhance or expand existing social connections but generally do not create such connections where none exist. A primary reason for this is that electronic communication forums do not automatically develop the trust and commitment required to call something a community.

A common finding about Internet communication, in fact, is that it helps to develop and extend existing relationships, such as using e-mail to keep in touch with distant family members. One investigation of the Blacksburg project said that its
network was used mostly as an adaptation of existing communication channels. A study that took a longitudinal approach to questions about computer access and usage, media attentiveness, political involvement, volunteerism, and social trust found that those who used the Internet most were more civically engaged than those who used it less, but also concluded this was because those individuals were inclined toward civic activism in the first place, not because Internet access made them so. Other studies controlled for the impact of demographic variables and similarly found that online activity helped to magnify pre-existing social capital, especially when the purpose of Internet use was information exchange.

**Research Questions**

To summarize the literature, online information exchange around specified topics of interest can develop an aspect of community, but investigations of whether online communities overlaid on geographic ones can improve offline community interaction have found mixed results. While this study certainly doesn’t supply the last word, it does contribute new information and a novel perspective to this unsettled question by investigating an approach to virtual community – the newspaper message forum – that combines elements of traditional online-only settings such as Usenet groups with those of “wired” geographic locales.

This project treats online newspapers’ message forums as a venue that merges the two articulations of virtual community as they traditionally have been investigated, and seeks to explore whether participation in forums could affect the geographic community served by the paper. The degree to which this might occur was investigated by addressing
general questions of whether forum participation (1) has an impact on participants’
cognitive understanding of their communities; and/or (2) leads to offline community
engagement. Because prior research shows that online communication tends to reinforce
existing social connections rather than create new ones, the influence will likely be
moderated by participants’ existing relationships. This means that measurements of
forum participants’ attitudes must be controlled to account for existing social tendencies.

The specific research questions used to evaluate this were:

- **RQ1**: Does participation in the forums provide participants with a better
  understanding of community issues?
- **RQ2**: Does participation in the forums prompt participants to change their
  thinking about community issues?
- **RQ3**: Does participation in the forums give participants ideas for solving
  community problems?
- **RQ 4**: Does participation in the forums prompt participants to get more involved
  in the community by attending events in reaction to something they learned about
  through the forum?
- **RQ 5**: Does participation in the forums prompt participants to get more involved
  in the community by contacting people offline in response to something they
  learned about through the forum?

**Method**

Information to address these research questions was gathered through a survey of
538 participants in message-board forums on Web sites affiliated with 80 daily
newspapers conducted in June and July 2008. Responses were widely distributed; the
median number of responses per site was 5 and maximum number of responses from a single site was 25. The survey responses were collected by posting a link to a self-administered Web-based survey in the message forum area of newspapers’ sites, a strategy similar to that employed by Ridings and Gefen in their investigation of Usenet groups. (Survey questions are in Appendix A.) To improve the response rate, the link was placed in the most active general news forum or thread that could be found at each site, and left active for approximately two weeks.

Because respondents were self-selected, the survey does not meet the criteria for a probability sample. However, in order to make the sample as representative as possible under the circumstances and remove some of the self-selection bias, the sites at which the survey link was posted were selected according to a stratified random sample of U.S. newspapers. The sample of sites to receive the link was determined by taking the list of approximately 1,400 U.S. daily newspapers from the 2006 Editor and Publisher Yearbook and separating them into four categories according to print circulation: larger than 100,000 circulation (n=101), 50,000 to 100,000 circulation (n=106), 25,000 to 50,000 circulation (n=188) and less than 25,000 circulation (n=1,023). The papers within each category were placed in random order and the researcher worked through the lists, visiting the papers’ Web sites, until 20 links to the survey were in place for each circulation group, for a total of 80 locations. The main reason for skipping papers, of course, was that not all sites have message forums. Additionally, in a few cases technical difficulties prevented making a post with the survey link. In each case where a posting was made, a message was sent to the site administrator with notification about the project and its purposes. A total of 275 sites were visited to complete the posting of 80 survey
links, which is very close to the 31 percent proportion of markets that have such features.  

The survey gathered basic demographic data about forum users as well as their patterns of site usage and information about community involvement. Results were analyzed with regression models that used the frequency with which respondents read the forums and made postings in them (measured on a 5-point scale) as predictor variables against scaled responses measuring agreement about whether users believed the forums improved their cognitive understanding of the community (RQ1, RQ2 and RQ3) or prompted their involvement in it (RQ 4 and RQ5). Hierarchical regression models were used to control for the impact of variables including demographics and other characteristics that measured respondents’ pre-disposed degree of community involvement, a technique similar to controls used in other studies. Whether respondents had personal contact offline with other forum participants also was used as a control variable because such relationships could increase a respondent’s likelihood of attending an event with someone or contacting them offline about something raised in the forum.

**Limitations**  
Because of missing responses the regressions did not include all 538 survey respondents, but ranged from 491 to 502 cases. Also, interpretation of the results is limited because the data are drawn from a non-probability sample. Thus, beta values and levels of statistical significance are reported as a measure of effect size for the models but cannot be interpreted as the likelihood of similar relationships existing in a larger population. Testing showed no problems with multicollinearity among the variables that would skew results; however some of the regressions were done on responses to a four-
point interval scale when it is recommended that such interpretations be made from scales having at least five points when using interval data measures.

**Findings**

**Demographics, readership and community involvement**

Forum users who responded to the survey were mostly longtime, older, male residents of their geographic communities. Male respondents outnumbered female ones 56.5 percent (n = 304) to 43.4 percent (n = 234). A substantial majority, 64.6 percent (n = 346), reported being 40 to 64 years old, and another 8.6 percent (n = 46) said they were 65 or older, making nearly three-fourths (73.2 percent) of the total respondents older than 40. Most of the respondents (85.7 percent, n = 459) lived in the community of the newspaper that published the link where they located the survey. This included 22.4 percent (n = 120) who described themselves as natives of the area who have never lived elsewhere; 28.4 percent (n = 153) who said they are natives and also live there now, but have lived elsewhere; and 34.7 percent (n = 186) who said they are not natives but are community residents now. About 74 percent of the respondents identified themselves as having lived in the area for more than 10 years, including 16.9 percent (n = 91) who have been residents for between 11 and 20 years and 57.2 percent (n = 307) who have been residents for more than 20 years. Clearly, there was a substantial overlap of the online community with a deeply rooted geographic one in the pool of survey respondents.

As a further indicator of convergence between online and offline communities, the survey asked whether forum participants knew any of their online correspondents personally in the offline world. About third of them (33.2 percent, n = 175)
acknowledged such a relationship and about a quarter (24.1 percent, n = 127) said they have become friends offline with someone whom they first met online.

Regarding community involvement, 41 percent of respondents (n = 219) said they were members of, or regular participants in, a religious community while 59 percent (n = 315) were not. A similar number, 41.8 percent (n = 217), reported membership in non-church community groups. Respondents were somewhat more engaged in volunteer work with only about a third (34.5 percent, n = 183) reporting that they never volunteer. Another third (33.4 percent, n = 177) reported spending one to five hours a month volunteering and the remaining 32 percent (n= 170) volunteer more than that.

Not surprisingly, survey respondents reported themselves to be more frequent readers of news online than in print. About 59 percent (n = 316) said they read news online every day, while only 35.9 percent (n = 191) reported reading the print paper every day. About 24 percent (n = 75) of those who reported reading online every day said they never read the print version. However, a cross-tabulation of these two categories discovered that about 22 percent of all respondents (n = 118), read both formats every day.

Survey respondents also reported themselves to be frequent readers of the forums, a finding that likely reflects some self-selection bias because individuals who are online most often were the ones most likely to see the survey link and respond to it. Two thirds of respondents – about 66.7 percent – reported they were regular readers of the forums, going in either once a day (27.1 percent, n = 145) or several times a day (39.6 percent, n = 212). But only a little more than one third made the same claims about posting, with 21.1 percent (n = 113) posting several times a day and 12.5 percent (n = 67) posting
about once a day. Cross-tabulating these results indicates that slightly less than a third of frequent forum participants are “lurkers” who read regularly but do not post nearly as often. Among the 356 respondents who said they read the forum once a day or more, 30.3 percent (n = 108) reported making posts either just a few times a month or less than once a month.

A substantial majority – more than three quarters – of respondents agreed that taking part in forums leads to better understanding of community issues, with 17.1 percent (n = 87) strongly agreeing and 59.9 percent (n = 305) somewhat agreeing. More than half said the forums offered useful ideas for problem solving, with 10.8 percent (n = 55) strongly agreeing and 47 percent (n = 239) somewhat agreeing. Slightly less than half said their thinking about issues had sometimes been changed by reading something in the forum, including 6.3 percent (n = 32) who strongly agreed and 43.3 percent (n = 226) who somewhat agreed. (Complete results in Table 1)

Regression comparisons

But finding answers to RQ1, RQ2 and RQ3 required going beyond the simple frequency tallies to these questions. This further evaluation used demographic characteristics along with frequency of print and online readership, frequency of forum reading and frequency of forum posting as predictor variables in hierarchical regression models against the level of agreement with each of the following statements from the survey:

- The conversations in discussion forums give me a better understanding of community issues (addressing RQ1).
- The conversations in discussion forums have sometimes changed my way of thinking about community issues (addressing RQ2).

- The conversations in discussion forums offer useful ideas for solving community problems (addressing RQ3).

Demographic and general readership variables (print and online) were entered in the first block of the model as control variables for the general understanding of the community that comes from living in it and conducting basic surveillance of the news; the variables of interest (forum reading and forum posting) constituted the second block.

For RQ1, control variables were not significantly related \( [F = 1.40 \text{ (6, 485 df)}, \ p = .215] \) to issue understanding. However, the final model with two forum-involvement variables was significantly related to improved understanding \( [F = 10.97 \text{ (4, 492 df)}, \ p < .001] \). The control block accounted for slightly less than 2 percent of the variance in issue understanding (increase in \( r^2 = .017 \)) while adding the forum-participation block accounted for an additional 7.3 percent (final model increase in \( r^2 = .073 \)). Forum readership (\( \beta = .156; \ p = .005 \)) and forum posting (\( \beta = .150; \ p = .007 \)) both were statistically significant contributors to the increase.

For RQ2, the control block was marginally related to the dependent variable of change in respondents’ thinking about issues \( [F = 1.89 \text{ (6, 486 df)}, \ p = .079] \). The final model including forum usage was highly significant, however \( [F = 5.01 \text{ (8, 484 df)}, \ p < .001] \). In this model the control block again accounted for about 2 percent of the variance (increase in \( r^2 = .023 \)) while the second block accounted for an additional 5.4 percent (final model increase in \( r^2 = .054 \)). One difference was that this time forum posting was the only significant contributor to the change (\( \beta = .213; \ p < .001 \)).
Similar results were found for RQ3 relating to forum participants getting ideas for solving community problems. Control variables again were unrelated \([F = 1.20 (6, 484 \text{ df}), p = .306]\) to the dependent variable. But once again forum usage made the final model highly significant \([F = 3.96 (8, 482 \text{ df}), p < .001]\), with forum posting \((\beta = .138, p = .015)\) contributing significantly to the result and forum reading making a marginal contribution \((\beta = .108, p = .057)\). The control block accounted for about 1.5 percent of the variance in the dependent variable \((\text{increase in } r^2 = .015)\) while the second block was responsible for an additional 4.7 percent \((\text{final model increase in } r^2 = .047)\). (Table 2 shows these three models.)

[TABLE 2 ABOUT HERE]

Three-block hierarchical regressions were used to test RQ4 and RQ5, with an initial set of control variables for demographics and community involvement (operationalized as church membership, number of community groups, and level of volunteer hours) and a second control set for offline relationships with other forum participants. Church membership and both of the “friendship” variables were entered as categorical dummy variables\(^{36}\) while community group involvement and volunteer hours were entered as interval variables.\(^{37}\) For RQ4, which tested whether forum participation would predict the tendency for a respondent to attend a community meeting or activity offline as a reaction to information obtained online, the demographics and community involvement control block was found to be significant \([F = 3.64 (7, 493 \text{ df}), p = .001, .049 \text{ increase in } r^2\] \) and the friendship control block was found to be extremely significant. \([F = 14.62 (9, 491 \text{ df}), p < .001, .170 \text{ increase in } r^2\] \) The final model with forum-usage variables was also significant \([F = 12.39 (11, 489 \text{ df}), p < .001, .008\] \).
increase in $r^2$. However, with an F-value lower than control model 2, it is clear the significance was left over from the powerful influence of the control variables rather than any additional contribution from forum usage variables. Neither of those was statistically significant in its own right, with forum reading having $\beta = -0.052$ ($p = .301$) and forum posting $\beta = -0.055$ ($p = .286$).

For RQ 5, testing whether forum participation was related to contacting people off-line as a reaction to information obtained online, the demographics and community involvement control block [$F = 3.79$ ($7, 494$ df), $p = .001$, $.051$ increase in $r^2$] and friendship control block [$F = 9.74$ ($9, 492$ df), $p < .001$, $.100$ increase in $r^2$] likewise both were found to be significant. Adding the forum-participation block again resulted in a significant model but one with a lower F value than the second control model [$F = 9.53$ ($11, 490$ df), $p < .001$, $.025$ increase in $r^2$]. Forum posting ($\beta = -1.77, p = .001$) was individually significant. (Models for RQ 4 and RQ5 are found in Table 3.)

[TABLE 3 ABOUT HERE]

**Discussion**

The results of this research indicate that involvement in the virtual community of message-board forums hosted by news organizations is associated with better understanding of the “real world” community – at least as perceived by respondents about themselves – but is not necessarily a predictor of greater involvement in that community. Greater participation in the forums – especially posting rather than just lurking – helps to predict a self-reported better understanding of community issues, changes in thinking about community issues, and access to ideas for solving community
problems. This relationship holds true even after controlling for the issue-understanding and problem-solving information that can come from living in a community and reading news about it online and in print, as illustrated by the regression models for RQ1, RQ2 and RQ3.

These findings about cognitive understanding of the community, however, must be interpreted in view of their being based on self-reports, which can be unreliable because respondents may say what they think the researcher wants to hear. Self-reported media exposure and usage also may not be as accurate as hoped. On the other hand, these results do correspond with other findings in the literature, such as the conclusion by one set of researchers that “individuals who use the Internet for information exchange probably encounter more mobilizing information and experience more opportunities for recruitment in civic life.” Before people can act upon ideas to improve their communities, they must know more about those communities and understand them better. The results of models exploring RQ1, RQ2 and RQ3 indicate that forum participation may contribute to this cognitive aspect of improving the offline community, or at least a belief by participants that they have better understanding of issues and problems. Engagement in the virtual community thus may contribute to enhancing the offline community by improving knowledge and understanding about it.

However, forum participation was not related to actual community involvement or social-capital-building activities that might extend from this greater understanding. More than half of the survey respondents (54.7 percent, n = 287) reported that on at least some occasion they had contacted someone offline about a community issue in response
to online discussion about it. A similar proportion (55.7 percent, n = 293) reported attending a meeting or event based on information obtained in a forum discussion.

Taken at face value, these numbers seem to imply a strong mobilizing influence on the part of the forums. But the contributions of the control variables, especially whether or not respondents’ offline relationships overlap their online ones, indicate that this behavior is related far more closely to existing social relationships and community involvement tendencies than it is to engagement with the online community. This echoes the findings of Jennings and Zeitner, who found that Internet users were more civically engaged, but only because they were already inclined toward civic activism.\textsuperscript{41} Forum posting, in fact, had a fairly strong inverse relationship to the tendency to contact someone offline about forum issues (β = -.159, p = .002), while reading and posting both were negatively correlated with attending an activity though not strongly so (β = -.052 and -.055; n/s). The same relationship was found in first-order correlations done without the control variables. This finding indicates that those who post more and read more are less likely to interact with people in the offline community, something that on first glance seems contradictory. However, this could be interpreted as evidence of online social connections replacing real-world ones, as described by Kraut et al.,\textsuperscript{42} and is a finding that warrants further investigation.

Conclusion

The findings of this research support that cognitive understanding of community issues is positively associated with level of involvement with newspaper-sponsored community message forums for many participants. Thus the forums may be a beneficial
activity that helps to improve understanding of the community – at least for those who participate. But the research does not indicate that this improved understanding leads people to get out and do more in the offline community based on their involvement in the online community.

These findings resonate with the general trend in the literature that indicates networked interactivity can enhance and reinforce existing tendencies toward civic engagement and social capital development in some circumstances, but does not necessarily create those phenomena where they did not previously exist. In similar fashion here, a tendency toward community action was not associated with forum participation even though cognitive engagement with community issues was. As it was colorfully described in one article, “there is little reason to presume that the Internet will make social butterflies out of homebodies.” Participation in newspaper forums apparently does not, either.

This correspondence with past research indicates that various theories of virtual community developed in other venues could be useful in predicting and explaining impacts of participation in the forums. The significance of this finding is rooted in message forums of online newspapers becoming a commonplace and accessible way for residents of a geographic community to interact virtually with one another. Something that was rare, expensive and complicated to create when it was tested in places such as Blacksburg and “Netville” is now fairly ubiquitous, as a service provided by many local newspapers.

To the degree that participation does contribute to users having an improved understanding of their communities, such forums hold the potential to bring into reality
some (but not all) aspects of the wired local communities envisioned and experimented with more than a decade ago. This suggests a new route by which newspapers may be able to articulate their traditional role of community building, via a tool that is coming onto the scene just as traditional bonds between the printed newspaper and its community are crumbling in the face of declining readership.
Table 1

Level of Agreement on Ability of Forums to Assist in Understanding Community, Thinking about Issues and Offering Ideas to Solve Problems

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The conversations in discussion forums</td>
<td>17.1%</td>
<td>59.9%</td>
<td>15.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>give me a better understanding of community issues.</td>
<td>(n = 87)</td>
<td>(n = 305)</td>
<td>(n = 79)</td>
<td>(n = 38)</td>
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<td>The conversations in discussion forums have</td>
<td>6.3%</td>
<td>44.3%</td>
<td>31.2%</td>
<td>18.2%</td>
</tr>
<tr>
<td>sometimes changed my way of thinking about community issues.</td>
<td>(n = 32)</td>
<td>(n = 226)</td>
<td>(n = 159)</td>
<td>(n = 93)</td>
</tr>
<tr>
<td>The conversations in discussion forums offer</td>
<td>10.8%</td>
<td>47.0%</td>
<td>26.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>useful ideas for solving community problems.</td>
<td>(n = 55)</td>
<td>(n = 239)</td>
<td>(n = 132)</td>
<td>(n = 82)</td>
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### Table 2
Hierarchical Regression Models for Relationship of Forum Activity and Community Knowledge Variables

#### Dependent Variables

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<th></th>
<th>Understanding Of Issues</th>
<th>Change Thinking About Issues</th>
<th>Gain Ideas for Problem Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RQ1</strong></td>
<td>n = 497</td>
<td>n = 498</td>
<td>n = 496</td>
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<tr>
<td><strong>RQ2</strong></td>
<td>(final betas)</td>
<td>(final betas)</td>
<td>(final betas)</td>
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</table>

#### Predictor Variables

**Block 1:**

**Control Variables**

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<th>Gain Ideas for Problem Solving</th>
</tr>
</thead>
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<td>.051</td>
<td>.14</td>
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<td>Native resident/not</td>
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<td>- .027</td>
<td>-.022</td>
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<td>Length of residence</td>
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<tr>
<td>Print news reading</td>
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<td>-.022</td>
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<td>.062</td>
</tr>
<tr>
<td>Block significance</td>
<td>F = 1.40</td>
<td>F = 1.90 †</td>
<td>F = 1.70</td>
</tr>
<tr>
<td>Block increase in $r^2$</td>
<td>.017</td>
<td>.023</td>
<td>.015</td>
</tr>
</tbody>
</table>

**Block 2:**

**Forum Use Variables**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Understanding Of Issues</th>
<th>Change Thinking About Issues</th>
<th>Gain Ideas for Problem Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forum reading</td>
<td>.156**</td>
<td>.034</td>
<td>.099 †</td>
</tr>
<tr>
<td>Forum posting</td>
<td>.150**</td>
<td>.213***</td>
<td>.138 *</td>
</tr>
<tr>
<td>Final model sig.</td>
<td>F = 5.95***</td>
<td>F = 5.01***</td>
<td>F = 3.96***</td>
</tr>
<tr>
<td>Increase in $r^2$ from control block</td>
<td>.073</td>
<td>.053</td>
<td>.047</td>
</tr>
</tbody>
</table>

† = p < .10  * p < .050  ** p < .010  *** p < .001
Table 3
Hierarchical Regression Models for Relationship of Forum Activity and Community Involvement Variables

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Attend event or meeting (final betas)</th>
<th>Contact someone about forum issues (final betas)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Block 1:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community ties</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.036</td>
<td>.067</td>
</tr>
<tr>
<td>Age</td>
<td>.011</td>
<td>.059</td>
</tr>
<tr>
<td>Native resident/not</td>
<td>.015</td>
<td>-.023</td>
</tr>
<tr>
<td>Length of residence</td>
<td>.016</td>
<td>-.070</td>
</tr>
<tr>
<td>Church membership</td>
<td>.024</td>
<td>-.025</td>
</tr>
<tr>
<td># community groups</td>
<td>.135**</td>
<td>0.136**</td>
</tr>
<tr>
<td>Volunteer hours</td>
<td>.043</td>
<td>0.066</td>
</tr>
<tr>
<td><strong>Block significance</strong></td>
<td>F = 3.64**</td>
<td>F = 3.79***</td>
</tr>
<tr>
<td>Block increase in $r^2$</td>
<td>.049</td>
<td>.051</td>
</tr>
<tr>
<td><strong>Control Block 2:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Online/offline friendships</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Know some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>forum members</td>
<td>0.170**</td>
<td>0.144**</td>
</tr>
<tr>
<td>Forum meeting led to offline friendship</td>
<td>0.260***</td>
<td>0.158**</td>
</tr>
<tr>
<td><strong>Block significance</strong></td>
<td>F = 15.33 ***</td>
<td>F = 9.74***</td>
</tr>
<tr>
<td>Block increase in $r^2$</td>
<td>.170</td>
<td>.100</td>
</tr>
<tr>
<td><strong>Block 3:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Forum Use Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forum reading</td>
<td>-0.052</td>
<td>0.011</td>
</tr>
<tr>
<td>Forum posting</td>
<td>-0.055</td>
<td>-.177**</td>
</tr>
<tr>
<td><strong>Final model significance</strong></td>
<td>F = 13.01 ***</td>
<td>F = 9.53***</td>
</tr>
<tr>
<td>Increase in $r^2$ from control blocks</td>
<td>.008</td>
<td>.025</td>
</tr>
</tbody>
</table>

† $p < .10$  * $p < .050$  ** $p < .010$  *** $p < .001$
Appendix: Survey Questions

Note: This is a partial list of the survey questions that respondents saw, reflecting only questions relevant to the present research. Several other questions related to respondents’ views toward uncivil postings and anonymity also were asked for use in another project.

Thank you for clicking through on the link to take this survey. As mentioned in the announcement in the discussion form, it is completely non-commercial and anonymous. It consists of about 30 multiple-choice response items that will take less than 5 minutes to complete. It is not sponsored by or affiliated with the newspaper where the link was posted. The site where you found it is one of about 80 sites nationwide with such links, posted by a college journalism professor who created this survey as part of a research project about online journalism.

Your willingness to take part is much appreciated.

PART 1: Demographics

Gender:
Male
Female

Age
17 or younger
18-24
25-39
40-64
65 or older

Which of the following best describes your connection to the home community of the newspaper that publishes the message boards where you found the link to this survey:

I am a native of the area and have never lived anywhere else
I am a native of the area but currently live somewhere else
I am a native of the area and live there now, but lived somewhere else for part of my life
I am not a native of the area but live there now
I do not now live in that area and never have
How long have you lived in the community described in the previous question?
   Never
   Less than 1 year
   1 to 5 years
   6 to 10 years
   11 to 20 years
   More than 20 years

How frequently do you read the print version of the newspaper whose site hosts the message boards where you found the link to this survey
   Every day
   A few times a week
   A few times a month
   Never

How frequently do you read the online news reports from the newspaper site where you found the link to this survey?
   Every day
   A few times a week
   A few times a month
   Never

About how frequently do you read forum discussions
   Less than once a month
   A few times a month
   A few times a week
   About once a day
   Several times a day

About how frequently do you make postings in forum discussions
   Less than once a month
   A few times a month
   A few times a week
   About once a day
   Several times a day

Are the forums you participate in moderated by community volunteers or staff members of the paper?
   No
   Yes
   Not sure
PART 2: Community Involvement

Are you a member of/regular participant in a church or religious group?
   No
   Yes

Are you a member of/regular participant in one or more non-religious community groups?
   No
   Yes

If you answered “yes” to Question 2, approximately how many groups do you participate in?
   1
   2
   3
   4
   5 or more

Approximately how many hours per month do you spend in volunteer activities within the community (including church-based and non-religious activities).
   Zero (I don’t volunteer)
   1 to 5
   6 to 10
   11 to 20
   21 to 40
   More than 40

PART 3: Relationships with online community members

How many of the people whose comments you read most frequently and respond to most frequently on the message forums do you know personally in the offline world?
   None of them
   Some of them
   Most of them/all of them

Have you ever met someone in the offline world with whom you first became acquainted through an online contact on the newspaper site you visit most frequently?
   No
   Yes
If so, which of the following best describes your offline relationship

- Close personal friend
- Casual personal acquaintance
- Acquaintance with a common interest (e.g., hobby, community activity)
- Business acquaintance
- Other type of acquaintance (not covered by categories above)
- We no longer have any contact offline

Please indicate your level of agreement with the following statement:
The people whose comments I read in the online forums but don’t know personally seem like the type of people I would be friends with in the offline world as well.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

How many times has information you learned from a message forum or a suggestion from another participant led you to contact someone in the offline world with a letter, phone call or e-mail about some issue or topic?

- Never
- 1 or 2 times
- 3 to 5 times
- 6 to 10 times
- More than 10 times

How many times has information you learned from a message forum or a suggestion from another participant led you to do something in the offline world such as attend an event or meeting?

- Never
- 1 or 2 times
- 3 to 5 times
- 6 to 10 times
- More than 10 times

Please indicate your level of agreement with the following statements:

The conversations in discussion forums give me a better understanding of community issues.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
The conversations in discussion forums have sometimes changed my way of thinking about community issues.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

The conversations in discussion forums offer useful ideas for solving community problems

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

That completes the survey. Thank you very much for taking your time with it.
References

3 Howard Rheingold, The virtual community: finding connection in a computerized world. (Cambridge, MA: MIT Press, 1993.)
4 The term is in quotation marks because it is borrowed from Keith N. Hampton and Barry Wellman, “Netville Online and Offline: Observing and Surveying a Wired Suburb,” The American Behavioral Scientist 43: 3 (November/December 1999): 475-492.
8 Hampton and Wellman, “Netville Online and Offline.”
13 Ridings and Gefen, “Virtual Community Attraction.”
21 Blanchard and Horan, “Virtual communities and social capital.”
Virtual Communities and Newspaper Message Forums


23 Hampton and Wellman, “Netville Online and Offline,” 476.


25 Kling, “Synergies and Competition.”


27 Hopkins et al., “Social Capital and Community Building.”


31 Ridings and Gefen, “Virtual Community Attraction.”


33 The frequency choices in the survey questions about level of forum activity were: 1 = Several times a day; 2 = About once a day; 3 = A few times a week; 4 = A few times a month; 5 = Less than once a month

34 RQ1, RQ2 and RQ3 used a 4-point agreement scale of 1 = Strongly agree; 2 = somewhat agree; 3 = somewhat disagree; 4 = strongly disagree for the dependent variable. RQ4 and RQ5 used a 5-point frequency scale of how often the respondents had engaged in the behaviors of contacting someone or attending an event, with 1 = Never; 2 = 1 or 2 times; 3 = 3 to 5 times; 4 = 6 to 10 times; and 5 = More than 10 times.

35 For example, a similar control procedure was used in Matei, “The Impact of State-Level Social Capital.”

36 All three dummy variables were coded no = 0, yes = 1. In the survey, respondents actually were offered three responses to the question “How many of the people whose comments you read most frequently and respond to most frequently on the message forums do you know personally in the offline world?”, those responses were “None of them,” “Some of them,” and “Most of them/all of them.” However, only a tiny fraction of respondents – about 1.5 percent (n = 7) – answered “Most of them/all of them.” So those answers were combined with the “Some of them” reply (32.6 percent, n = 164) to create a dichotomous variable of knowing some respondents offline vs. not knowing any.

37 The number of community groups was entered as an interval variable ranging from 0 to 5, where 0 = membership in no groups up to 5 = membership in 5 or more. Volunteer hours were coded similarly, ranging from 0 = “don’t volunteer” to 5 = more than 40 hours a month spent in volunteer efforts.


40 Shah, Kwak and Holbert, “Connecting and Disconnecting With Civic Life.”

41 Jennings and Zeitner, “Internet Use and Civic Engagement.”

42 Kraut et al., “Internet Paradox.”
