

Local Groups Online:

Formal and Informal Public Participation in Governance

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Abstract

In prior case study research we developed models of some of the social and civic effects of community computing based on case studies of households in Blacksburg, Virginia, home of the community network known as the Blacksburg Electronic Village (the BEV). The path models showed that, among other factors, people's affiliations with local formal and informal groups had a significant indirect effect on their community involvement. In this paper we focus on the role of groups in explaining citizen participation in local civic and political life. We further integrate the role of information technology and communication on the group memberships' participation in local civic and political life. We present findings from random and stratified household survey data collected between 2002 and 2005 in the town of Blacksburg and surrounding Montgomery County. The data show that people who are affiliated with local groups are more active and involved in local political and civic life. Members of groups report increases in communication online with other group members, and more involvement in group activities over time. Finally, the majority of group members also report that their group(s) talk at least informally about politics; almost half of these groups takes a stand on issues.

Introduction

The human group is one of the most fundamental building blocks of society. Through group affiliation, people are able to coordinate action and accomplish more complex tasks than would be possible by a lone individual. Group participants working together are involved in an ongoing and continuous set of exchange activities (Homans, 1950). Social exchange theory claims that being affiliated with a group is in itself a form of exchange. At a minimum, a person is giving up their time in order to participate in the processes and activities of a specific group. People affiliate with others who share with them some common interest, activity or identity. These commonalities can be as fundamental as family and extended kin, to shared interest in activities (such as, playing a sport, a musical instrument or cards) or ideas (such as politics or religion, among many others).

Social participation involves two or more persons, mutually pursuing a common objective, distinct from other social activities in space and time (Edwards and Booth, 1973). The types of objectives participants pursue may be instrumental or expressive (and are often a combination of the two). Instrumental activity goals are directed outside the group, such as influencing policy through an advocacy group. Expressive activity goals are directed within the group, such as getting together to dance, eat or play cards. Many groups have a combination of instrumental

and expressive goals. While participants may enjoy getting together to play baseball, for example, they also occasionally attempt to influence policy by negotiating with local government for more resources, such as, fields and maintenance support. In these occasional instrumental activities, groups act as political players in their communities. Most people engage in local politics in these ad hoc and informal ways, such as when a local law impinges on their personal circumstances (“not in my backyard”). Instrumental groups tend to seek and cultivate membership from high resources individuals that might help the group accomplish its goals, such as high education, business success or political contacts. Expressive groups seek members who are similar in ways that constitute the identity of the group, such as social background, age, sex, talents or interests. Instrumental-expressive groups have a combination of these features.

Only a minority of any given population plays an extremely active role in the larger political society, such as organizing protest movements or demonstrating against local or national policies. Reasons for political participation include stimuli, personal factors, including social position, and environmental factors (Milbrath and Goel, 1982; Verba, Schlozman and Brady, 1995). Modern social organization is the application of rationality and authority -- what Lucian Pye (1961) refers to as organizational technology -- to human beings and social groups. Rationality and authority can take the forms of democracy or totalitarianism. The difference is in the political culture of the citizens: are they active participants in decision-making or are they passive subjects? Are they treated as one or the other and do they perceive their role as one or the other? In their study of political culture of democracy and the social structures and processes that sustain it, Almond and Verba (1963) emphasized the importance of organizational membership in cultivating civic competence. As Putnam (2000) succinctly states, voluntary associations inculcate democratic habits and serve as forums for thoughtful deliberation over vital public issues (2000, p. 339). The emphasis on opportunities for participation of individuals in community power through community organizations is a pluralist – as contrasted with an elite -- approach to community power (Dahl, 1961; Putnam, 2000).

Democratic forms of government seek the broadest possible participation and representation of the populace as possible. In large, complex modern societies it is extremely difficult to have direct democracy. Groups, therefore, play an essential role in aggregating individuals’ common interests and converting their collective will to collective action.

Prior Research

Prior research has shown that people who identify with a group participate more actively in civic and political life (Verba and Nie, 1972; Milbrath and Goel, 1982; Putnam, 2000). Group identification gives a sense of belonging and in some cases (especially instrumental groups) a potential means to greater political power. In the US, a variety of studies have shown that generally over half of the population is affiliated with at least one voluntary association (Almond and Verba, 1963; Verba and Nie, 1972; Edwards and Booth, 1973; Milbrath and Goel, 1982; Putnam, 2000).

There is substantial agreement between local and national studies regarding social determinants and correlates of group membership. Affiliation is directly related to social class, length of residence, gender, and stage in life cycle (Hyman and Wright, 1971; Babchuk and Booth, 1973,

Stueve and Gerson, 1977; Milbrath and Goel, 1982, among others). Stage in a person's life cycle refers to whether they are in their school years, single, married, married with children, and whether the children are minors or adults. Life cycle stages have associated with them changes in social roles and social groups.

People who are members of voluntary associations and who are informed about affairs of an area are more active politically than individuals who participate only in local neighborhood activities or in none at all. Association members: 1) vote more often; 2) take positions on local government issues; 3) try to persuade others with respect to local government issues; and 4) attend public meetings dealing with local government issues.

Groups and IT Use

In one of the earliest national studies of groups and information technology use, Katz and Aspden (1997) found that long time Internet users (three or more years) reported belonging to the most community organizations – 27% to one organization and a further 22% to two or more (49% total). They found no differences between Net users and non-users on measures of affiliation with religious organizations or the number of religious organizational affiliations. However, Internet users were affiliated with more leisure organizations than non-users.

Respondents who had not heard of the Internet, and recent adopters (in the past year, that is between 1994 and 95) reported they belonged to the fewest community groups. Of the non-users who were aware of the Internet, 23% reported belonging to one community organization and 14% to two or more community organizations. Of former users, 24% reported belonging to one community organization and 14% to two or more organizations.

Some later studies have found similar trends as these early results (Kavanaugh and Patterson, 2001; Horrigan, 2001; Scheufele and Nisbet 2002; Horrigan, Garret and Resnick, 2003, among others). Horrigan's study (sponsored by the Pew Internet and American Life) found that a substantial majority of American Internet users access the Internet to explore groups. Over 80% of these users stay in regular contact with at least one group to cultivate relationships and discuss issues.

The fundamental research questions this paper addresses are: Is there evidence that groups provide a forum for political discussion among members, either formally or informally? What role is information technology playing in contributing to pre-deliberation stages of democratic processes, such as communication among members, raising awareness, educating and supporting discussion, and increasing member involvement in group activities?

Research Method

This paper specifically reports on findings from two research projects using household survey data conducted and analyzed with support from the National Science Foundation. The earlier household survey (two rounds in 2002 and 2003) was part of a larger study investigating community computing in Blacksburg and Montgomery County, entitled Experiences of People, Internet and Community (EPIC). The more recent survey data (first of two rounds conducted in May 2005) is also part of a larger study of digital government (DG) at the local level.

The EPIC survey was a printed questionnaire and the digital government (DG) survey was administered by telephone interview. The questionnaires in both studies have many similar questions, especially about group membership, Internet use and community involvement, as well as measures to assess local political participation and communication behavior. In designing the surveys, we have used validated and reliable questions from prior studies, such as the HomeNet study (Kraut, 1999) and the Blacksburg Electronic Village research (Kavanaugh and Patterson, 2001) and political research that identifies factors affecting participation at the local level, such as, political and collective efficacy; political interests, activities, attitudes, and knowledge; interpersonal discussion networks; affiliation with formal community groups; information and communication technology use, and demographic factors (Almond and Verba, 1963; Verba, and Nie, 1972; Verba, Schlozman and Brady, 1995; Tsagarousianou, Tambini, and Bryan, 1998; Putnam, 2000; Hague and Loader, 2003; Bimber, 2003).

The EPIC sample was stratified (100 households in both rounds in 2002 and 2003) according to Internet use, education and location (Blacksburg and Montgomery County, 50% of each location). The DG sample was a simple random sample using a 17-minute interview completed by 717 households in May 2005. All respondents are adults aged 18 and above. In this paper we are focused the respondents' affiliation with local groups, the modes of communication used by each of the groups with which the respondent is affiliated (e.g., face-to-face, telephone, postal mail, email, listserv, web), the level of involvement the respondent has in each group (attends, donates money, volunteers, holds a leadership position). These questions are the same for all three surveys. In the digital government telephone survey, we further asked for each group whether political items were ever formally included on group meeting agendas, whether people at least informally discussed politics at their group meetings, and whether the group ever takes a stand on any local or national issues.

We listed seven modes of communication in the questionnaires (face-to-face, telephone or postal mail, person-to-person e-mail, email discussion or listserv, newsgroup, chat room, and online bulletin board or discussion board) and asked the respondents to check all that apply for each organization to which they belonged. These modes of communications were further classified as two categories, namely, traditional communication for the first two modes and the rest five modes as electronic communication.

For the EPIC questionnaire we asked respondents to list all the local groups to which they belonged. In the digital government survey we asked them the total number of formal groups to which they belonged, but we asked detailed information about only three of the groups due to time constraints of a telephone interview. In each of the three surveys, we asked respondents to list by name each of the local formal groups with which they were involved. We later coded these groups into four main categories:

- (1) Civic or Politic organizations
- (2) Religious/ Charitable or Support organizations
- (3) Educational or professional organizations
- (4) Social or recreational organizations.

Respondents who reportedly belonged to the specific type of organization in both rounds were identified as the members of that organization. Respondents who joined in or dropped off organizations in either round were not counted as members in our analysis. The membership in organization was not exclusive, i.e. some respondents belonged to more than one organization.

Results

We analyzed EPIC data to test relationships between group membership and socioeconomic status (SES), demographics, length of residence, and life cycle stage. We calculated socioeconomic status as the sum of education and income. Significant correlations between the number of formal organizations the subject belonged to and selected variables are shown in Table 1.

Table 1. Group Membership and SES, Length of Residence, Gender

Variables / Questions	Correlations (N)			
	Round 1	p	Round 2	p
Social Class	.325 (145)	.000**	.213 (134)	.013*
Years lived in local community	NS		.188 (143)	.025*
Gender	NS		.184*	

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

In both rounds of EPIC households there was a moderate relationship between respondents' social class and the number of formal organizations they belonged to. In other words, the respondents' with higher education and income levels tended to associate with a greater number of formal organizations. In round two data, respondents who belonged to more organizations tended to have resided longer in the community, and women were more likely than men to belong to organizations. The gender finding is largely due to the predominance of affiliations being with religious organization (specifically, church), the predominant type of group.

Membership in Type of Organization

Both round 1 and round 2 data suggest that the highest percentage of sample (about 63%) belonged to religious/ support/ charitable groups as shown in Table 2. They also reported to be most involved in their organizations. The lowest percentage (about 24%) belonged to Educational/ Professional organizations and they reported to be the least involved in their organizations.

Table 2 . Percentages of Sample Belonging to Each Type of Formal Organization

Type of organization	EPIC round 1 N=156	EPIC round 2 N= 143	^a DG N=717
Percent of sample belongs to NO groups	17.9 %	19.6 %	38.8 %
% of sample that belongs to one or more...			
Civic/Political groups	32.1	33.6	18.7
Religious/charity/support groups	65.4	60.1	42
Educational/Professional groups	25	23.10	8.6
Social/ Recreational groups	41	33.6	17.9

Notes:

^a The percentages of digital government data are lower compared to others partly due to partial information available in digital government data file. In the EPIC round 1 and 2 data, the number of each type of formal organization are counted across *all* the formal organizations respondents belonged to, which ranged from 0 to 8 for round 1 and 0 to 9 for round 2. Never the less, in digital government data, the information on type of organization is only available for the first three formal groups. The number of formal groups respondents belong to in digital government file ranged from 0 to 6 with one outlier 12. Hence, information regarding type of formal group for the fourth to sixth formal groups of 29 respondents is not available.

It should also be noted that among the three data sets, DG data set has the highest percentage of sample (38.8%) that is not affiliated with any formal groups whereas only 17.9% and 19.6% in EPIC round 1 and 2, respectively.

In the digital government (DG) survey, there are 713 respondents who have reported valid number of formal organizations they belonged to. About 39% of the whole sample reported that they do not belong to any formal organizations; 35% belonged to only one organization; and 25% belong to more than one formal organization. The number of formal organizations respondents belonged to range from 0 to 6 with one outlier 12. The mean is 1.02 (excluding the outlier).

Communication in different types of groups

There were some significant changes in the responses of round 2 of EPIC data compared to those of round 1. One of the interesting findings is that members of all formal organizations were likely to use more electronic communication modes over time (more in round 2 than in round 1). Respondents' reported answers to some questions regarding activities, interest, and Internet usage in round 2 that were significantly different from those in round 1. The differences were found on different questions for members of different types of organizations (see Table 3).

The members from all four types of organizations used more communication modes (both electronic and traditional) in EPIC round 2 than round 1. The increase in electronic communication mode was more noticeable in round 2 than in round 1. The average number of electronic communication modes reported by members from social organizations was the highest whereas the average number of traditional communication modes reported by the members from religious/ support/ charity was the highest.

Table 3. EPIC Groups Changes over time by Different Types of Organizations

^a Members from Different Groups	Variables used in paired t tests	Mean values for R 1 & 2 (SD)	P values	Valid N ^b
All Groups Combined	Electronic communication	0.7281 (0.69) 1.0304 (1.13)	.002**	115
	Group Involvement	2.3883 (0.97) 2.6313 (1.45)	.044*	115
	Active Participation	1.0002 (0.60) 1.3705 (0.92)	.000**	115
Civic Groups	All Group communication	2.1962 (0.88) 3.0821 (0.79)	.000**	26
	Electronic Communication	0.7212 (0.60) 1.3756 (0.79)	.002**	26
	Online Civic Activities	2.7083 (1.00) 2.9635 (0.92)	.04*	24
	Activism	2.7782 (0.67) 2.9564 (0.65)	.059?	26
	Community Participation	3.1293 (0.53) 3.2635 (0.48)	.036*	26
Religious Groups	All Group communication	2.3578 (1.1) 2.7679 (1.4)	.014*	79
	Electronic Communication	0.6992 (0.83) 1.0833 (1.25)	.005**	79
	Group Involvement	2.6899 (1.06) 3.2869 (1.4)	.000**	79
	Active Participation	1.1388 (0.69) 1.7416 (0.97)	.000**	79
Education/Work Groups	Electronic Communication	0.7402 (0.72) 1.4216 (1.1)	.028*	17
	Online Political Activities	1.2857 (0.33) 1.4643 (0.41)	.022*	14
	Social Engagement	2.9559 (0.70) 3.2206 (0.68)	.046*	17
Social Groups	All Group communication	2.4607 (1.04) 2.8667 (1.04)	.021*	40
	Electronic Communication	0.9857 (0.69) 1.275 (0.92)	.051*	40
	Group Involvement	2.3827 (0.94) 2.8771 (1.15)	.01**	40
	Active participation	1.0372 (0.63) 1.5813 (0.87)	.000**	40

?p approaches significant level

* p < .05

** p < .01

Notes:

^a Members of each type of organizations were defined as the subjects who belong to the same type of organizations both in round 1 and round 2. (i.e. subjects belong to the organization either in round 1 or round 2 were not counted as members in this analysis).

^b Although there were 156 subjects in the EPIC round 1 survey, 19 subjects dropped out in round 2. (Six new cases were added in round 2; hence, the sample size of round 2 became 143). There are 137 cases in the merged file in which each case has measures on both round 1 and 2. Twenty-two subjects reported that they did not belong to any formal organization in round 1.

Thus, over time we see the following significant changes:

- **Members of civic/ politics organizations** were likely to be more involved in on line civic activities such as using Internet to get local news, national and global events; participate more actively in local community activities.
- **Members of religious, support, and charity organizations** were likely to be more active in their organization activities; use Internet more often for commerce activities such as buying and selling product, service, stock, bonds, using online banking, making travel reservations.
- **Members of educational and professional organization** were likely to use Internet more often for political activities such as discussing politics, sending email to and receiving email from a government officials; involve in social engagement activities such as helping friends and neighbors.
- **Members of social organization** were likely to involve more in their organization activities; more interested in computer related activities such as playing computer games, sending and receiving emails from others.

In the DG survey, we asked respondents to provide detailed information about only three of the formal groups to which they belonged. We summarize below the information from respondents for each of the three groups, where provided. We do not have changes over time for the DG groups since this is the first round of data in this sample.

Sixty percent of the whole sample, 431 cases, reported the name of the first formal organization (first choice of formal group) they belonged to. Out of these 431 respondents, 62% belong to religious/charitable/support organizations, 18% belong to civic/politics organizations, 14% belong to social/ recreational organizations, and 6% belong to educational/ professional organizations.

Twenty-five percent (179 cases) reported the name of a second formal organization. Among these 179 respondents, 36% belong to social/ recreational organization, 33% belong to civic/politics organization, 18% belong to religious/charity/support, and 13% belong to educational/ professional groups.

Ten percent (72 cases) reported the name of a third formal organization. Among these 72 respondents, 25% belong to social/recreational organizations, 25% belong to educational/professional organizations, 24% belong to civic politics organizations, and 17% belonged to religious/charitable/support groups.

Political Discussion by Groups in DG Survey

There are 414 valid cases on the first formal group responses. Among these 414 respondents, about one fourth (26%) reported that their first formal group has meetings on political topics discussed formally but more than two third (68%) reported that their first formal group chat informally about politics or government. About 45% said their first formal group took a stand on a local or national issue. (NB: the valid cases 414 reduced slightly (413 & 404) on the latter two questions. It is also the case in the responses of second & third formal organizations.)

There are 176 valid cases on second formal group responses. Among these 176 cases, 26% reported that their second formal group discuss formally about politics at the meetings, 61% reported that the group chat or informally discuss about the politics, and 40% said the group take a stand on local or national political issues.

There are only 73 cases have valid answer on third formal organizations. Among them, 38% reported that their third formal group discuss about politics formally at the meetings, 70% reported that the group chat or informally discuss about politics, and 49% said the group took a stand on local/ national political issues.

There is a significant relationship between group’s involvement in politics and type of group (organizations) for the respondents’ first formal group. The observed frequency of civic/politics group members and education/professional group members who reported that their group have formal political topics discussion/ informal chat on politics are higher than expected frequency (the frequency occurred by chance or if the two factors –involvement & type- are not associated) whereas those of religious/charity/support group members and social/recreational groups members are lower in cross tables from chi squared test. Although the relationship between group involvement and type of group are significant on the first group’s taking a stand on local/national issue, the pattern is different from previous two activities. The observed frequency of civic/politics group members and religious/ charity/support group members are higher than expected frequency whereas those of education/professional group members are not different and social/recreational group members are lower.

In the responses on the second formal group, the significant relationship between the group involvement in politics and type of group is found in having formal discussion on political topics and informal chat about politics or government. Whether the group takes a stand on local/national issue or not does not depend on type of organization. The observed frequencies of all groups except social/recreational group are higher than expected frequency of respondents who reported that the group has formal discussion on political topics. The expected frequency of religious/ charity/support group members who reported that their group chats informally about politics/government is higher than observed frequency whereas those of other three group types are about the same or slightly lower than expected.

The two factors (group involvement in politics and type of groups) are not related in the responses of third formal group.

The strength of association (Cramer’s V values), significant levels, and valid number of cases are reported in Table 4.

Table 4. The significant association between group political activities and group type

Group Involvement in Politics	Name of formal Group	Cramer’s V (N)
Have formal discussion on politics	First formal group	0.21** (411)
	Second formal group	0.22* (174)
Have informal chat on politics/government	First formal group	0.14* (410)
	Second formal group	0.21? (171)
Take a stand on local/national issue	First formal group	0.15* (400)

*p<.05, ** p<.001 ?p=.053

Group communication modes and its relationship to type of group in DG Survey

There are 435 valid responses to the communication modes used to communicate among the members of the first formal group. The percentage of these 435 respondents who reported that this group used the given communication modes are:

- 94% used face to face communication,
- 80% used telephone,
- 65% used postal mail,
- 65% use email or listserv,
- 11% use online discussion,
- 43% has group website
- 5% used other communication modes (such as organization news paper/magazines, bulletin board, radio, video conferencing, online memo, flyers, cards & visits, fax) that are not listed in the questionnaire.

The significant associations are found between the type of the first group and use of telephone, use of postal mail, and listserv. The observed frequency of religious group is higher than the expected frequency of using telephone where as those of civic/politics members are lower. The observed and expected frequencies of other two groups are not much different. Similarly, the observed frequency of religious group is higher than expected in use of postal mail and social/recreational group's observed frequency is lower than expected. Other two groups' observed and expected frequencies are slightly different (less than 5%). On the other hand, observed frequency of religious group is lower than expected frequency whereas those of other three groups are higher than expected in the use of email/listserv. In short:

- more members of religious group use telephone, postal mail, and less often use email/listserv.
- fewer members of civic/politics group use telephone and fewer members of social/recreational group use postal mail.
- All the groups (except religious group) members use email/listserv more than expected if these two factors (type of group & communication mode) were not related.

The strength of associations, significant level, and valid number of cases are reported in Table 5.

Table 5. Group communication mode and type of the first formal group

Communication Mode	Cramer's V (N)
Telephone	0.20** (431)
Postal mail	0.19** (431)
Email/listserv	0.22** (431)

*p<.05, **p<.01

There are 181 valid responses to the communication modes used to communicate among the members of the second formal group. The percentage of these 181 respondents who reported that this group used the given communication modes are:

- 915 use face to face communication
- 73% use telephone

- 61% use postal mail
- 70% use email/listserv
- 10% use online discussion
- 46% have group website
- 5% have other communications that are not listed in the question

The significant associations between use of communication mode and type of organization are found for face-to-face communication mode, email/listserv, and online discussion. The observed frequencies of religious group and education/professional group are slightly higher than expected frequencies whereas civic/politics and social/ recreational are slightly lower on face-to-face communication. For email/listserv communication mode, observed frequencies of civic/politics group and religious group are lower than expected frequency whereas those of education/professional group and social/recreational group are higher. The observed frequency of education/professional group is higher than expected in the use of online discussion but those of other three groups are about the same of lower than expected frequency. In short:

- more members of social/recreation group and fewer members of civic/politics group use face to face communication mode
- fewer members of civic/politics and religious group use email/listserv communication mode and more members of education/professional group and social /recreation group use email/listserv communication mode
- more members of education/professional group use online discussion communication mode.

The strength of the associations, significance level, and valid number of cases are reported in Table 6.

Table 6. Group communication mode and type of the second group

Communication Mode	Cramer's V (N)
Face to face communication mode	0.22* (178)
Email/listserv communication	0.24* (178)
Online discussion communication mode	0.27** (178)

*p<.05, **p<.01

There are 77 valid responses to the communication modes used to communicate among the members of the third formal group. The percentage of these 77 respondents who reported that the group used the given communication modes are:

- 88% use face to face communication
- 70% use telephone
- 56% use postal mail
- 66% use email/listserv
- 14% use online discussion
- 42% has group website
- 3% use other communication mode not listed in the questionnaire

Association between group communication mode and type of the third group is not significant on any of the communication modes. The association approaches to significant level ($p=0.57$) for the postal mail in which the observed frequencies of civic/politic group and education/professional group are higher than expected whereas those of other two groups are lower than expected.

Other group activities and Type of organizations

In the responses to the first formal group of 435 respondents,

- 85% of respondents are official members of the group
- 82% attend group meetings regularly
- 74% perform volunteer work
- 33% hold the leadership position
- 90% contribute money

There is a significant association between the activities and type of organization in being an official member of the group (Cramer's $V=0.15^*$, $N=431$), regular attendance of meetings (Cramer's $V=0.19^{**}$, $N=431$), and money contribution (Cramer's $V=0.28^{**}$, $N=431$). The observed frequency of civic/politics group and education/professional group are higher than expected in being an official member of the group whereas those of other two groups are lower. On the other hand, the observed frequency of religious group is higher than expected on regular attendance of group meeting and money contribution to the group whereas those of other three groups are lower.

In the responses to the second formal group of 177 respondents,

- 83% are official members of the group
- 79% attend group meetings regularly
- 78% perform volunteer work
- 30% hold the leadership position
- 82% contribute money to the group.

The significant association between the activities of type of group is found on the regular attendance of group meeting (Cramer's $V=0.23^*$, $N=177$). The observed frequencies of religious group and social/recreational group are higher than expected whereas those of other two groups are lower.

In the responses to the third formal group of 77 respondents,

- 83% are official members
- 76% attend group meetings regularly
- 70% perform volunteer group work
- 29% hold leadership position
- 85% contribute money.

Association between type of group and group activities is not significant on any of the activities for the third formal group.

Correlates of Informed Group Members

We tested the hypothesis from prior studies that people who are members of voluntary associations and who are informed about affairs of an area are more active politically than individuals who participate only in local neighborhood activities or in none at all. Using EPIC data, we calculated the variable ‘Informed Member’ as the sum of number of organizations the subject belonged to combined with a composite measure of how well the subject was informed about the local community. Respondents who reportedly belonged to formal group(s), kept up with local community news, and felt that they knew what was going on inside and outside of the local community were defined as Informed Member. The correlations between the measure of Informed Member and selected variables reflecting political activities are presented in Table 7.

Table 7. Informed Member and Political Activities

Variables / Questions	Correlations (N)			
	Round 1	p	Round 2	p
Are you a registered voter?	NS		.211 (142)	.012*
Vote in the last presidential election?	.203 (156)	.011*	.307 (143)	.000**
Vote in the last municipal election?	.238 (154)	.003**	.361 (141)	.000**
Vote in the last congressional election?	.218 (156)	.006**	.355 (142)	.000**
Improve things in the community.	.385 (156)	.000**	.372 (142)	.000**
Work to bring change to the community.	.457 (156)	.000**	.471 (142)	.000**
How active and involved	.603 (146)	.000**	.540 (140)	.000**
Spend time with community work	.488 (155)	.000**	.328 (143)	.000**
Attend a political meeting	.253 (155)	.001**	.288 (141)	.001**
Attend a local group meeting	.402 (153)	.000**	.434 (141)	.000**
Involved in local issues since online	NS		.202 (118)	.028*
Involved in local community since online	.320 (126)	.000**	.367 (118)	.000**
Obtain local political information	.345 (126)	.000**	NS	
Discuss politics	.215 (156)	.007**	.195 (141)	.02*
Discuss Politics using internet	.193 (126)	.03*	NS	
Attend public meetings	.504 (151)	.000**	.293 (142)	.000**
Attendance at group meetings since online	.239 (125)	.007**	.203 (117)	.028*

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

All positive correlations between informed membership and political activities support the hypothesis that people who are members of voluntary associations and who are informed about affairs of an area are more active politically than individuals who participate only in one group or in none at all. Analysis of data from both rounds of EPIC data supported that informed members of formal organizations were more likely to vote, discuss politics, attend local political meetings, have ideas for improving the community and work to bring about change in the community. Informed members of groups were also more likely to use the Internet to obtain local political information and to discuss politics.

Organizational Affiliation and Political Participation

Respondents with a greater number of group affiliations were also more politically active and involved. These included higher measures on voting behavior (being a registered voter, voting in the last presidential, municipal, and congressional elections), community involvement (having ideas for improving things in the community, working to bring about change in the community, spending time with community work), attendance at meetings (attending political meetings, local group meetings, public meetings), and political interest (obtaining political information and discussing politics). The next five tables (Table 8, 9, 10, 11 and 12) show correlations between the number of respondents’ organizational affiliations and their level of participation in local civic and political life (Rounds 1 and 2 of the EPIC sample data).

Table 8. Correlations: Organizational affiliations and voting behavior (EPIC households)

		Are you a registered voter?	Voted last presidential election?	Voted in the last congressional election?	Voted in the last municipal election?
Round 1	Pearson Correlation	.078	.153	.125	.134
	Sig. (2-tailed)	.334	.057	.121	.098
	N	156	156	156	154
Round 2	Pearson Correlation	.181(*)	.239(**)	.278(**)	.304(**)
	Sig. (2-tailed)	.031	.004	.001	.000
	N	142	143	142	141

* Correlation is significant at the 0.05 level (2-tailed).
 ** Correlation is significant at the 0.01 level (2-tailed).

Table 9. Correlations: Organizational affiliations and voting behavior (EPIC)

		Obtain local political info	Discuss politics	Discuss politics online
Round 1	Pearson Correlation	.320(**)	.131	.158
	Sig. (2-tailed)	.000	.103	.077
	N	126	156	126
Round 2	Pearson Correlation	.035	.136	.092
	Sig. (2-tailed)	.701	.108	.319
	N	120	141	120

** Correlation is significant at the 0.01 level (2-tailed).

Table 10. Correlations: Organizational affiliation and Community Involvement (EPIC)

		Have ideas to improve things in community	Work to bring change to community	Spend time with community work	How active & involved
Round 1	Pearson Correlation	.297(**)	.408(**)	.444(**)	.550(**)
	Sig. (2-tailed)	.000	.000	.000	.000
	N	156	156	155	146
Round 2	Pearson Correlation	.277(**)	.410(**)	.257(**)	.454(**)
	Sig. (2-tailed)	.001	.000	.002	.000
	N	142	142	143	140

** Correlation is significant at the 0.01 level (2-tailed).

Table 11. Correlations: Organizational affiliations and attendance at meetings (EPIC)

		Attend a political meeting	Attend a local group meeting	Attend a public meeting
Round 1	Pearson Correlation	.224(**)	.400(**)	.487(**)
	Sig. (2-tailed)	.005	.000	.000
	N	155	153	151
Round 2	Pearson Correlation	.278(**)	.439(**)	.289(**)
	Sig. (2-tailed)	.001	.000	.000
	N	141	141	142

** Correlation is significant at the 0.01 level (2-tailed).

Table 12. Correlations: Organizational affiliations and Involvement since online (EPIC)

		Involved in local issues since online	Involved in community since online	Attendance at group meetings since online
Round 1	Pearson Correlation	.167	.318(**)	.271(**)
	Sig. (2-tailed)	.062	.000	.002
	N	126	126	125
Round 2	Pearson Correlation	.209(*)	.396(**)	.218(*)
	Sig. (2-tailed)	.023	.000	.018
	N	118	118	117

** Correlation is significant at the 0.01 level (2-tailed).

Discussion

We have presented findings about the role of local voluntary associations and information technology and communication from longitudinal survey data derived from two waves of stratified household sample and the first wave of a simple random sample of households in the town of Blacksburg and surrounding Montgomery County, Virginia. The analyses show that people who are affiliation with more local groups are more politically active and involved than people who belong to only one group or none at all. They are more active and involved in terms of their voting behavior at all levels - local, state, national; their community involvement (for example, having ideas for improving things in the local community, and working to bring about change in the local community. Finally, they are more interested in politics and in discussing politics with others. They are more likely to attend local public meetings.

Affiliation with a greater number of local groups is significantly higher among households with married couples, and households with children. Households with children affiliate more with social and recreational types of groups than other types. Women belong to a greater number of groups than men, and are more likely than men to affiliate with religious groups and with civic groups. The majority of respondents reports that their group(s) talks at least informally about politics; almost half of their groups also takes a stand on issues.

The impact of information technology on groups is significant in several ways. Members of groups report significant increases over time in online communication among members. This includes email, listserv and/or web-based communication. They report significant increases in involvement in group processes and activities (e.g., attending, donating, volunteering). They report increased participation in leadership roles; more people are willing to volunteer to lead group tasks.

Members of expressive groups such as religious, charitable and support groups, and members of social and recreational groups were likely to become more involved in organization activities over time. Members of instrumental groups, such as educational groups and professional associations, were likely to use the Internet for political and civic activities, such as discussing politics, sending email to public officials, and helping neighbors. Members of civic organizations were likely to get more involved over time in online civic activities, including getting news online, and using the Internet to get more involved in local activities.

These findings confirm earlier research showing that affiliation with voluntary associations is linked to local civic and political participation. The specific contribution of the research described in this paper is to link group affiliation and information technology use and impacts.

The findings further show that members of local groups are using information technology to increase their communication with other members and to become more involved in the activities of the group, including taking on leadership responsibilities. The increasing willingness to shoulder leadership roles in local groups is important. The survival and strength of local groups depends on the willingness of citizens to volunteer their time and energy to support the activities and needs of the group. The fact that leaders can use information technology to communicate with fellow officers and the membership makes the work involved easier and less time consuming. Group leaders are able to engage in simple collaborative activities online and even cull opinions and immediate feedback from committee members without requiring as many face-to-face meetings. The distribution of information online, such as background documents and newsletters, to the membership means a simpler procedure (compared with stuffing envelopes and licking stamps) and a cost savings for the organization. The vitality of the group is not sapped by mundane and routine tasks, and the leadership is refreshed more frequently with new faces and energy.

The role of voluntary associations in democratic life is essential in drawing average citizens into discussion and awareness of local issues and concerns. The health of these organizations bears directly on the health of democracy in the United States. Our study contributes to growing

evidence that information technology increases the communication and participation of members in voluntary associations, and strengthens leadership and volunteerism within the group.

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