Editorial

The Bridging and Bonding Role of Online Communities

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A long tradition in sociological theory among writers such as Durkheim, Marx, Weber, Tonnies, and Simmel has been concerned about the loss of community and the weakening of the face-to-face relations of *Gemeinschaft*, a theme revived recently in the work of Robert Putnam (2000). Contemporary debates about social capital have noted that many local networks and associations strengthen social cohesion, but another, darker, downside exists in community life (Portess and Landholt 1996; Edwards and Foley 1998). To understand this phenomenon, Putnam (2000, 2002) has drawn an important distinction between *bridging* groups that function to bring together disparate members of the community, exemplified by mixed-race youth sports clubs in South Africa or the Civic Forum in Northern Ireland, and *bonding* groups that reinforce close-knit networks among people sharing similar backgrounds and beliefs. In Putnam's (2000) words,

Bridging social capital refers to social networks that bring together people of different sorts, and bonding social capital brings together people of a similar sort. This is an important distinction because the externalities of groups that are bridging are likely to be positive, while networks that are bonding (limited within particular social niches) are at greater risk of producing externalities that are negative.

This conceptual distinction should be seen as a continuum rather than a dichotomy, since in practice many groups serve both bridging and bonding functions, but networks can be classified as falling closer to one end of this spectrum or the other. Heterogeneous local associations (such as parent-teacher associations and the Red Cross) are believed to have beneficial consequences for building social capital, generating interpersonal trust, and reinforcing community ties.

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Homogeneous bonding organizations can also serve these positive functions, but the danger is that they can exacerbate and widen existing social cleavages, especially in pluralist societies splintered by deep-rooted ethno-national, ethno-religious, or racial conflict. The dysfunctional types of bonding networks are exemplified by the Ku Klux Klan in Mississippi, La Cosa Nostra in Sicily, or the IRA in Belfast.

This distinction raises important questions about how best to promote inclusive networks to foster crosscutting cleavages in divided societies. One problem is that if cities like Belfast, Johannesburg, or Los Angeles are deeply divided, but local neighborhoods are socially homogeneous, then associations within each area are likely to reflect the background, beliefs, and interests of the predominant group within each community. Fragmented pluralism exacerbates the challenges facing aggregating institutions. Many believe that one important way to overcome these limitations could lie through the transition from territorial communities of place toward online communities of identity. The growth of the Internet population generated a substantial literature theorizing about the potential consequences of virtual communities for exacerbating or overcoming the "tragedy of the commons" (Rheingold 1993; Schuler 1996; Tsagarousianou et al. 1998; Jones 1998; Bimber 1998). Empirical research has examined many dimensions of online communities, including in-depth ethnographic studies of particular groups like The Well, content analysis of participants in Internet listservs and chat rooms, and studies of the most effective features of community organization Web sites (see Holmes 1997; Jones 1998; Hill and Hughes 1998; Davis 1999; Kim 2000; Gaines and Shaw 2001; Preece 2001; Hafner 2001; Norris 2001). Yet many questions remain. How do territorial and online communities overlap and interact? Were participatory online groups an early phase among Internet enthusiasts that may be dying with the "normalization" of the more passive Internet population? And the particular focus of this study, do online groups serve a bridging or bonding function for society as a whole?

Theoretically, there are intriguing possibilities. On one hand, certain features of the digital world, especially its fragmented hyperpluralism, should encourage interaction and exchange within social groups sharing similar beliefs and values. The Internet is a medium where users have almost unlimited choices and minimal constraints about where to go and what to do. Commitments to any particular online group can often be shallow and transient when another is but a mouse-click away. Most purely online communities without any physical basis are usually low-cost, "easy-entry, easy-exit" groups. To avoid cognitive dissonance, it is simpler to exit than to work through any messy bargaining and conflictual disagreements within the group. Like adherents to particular left-wing or right-wing talk radio shows, or readers of highly partisan newspapers, the result of participating in online communities could be expected to reinforce like-minded beliefs, similar interests, and therefore *ideological* homogeneity among members.

So many interest groups, organizations, and associations are available on the Internet that it is exceptionally easy to find the niche Web site or specific discussion group that reflects one's particular beliefs and interests, avoiding exposure to alternative points of view. Thousands of networks are devoted to bringing together like-minded souls ranging from anarchists, hippies, and vegetarians to skinheads and survivalists. A cornucopia of discussion groups span everything from the issues of abortion and afrocentrism to welfare reform and xenotransplantation. You can monitor human rights with Amnesty International, the environment with Greenpeace, or the state of democracy with the National Democracy Institute. Or, should you be so inclined, you can visit hundreds of policy think tanks in D.C. ranging from the Heritage Foundation and the Cato Institute to the Brookings Institution and the Twentieth Century Fund. Hyperpluralism and overspecialization among marginalized groups can be expected to encourage bonding among regular members.

Yet this is far from the whole story because, on the other hand, certain features of the Internet could be expected to bridge traditional social divides. Textual communication via the Internet strips away the standard visual and aural cues of social identity—including those of gender, race, age, and socioeconomic status—plausibly promoting heterogeneity, where "no one knows that you are a dog on the Internet" (Holmes 1997). Social psychologists suggest that this anonymity could be most important for marginalized populations who are otherwise isolated from cultural interactions outside of their group, such as single mothers working at home, gay men, or rural poor populations (McKenna and Bargh 1998). The digital divide in the early years of adoption hinders social diversity, but the normalization of the Internet population in America, as access spreads more widely, should also promote greater inclusiveness for poorer and less educated sectors as well as for women and ethnic minorities. The lack of barriers to entry means that once social groups are online, most virtual communities are fairly permeable to new members.

These considerations lead us to the typology of the societal function of online communities outlined schematically in Figure 1. The classification assumes that pure bonding groups are most likely to occur online where social and ideological homogeneity overlaps, deepening networks among people sharing similar backgrounds and beliefs. In contrast, where the Internet draws together those from diverse social backgrounds and beliefs, widening contacts, the typology suggests that this generates pure bridging groups. Nevertheless, this pattern can be expected to vary systematically by (1) the type and depth of the social cleavage (such as by gender, race, or class) and (2) the type of online group (such as by religious, union, or local community group). Just as the social background and ideological beliefs of members in nonvirtual communities typically vary in predictable ways, for example, with more men usually joining sports clubs, trade unions, and political associations while more women often belong to religious

	Social Homogeneity	Social Heterogeneity
Ideological Homogeneity	Bonding	Mixed Type A
Ideological Heterogeneity	Mixed Type B	Bridging

Figure ITypology of Groups

organizations, so online communities could each be expected to reflect these differences as well.

Survey Evidence

To explore these propositions further, we can turn to the Pew Internet and American Life project that has developed perhaps the most detailed series of daily tracking surveys investigating the practices and habits of Internet users in the United States (for details, see Horrigan et al. 2001; <www.pewinternet.org>). From January 17 to February 11, 2001, Pew conducted a special survey on Communities and the Internet, including multiple items monitoring Internet use, behavior, and attitudes toward both online and local communities, along with the standard sociodemographic factors. Princeton Survey Research contacted a sample of 3,002 respondents using a random-digit sample of telephone numbers designed to be representative of the American adult population, then identified a subsample of Internet users (n = 1,697). The sample data are weighted in the analysis to be representative of the population. To learn about people's experiences of the Internet, the survey asked the following battery of questions:

C22 Please tell how much, if at all, the Internet has helped you do each of the following things.

[Bonding]

- a. Becoming more involved with groups and organizations you already belong to
- b. Finding people or groups who share your interests
- c. Finding people or groups who share your beliefs
- g. Connecting with groups and organizations that are based in your local community

[Bridging]

d. Connecting with people of different ages or generations

Table IFactor analysis of the bridging and bonding functions of the Internet

How much has the Internet helped you		Bridging
Becoming more involved with groups and organizations you		
already belong to?	.802	
Connecting with groups and organizations that are based in		
your local community?	.754	
Finding people or groups who share your interests?	.745	
Finding people or groups who share your beliefs?	.655	
Connecting with people from different racial or ethnic backgrounds?		.860
Connecting with people from different economic backgrounds?		.806
Connecting with people of different ages or generations?		.732
% total variance explained	33.8	30.8

Source: Communities and the Internet, a Pew Internet and American Life survey conducted between January 17 and February 11, 2001 (see www.pewinternet.org).

Note: Extraction method: principal component analysis. Rotation method: varimax with Kaiser normalization.

- e. Connecting with people from different racial or ethnic backgrounds
- f. Connecting with people from different economic backgrounds

Factor analysis showed that these items fell into two principal dimensions, representing how far people believed that their Internet experience helped them in either bridging social divisions of generation, race, and class or bonding with people with similar interests and beliefs (see Table 1). These items were recoded and summed to create separate bridging and bonding scales, standardized to one hundred points for ease of interpretation.

What Types of Online Groups Promote Experience of Bridging and Bonding?

The first issue is how far different types of groups like unions, community associations, and sports clubs proved stronger at promoting the experience of the bridging or bonding functions of the Internet. The Pew survey asked how far people used the Internet to have any contact with, or to get any information from, a range of thirteen different types of online groups. Respondents were also asked to nominate which of these groups they were in contact with most often. Table 2 and Figure 2 show the mean score on the perceived bridging and bonding function of the Internet as experienced by users of different types of online groups. The results show that overall contact with online groups was believed to serve both functions, but the experience was slightly stronger for reinforcing bonding (deepening contact with people of similar beliefs or interests) than for bridging (widening contact with people from diverse social backgrounds).

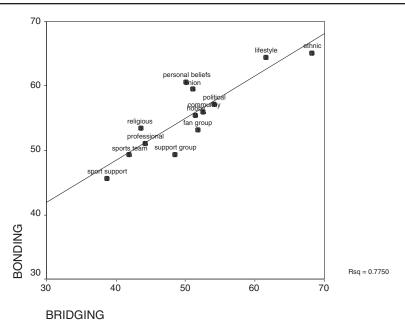


Figure 2
The Bridging and Bonding Function of Different Online Groups
Source: Communities and the Internet, a Pew Internet and American Life survey conducted between January 17 and February 11, 2001 (see <www.pewinternet.org>).
Note: The question regarded type of group: "Which of these groups are you in contact with most often through the Internet?" Bonding and bridging function one-hundred-point scales (see Table 1).

There were variations by the type of group, as expected, with the experience of contact with ethnic-cultural groups and groups sharing a similar lifestyle rated highest in both functions. Many groups clustered in the middle of the distribution, while in contrast, contact with sports groups, as a supporter or participant, was perceived to generate the least social benefits. Overall, there was a strong relationship between these two functions ($R^2 = .77$). To see whether these differences between groups remained significant, ordinary least squares (OLS) regression models were run predicting the impact of contact with different types of groups on experience of the bonding or bridging functions of the Internet, including the standard social controls (for age, sex, education, income, and race). The models in Table 3 show that even after controls were introduced, contact with most groups remained a significant predictor of evaluations of the bridging or bonding functions of the Internet. The pattern suggests that online contact does bring together like-minded souls who share particular beliefs, hobbies, or interests, probably due to the hyperpluralism and ideological diversity widely evident on the Internet as well as widening social diversity.

Table 2The bridging and bonding function of different online groups

% Ever ^a	% Most ^b		Mean Bridging Scale	Mean Bonding Scale
50	24	A trade or professional association	46	53
50	21	A group for people who share a hobby, interest, or activity	51	56
31	7	A fan group for a particular TV show, entertainer, or musical group	54	55
29	7	A support group for a particular sports team	49	54
29	3	A local community group	50	57
28	4	A group of people who share your personal beliefs	58	62
28	5	A support group, e.g., for a medical condition	49	55
24	6	A group of people who share your lifestyle	56	63
22	3	A political group or organization	51	57
21	5	A religious group or organization	48	56
20	5	A sports team or league in which you participate	49	54
15	2	An ethnic or cultural group	59	61
6	1	A labor union	52	59

Source: Communities and the Internet, a Pew Internet and American Life survey conducted between January 17 and February 11, 2001 (see <www.pewinternet.org>).

Note: Bonding and bridging function was calculated on one-hundred-point scales (see Table 1). The scales were estimated for those who had "ever" used the Internet to contact these groups. The difference between the mean scores on the bridging and bonding scales for those who had ever used the Internet to contact these groups and those who had not were all significant at .01, as measured by ANOVA.

a. The question was, "Have you ever used the Internet to be in contact with or get information from \dots ?"

b. The question was, "Which of these groups are you in contact with most often through the Internet?"

These results can be broken down by the type of social diversity by comparing responses to the specific item that the Internet helped "find people who share my beliefs" against the three items monitoring whether the Internet helped connect with people from different racial/ethnic, economic, or generational backgrounds. Figure 3 shows that participation in most online groups did little to bridge racial divides in America, other than contact with specific ethnic-cultural organizations. Group contact was also fairly ineffective on bridging the socioeconomic or class divide. But online communities did seem to have greater capacity of the Internet to cut across generational lines: those engaged in the online groups organized around lifestyles, ethnicity, community, hobby/interest, and political associations found that the Internet helped to connect with people of different age groups. More groups fell into Mixed Type A category (generating

 Table 3

 Ordinary least squares regression model predicting bonding and bridging

	Unstandardized Coefficient		Standardized Coefficient	
	В	SE	β	P
Bonding function (deepening interests)				
Constant	124.11	3.66		.00
Controls				
Age	0.10	0.02	.08	.00
Sex	1.39	0.70	.03	.05
Education (last grade completed)	-0.68	0.23	05	.00
Income (household)	0.28	0.15	.03	.06
Race (white)	1.80	0.89	.03	.04
Type of online group contact				
Share your personal beliefs	5.98	0.58	.17	.00
Hobby, interest, or activity	4.61	0.56	.14	.00
Local community group or association	3.82	0.61	.10	.00
Political group or organization	5.30	0.88	.10	.00
Entertainment fan club	4.08	0.80	.09	.00
Share your lifestyle	2.58	0.52	.08	.00
Support group	3.32	0.75	.07	.00
Trade or professional association	2.66	0.62	.07	.00
Religious group or organization	2.86	0.83	.06	.00
Sports team	1.85	0.86	.04	.03
Ethnic or cultural group	1.47	0.72	.03	.04
Labor union	1.40	1.23	.02	.25
Sport supporter club	0.95	0.74	.02	.20
Adjusted $R^2 = .253$				
Bridging function (widening contacts)				
Constant	119.52	4.27		.00
Controls				
Age	0.14	0.03	.10	.00
Sex	0.32	0.81	.01	.69
Education (last grade completed)	1.03	0.27	.07	.00
Income (household)	0.52	0.18	.05	.00
Race (white)	4.28	1.04	.07	.00
Type of online group contact				
Group sharing your personal beliefs	6.22	0.67	.16	.00
Entertainment fan club	7.33	0.93	.14	.00
Ethnic or cultural group	4.42	0.84	.09	.00
Political group or organization	4.73	1.03	.08	.00
Share your lifestyle	2.49	0.61	.07	.00
Personal support group	3.14	0.87	.06	.00
Hobby, interest, or activity	2.26	0.65	.06	.00
Local community group or association	2.08	0.71	.05	.00
Sports team player	1.17	1.00	.02	.24

Table 3 Continued

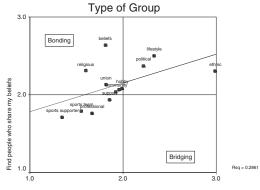
	Unstanda Coeffic		Standardized Coefficient	
	В	SE	β	P
Trade or professional association	0.75	0.73	.02	.30
Labor union	-0.20	1.43	00	.89
Sports support club	-0.40	0.86	01	.64
Religious group or organization	-0.77	0.97	01	.43
Adjusted $R^2 = .182$				

Source: Communities and the Internet, a Pew Internet and American Life survey conducted between January 17 and February 11, 2001 (see <www.pewinternet.org>).

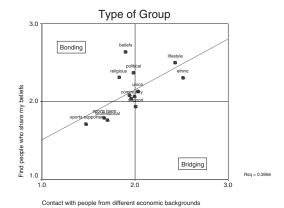
experience of ideological homogeneity and social heterogeneity) by age group than by class or race. The reason for this could be that the younger age profile of the Internet population, combined with the tendency for more middle-aged membership in many traditional organizations, results in online groups' becoming a generational meeting place.

Conclusions

Many believe that any erosion in the traditional face-to-face sociability and personal communications or Gemeinschaft in modern societies represents a threat to the quality of civic life, collaborative social exchanges, and the community spirit. Whether the Internet has the capacity to supplement, restore, or even replace these social contacts remains to be seen. As an evolving medium that is still diffusing through the population, it remains too early to predict the full consequences of this technology. Nevertheless, the Pew survey evidence among existing users allows us to explore whether those Americans who are most active in online groups feel that it *widens* their experience of community (by helping them to connect to others with different beliefs or backgrounds) or whether it deepens their experience (by reinforcing and strengthening existing social networks). The analysis suggests that in general, the Internet serves both functions, although the strength of this effect varies in important ways by the type of online group in America. To go further, we need to explore more ethnographic studies of the inner life of communities, including those functional and dysfunctional for society as a whole. It is hoped that online communities could perhaps help to overcome traditional divisions among territorial communities, as exemplified by the ethno-religious enclaves in Belfast, the sharp divisions between the poorer inner cities and the affluent suburbs in Detroit, or racial divides in Johannesburg. If we can extrapolate more broadly from this study of the American Internet population, the results suggest that these hopes may prove to be exaggerated, but



Connect with people from different racial backgrounds



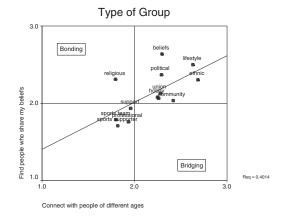


Figure 3
Types of Group by Race, Class, and Generational Bridging
Source: Communities and the Internet, a Pew Internet and American Life survey conducted between
January 17 and February 11, 2001 (see <www.pewinternet.org>).

online participation has the capacity to deepen linkages among those sharing similar beliefs as well as serving as a virtual community that cuts across at least some traditional social divisions.

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