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Putting the Community Back into Community Networks: A Content Analysis

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Putting the Community Back into Community Networks: A Content Analysis

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Abstract

This study examines the role that community networks can take in fulfilling McQuail's call for a more democratic participant form of media. Community networks, which are grassroots organizations designed to promote local community initiatives, increased their presence on the Internet in the 1990s. However, in recent years their number has declined. Research suggests that community networks fail because they lack a unified identity, have not determined their specific purpose on the Web, and do not provide relevant information to network members. Findings suggest that community networks wishing to achieve sustainability should concentrate their efforts on developing social capital and fostering strong democracy on their sites. The extent to which existing community networks are working toward developing such content is assessed.

Communication scholars have long been concerned that communication technologies, which have so much potential for improving the lives of individuals, often fail because they become a tool primarily used for commercial gain (Peters & Simonson, 2004). Early on in the study of mass media, Lazarsfeld and Merton (1948) pointed out that the reliance on advertising to support communication technologies like radio and television directed the focus of communication technologies away from the public and onto the consumer.

Most mass media in the last century have succumbed to this trend. Radio, as Barnouw points out (1966), began with the noble purpose of serving the public. The Radio Act of 1927 made it clear that radio existed for "the public interest, convenience and necessity." However, as radio grew in popularity it also began to move in new directions for support. Advertising became the means by which stations could afford to stay on the air. In the end, the first great broadcast medium did not become the tool for education of the masses; it became the primary entertainment medium of the early part of the 20th century. This pattern of advertising-supported radio spilled over into television and it too became a tool designed to entertain the masses.

In 1972, the Federal Communication Commission (FCC) made attempts to use the television for more civic-minded purposes. The FCC promulgated regulations that required cable providers to establish public access television that could be used for public, educational, and government (PEG) access. This ruling, however, was revised in 1984 with the Cable Communication Policy Act of 1984. The FCC continued to support PEG channels, but it did not mandate their presence on cable television. However, once

cable operators were free from a mandate only a very few providers continued to carry the channels ("Near-term," 2005).

The failure of mass media to produce an acceptable outlet for the public has led McQuail (1987) to call for a more interactive form of mass media, commonly referred to as Democratic-Participant Media Theory. McQuail argues that private media have had a historical tendency to form bureaucracies that do not fully serve citizens. He also claims that the merging of older mass media into large corporations has caused it to become too commercial, "too monolithic" and "too professional" (McQuail, 1987, p. 122). Table 1 illustrates five major media outlets existing in the U.S. and their major subsidiaries. The data illustrate the potential power that major media corporations can wield among the masses. McQuail's theory claims that the consequences of such conglomerates have been that mass media are not in touch with the average citizen and exist more for monetary gain rather than for the public good. As part of this theory, McQuail claims that media should provide a means by which minority groups and individual citizens can be assured access to media. He calls for media to serve the audience and not "organizations, professionals, or clients of media" (p. 123). He advocates small-scale media ownership by local communities and other citizen groups that encourage interactive and participative forms of communication. Furthermore, the theory recognizes that certain social needs are not always adequately met by formally organized communication organizations and that "communication is too important to be left to professionals" (p. 123).

Community Networks

Today, computer-mediated-communication (CMC) has the potential to provide new opportunities for such public access. Community networks (CNs), also referred to as civic networks, digital cities, FreeNets, community computing-centers, or public access networks (Schuler, 2005), are networks designed to promote the civic, social and educational goals of a community (Harrison & Stephen, 1999). Carroll and Rosson (2001) state that the purpose of the community network is to "facilitate information dissemination, discussion, and joint activity pertaining to the municipal government, public schools, civic, groups, local events, community issues and concerns, and regional economic development and social services" (p. 382). Carroll and Rosson (2003) also point out the importance of distinguishing between community networks and network communities. Community networks are grounded in real space (i.e. a city, a town or some type of local area), whereas network communities are grounded in virtual space where members from numerous physical communities come together to develop their own community online.

Problems with Community Networks

In the late 1990s, community networks were growing at a steady rate. However, Schuler (2005) claims that community networks are currently in decline. He notes that a number of factors have contributed to the decrease in community networks. Commercial Websites began to compete with the content community networks offered. Other factors centered on funding. For example, a major supporter of community networks, The National Public Telecomputing Network (NPTN) fell into bankruptcy in 1996.

A Problem of Identity

Because funding has come from so many different sources, other problems arose with community networks. Ultimately, this diversity in sponsorship has hindered the ability of the community network movement to find an identity of its own. Such funding has come from a variety of community and civic-minded groups. Carroll and Rosson (2003) have identified six sponsors of community networks: governments, libraries, nonprofits, universities, corporations, and an "uncategorizable" sponsor.

As a result, community networks have emerged with very different goals, which have caused them to move in divergent directions. Some were designed to be social groups organized by interested computer enthusiasts. Others have been developed to meet various community needs such as social mediation, health education, and government participation. Still other community networks have been developed to promote computer education in rural areas. Most proponents of community networks argue that the movement must define its purpose if it is to achieve success in the future (Schuler, 2005; Caroll & Rosson, 2003).

Schuler has gone as far as to say that community networks must also realize that many of their original goals are now outdated. In fact, one might argue that some of the generally accepted core objectives of community networks are part of the reason why community networks often fail to attract mainstream members of a community. For example, one of the larger networks, the Seattle Community Network (SCN) (www.scn.org) lists the following goals for its network (Schuler 2005): to provide information and communication services such as email and Web hosting, to develop

online community resources, to draw attention to local needs, to provide public access, to provide easy to use software, to promote certain norms and value, to promote public discussion on information policy issues, and to provide training.

Schuler argues that some of these earlier objectives should no longer be primary goals of CNs. He notes that email is one component of a community network that is no longer highly sought by community members. In the 1990s email was a main attraction for individuals to become members of a community network. However, with the increasing availability of free email addresses from places like Yahoo and Hotmail, this is no longer the case. Admittedly, the availability of email to individuals may still be a consideration in community network design, but it is no longer a critical need for many community members.

The SCN goals also contain statements about technical education. They will provide members of the network with easy to use software and training to use that software. Talbot and Newman (1998) note that this is a common goal among networks internationally. Yet, here a certain irony exists as well. Most community network members in the early development of community networks were already technically savvy computer users (Kavanaugh & Patterson, 2001). The reported majority were males with at least a four-year college degree, a generally computer-literate demographic.

The rationale behind the software provision policy has been to reach out to members of communities who are reluctant to participate in computer-mediated communication, such as senior citizens and low-income individuals, to allow them to have a voice in the community network as well. However, it is still difficult to tell if

community networks can have such an impact. Ferlander and Timms (2001) found that community networks might be a means to augment participation among low-income groups who typically fail to participate in civic and community events. On the other hand, Kavanaugh and Patterson (2001) determined that community networks do not necessarily increase community involvement. Instead, the researchers found that community networks do provide another means by which previously disposed civic and community minded individuals may interact with other members of the community, but they don't seem to draw in new participants. Caroll & Rosson (2003) add to the debate by suggesting that new participants may not be drawn to community networks because current design practices fail to meet the needs of the users.

A Problem with Content and Design

Myles (2004) points out that many community networks have found it difficult to draw an audience because they cannot compete with commercial sites. He speculates that commercial Websites appeal to Web users for a number of reasons. First, commercial Websites are often better designed. Professional designers typically design the sites with the consumer in mind. Sites are visually inviting, interactive, and/or user friendly. Community networks, on the other hand, are typically grassroots projects designed by the non-professional. They are often designed by "techno geeks" with a great deal of technical training and little to no ability to make the site user-friendly.

Other researchers have observed that community networks are not really in touch with their communities. Caroll & Rosson (2003) have claimed that community networks are becoming less community centered than they were 15 years ago. Myles (2004) has

made similar observations, arguing that weak content is the reason for a growing disinterest. Some networks, for example, include local tourism information. Yet tourism information is generally recognized as relevant to members outside the community; its existence on a community network seems inconsistent with the movement's goals of community building. Other CNs include links to non-local Websites. For example, visitors to AccessEvansVille.org will find links to a "free ISP." Clicking on the link will direct visitors to links to national Internet Service Providers such as Netzero or Juno. Kwon (2005) found that only 31.9% of his sample reported using their local community network for "local community information resources" (p. 817). The researcher questioned whether the findings suggested that individuals are not using the community content simply because they lack interest or whether it is because of a failure on the part of the community networks to provide important community content to network members.

To sum up, research suggests that community networks may be declining, in part, because they fail to promote their own communities. Furthermore, many have become nothing more than one more poorly designed bulletin board of links in cyberspace. The movement seems to have failed to draw more users to their domains because the same information is available in much more appealing forms in numerous other places on the Web.

Rationale and Research Questions

Despite these problems, a few community networks are still thriving. The Blacksburg Electronic Village (www.bev.net) and HoosierNet (http://www.bloomington.in.us/) are among some of the longer running community

networks that have managed to find success. Furthermore, community networks have the potential to benefit communities. They provide non-partisan forums for public discourse, promote community education, and support the social and economic development of a community. They can provide a voice to local community members through another channel of communication. It is therefore important to begin to study them as a movement rather than as separate entities.

Because community networks have had so many varied objectives, only a few individuals have attempted to measure community networks for their successes. However, as community networks continue to close their sites, it is becoming increasingly evident that those that survive have developed certain qualities that others have not. The time is ripe to establish indicators of success. The inconsistency among community networks has led some to call for a more systematic evaluation of community networks to determine those factors necessary for network sustainability (Harrison & Stephen, 1999; O'Neil, 2002).

Part of this means that studies must analyze those universal indicators that have made the movement successful. Research indicates that community networks may be particularly useful in moderating at least two important concerns in communication studies: the use of CMC to develop social capital in a community and to promote strong democracy. A study of these areas will provide important data for communities that wish to develop community networks in the future and for those that are failing to thrive.

A study of communication networks has scholarly merits as well. First, community networks exist for the purpose of promoting their communities. Their

success, in part, relies on their ability to communicate successfully to community members in a computer-mediated forum. A study of the successes and failures of community networks moves us towards developing better models of interpersonal computer-mediated-communication for virtual communities.

Four research questions will be examined in this study:

RQ1: To what extent do community networks focus on developing social capital and strong democracy?

RQ2: What is the relationship between the number of sponsors and the extent to which social capital and strong democracy are emphasized on the community network?

RQ3: What is the relationship between population size and a community network's emphasis on social capital and democratic content?

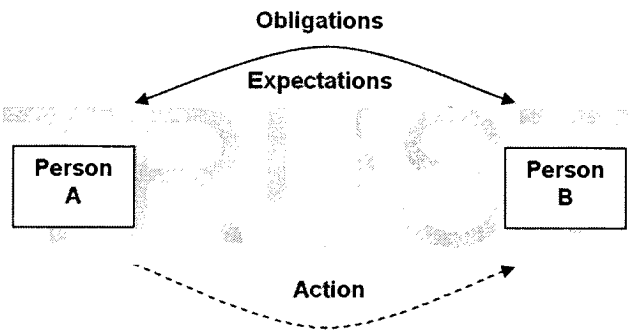
RQ4: Which type of content, social capital or democratic, has received more emphasis on community networks?

Literature Review

Coleman first argued that communities with high social capital were stronger communities (Fukuyama, 1995). He began his research by differentiating between three types of capital: physical, human, and social. Physical capital pertained to physical resources such as tools and machines. Human capital included those skills and talents that members of a particular group possessed. Social capital, however, was a measurement of a group's ability to work together successfully. Social capital recognizes that relationships among group members, whether positive or negative, inhibit or enable the group to meet its goals (Coleman, 1988). Fukuyama (1999) offers another definition of

social capital, "an instantiated informal norm that promotes cooperation between two or

Coleman's Model for Developing Social Capital



more individuals" (p. 1).

The Role of Obligations, Expectations and Trust in Developing Social Capital

Coleman (1988) theorizes that there are three qualities that must exist among group members in order for a group to possess a high degree of social capital: obligations, expectations, and trustworthiness of social structures. If, for example, person A does something for person B, then person B often feels *obligated* to reciprocate the act in the future. At the same time person B typically assists person A with the *expectation* that he or she will receive the same kind of treatment in the future. The success of this interaction, however, is dependent on the trustworthiness of the social structure. In other words, if person A and B participate in a culture that does not feel any obligation or practices reciprocal expectations because of a lack of trust on the part of its members, then one can say that the culture of the community is deficient in social capital. In contrast, communities that have multiple obligations and expectations and which practice

social structures that encourage trust have a high degree of social capital from which they can draw.

Fukuyama (1995) applied Coleman's principals in arguing that democratic and capitalist systems depend on a high degree of social capital as well. He used a number of historical and modern examples of communities, nations, and organizations that have been successful because they were high in social capital. For example, the traditional view of early Americans as rugged individualists is not entirely true. Fukuyama points out that early Americans were often bound together by religious, cultural, social, and familial ties that created a community high in social capital. Members of a community typically attended the same churches, participated in similar clubs or other organizations, and lived close to their extended families. He cites the tightly knit community of the Puritans and the social activism of the Methodist movements as examples of religious groups with a high degree of social capital resulting from community trust. Furthermore, participation in civic-minded groups was a natural outgrowth of cultures that possessed high degrees of social capital (Putnam, 2000). Earlier generations of Americans established and participated more frequently in organizations such as the Parent-Teacher Association, the Lions, the Elks, and the Jaycees.

Fukuyama also discussed the importance of reliable and accurate information in societies with high social capital. Societies in which people trust one another are societies that have learned to believe one another because members provide accurate information about themselves. Business partners, for example, learn to trust one another more as they

fulfill obligations and meet demands. In other words, social capital increases as members learn that other members will meet their claims.

The Impact of Social Capital

A lack of social capital among individuals can also negatively affect members of a social group. Coleman (1988) examined the impact of social capital on a child's education. The study revealed that children in single parent homes typically struggled more in their academics than children from two-parent households. It was found that children of single parents often received less assistance on schoolwork because the parent was often required to work long hours. In addition, younger children with many siblings often received less attention from their parents than families with only a few children. Data collected from 4,000 students in public and private high schools showed that 22.6% of the children who lived in single parent households with four or more siblings dropped out of high school. In contrast, only 10.1 % of the sample of children from two-parent families with one sibling dropped out of high school.

Coleman saw the ratio of adults to children and the strength of those relationships as measurements of the social capital that existed between the two. In other words, Children who possessed strong relationships with their parents or high social capital also saw more success in their education. In contrast, parents who had little interaction with their children or low social capital often saw their children do poorly in school.

Other factors as well seemed to contribute to an increased dropout rate. Students who moved frequently from school to school were more likely to drop out (23.1%) as well as students who attended private secular schools (11.9%). Coleman suggests that

each of these factors contributed to the amount of social capital students developed with others. Students who moved frequently were unable to form long lasting bonds with their peers or adults. Likewise, students in private secular schools typically lived away from their parents, forming very few social ties with adults. In contrast, only 3.4% of the students attending Catholic schools dropped out of high school. Coleman explained students in Catholic schools often possessed more social capital because of their common religious ties.

Fukuyama and Coleman's research indicate that social capital is developed when certain variables exist. First, social capital seems dependent on successful interpersonal relationships and effective communication. Second, it is fostered when individuals have come to trust one another and have shared in a common set of experiences. Social capital is also strongest when individuals share a sense of community, whether that community is defined by the school they attend, the town they live in, or some other social construct. Furthermore, social capital requires that individuals possess an awareness of the needs of others. This awareness causes individuals to see individual success as dependent on working toward the corporate success of the community. Other studies suggest that communities that possess social capital support one another socially and in material ways develop a sense of shared "values, traditions and folkways" (Carroll & Rosson, 2003, p. 383). In other words, communities high in social capital manifest their own unique sense of community as a microcosm of a larger society.

It is important to point out that communities that possess social capital are not utopias. It is not the intent to create non-thinking, non-questioning citizens. Communities

possessing social capital do not discourage conflict, but rather they realize that "their survival and posterity depend on tempering competition and conflict with cooperation" (Caroll & Rosson, 2003, p. 383). Members of a community engage in positive action because they understand that cooperation ultimately improves their own quality of life.

Summary of Indicators of high social capital

Coleman (1988)	• Participants possess strong relationships and effective communication
Fukuyama (1995)	• Participants develop trust through information sharing and interaction • Participants subscribe to a shared set of values
Carroll & Rosson (2003)	• Participants provide social and monetary support • Participants possess a sense of community, reflected in a shared set of traditions and folkways

The Decline of Social Capital in the United States

Studies have suggested that social capital in America is declining (O'Neil, 2002; Putnam, 2000; Fukuyama, 1995). Fukuyama notes that rural cultures are often bound by similar moral, religious and cultural values that tend to cause communities to develop strong social capital. However, in the United States, modern industrialization has broken down those ties that bound earlier rural communities. For example, corporate jobs have often forced children to move great distances from families. Increased demands in education have moved children out of the community and placed them in college, often at long distances from their family and friends. This decline in social capital has also resulted in a post-industrial American society that lacks a basic sense of trust among members of a community (Fukuyama, 1995). At the same time, Putnam (2000) found that

the decline in social capital has caused Americans to become less involved in civic-minded activities.

The Role of Community Networks in Promoting Social Capital

Some have seen computer-mediated communication (CMC) as an opportunity to develop social capital among members of a community (Carroll & Rosson, 2003; Schuler, 1994). At the same time, others argue that community networks decrease the amount of time individuals spend in face-to-face communication. As a result, the objective of bringing a community together through a Web presence ultimately splits the community further apart (Carroll & Rosson, 2003). At least one study has indicated that an increase in community network use and membership does not necessarily improve community involvement. Kavanaugh and Patterson (2001) found that as access to the Blacksburg Electronic Village (BEV) increased among its members, community involvement within the community did not increase. The study is particularly interesting because the BEV claims to have 80% of its community members online. Despite the fact that local community involvement did not increase, findings suggested that the community network did increase in its use for "capital building activities" (p. 501). Kavanaugh and Patterson suggested that these findings may not be conclusive, however. They argue that it is difficult to tell whether the network failed to stimulate community involvement because the community was already high in social capital and therefore did not see an increase in participation.

Despite the ongoing debate as to whether community networks actually build social capital or whether they maintain it, research indicates that community networks

can at least be a part of a community's social infrastructure. As a result, some community networks have begun to focus their efforts in this area by designing their sites with opportunities to promote community cohesion. Ferlander and Timms (2001) offer a number of online activities that seek to increase social capital among community network participants. Sites may offer information about local events and services. Members of the network may have the opportunity to chat with other members or participate in scheduled chats with prominent members of the community.

Pigg's research (2001) concluded that community networks can promote social capital through CMC in the following ways:

- Finding ways to develop dialogue among residents
- Ensuring that information provided is accurate
- Provide information that promotes "intelligent conversation"
- Provide information that encourages member interaction
- Providing a means to discuss issues that are important to the community
- Developing activities which establish trust among participants

Strong Democracy and the Community Network

Communities that are high in social capital are typically communities that possess civic-mindedness (Putnam, 2000; Kavanaugh & Patterson, 2001). A good deal of research has focused on the extent to which community networks can begin to improve citizen participation in democratic processes (Barber, 1998/1999; Schuler, 1994; Morison & Newman, 2001). First, community networks may allow citizens to fully utilize their free press rights. Ruggles (Pritchard, 1995) has shown some of the failings of earlier mass

media, pointing out that court rulings have limited the effectiveness of mass media as an instrument for civic discourse. He bases his claim on the assumption that media should exist ultimately to serve as tools to promote the public good. Such claims are validated by the Radio Act of 1927[1]. Other legislation such as the Fairness Doctrine of 1949 also ensured that media present both sides of controversial issues. Such legislation was clearly established to ensure that the press served its citizenry. The original intent was to ensure that such media worked for the public rather than working to control or manipulate it.

The Failure of Older Mass Media to Invite Participation

However, while legislation may have worked for the interests of citizens, court rulings have typically prevented such policies from coming to fruition. Instead, the courts have often ruled in favor of property rights of media corporations and less with the rights of citizens to participate in public discourse. The result has been that access to mass media has been closed to the average citizen, rendering the system "utterly undemocratic" (Pritchard, 1995). As Barber explains it, "Government as a whole seems content to let market force and the logic of advertising, profits, and entertainment shape the future course of telecommunications" (Barber, 2003, p. 276).

According to this view, older mass media have not served the public as they were originally intended, nor have they fulfilled the original intent behind the first amendment, which was to support the free exchange of ideas among citizens so that all citizens could participate in democratic processes (Pritchard, 1995; McQuail, 1987). This theory presumes that our founding fathers recognized that a free press allowed citizens to

[1] The 1927 Radio Act set a standard that called for broadcasting which operated in the "public interest, convenience, and necessity." This is the first act of its kind to establish a precedent for mass media to serve the public and to work toward programming that was expedient for its citizenry.

actively engage in discussions about local, state and federal issues in a critical and constructive manner. It recognizes that large media conglomerates have failed to invite participation because they are too often driven by commercial interests. Furthermore, older media have been limited in that they are not conducive to two-way communication. Radio and television, for example, may be effective means of disseminating information. However, citizens cannot easily respond to that information. They are limited in their ability to argue the legitimacy of a media claim or to present alterative views to media reports. Furthermore, high production costs of older mass media make it virtually impossible for them to allow every citizen to have a voice. Such limitations impede the ability of citizens to use the media to build strong democracies (Barber, 2003).

Building the Strong Democracy

Twenty years ago, Barber (2003) argued for the establishment of a Civic Communication Cooperative, an organization that he envisioned would allow citizens access to media for civic endeavors. He saw that new technologies[2] could allow citizens greater participation in local, state, and national political processes. He envisioned new media that did not replace traditional media, but would provide another voice in the myriad of voices that existed in a democracy. Barber envisioned that the technology of the time could be useful in broadcasting town meetings, polls on issues of local concern, and coverage of local civic events that would interest citizens (2003).

[2] At the time of Barber's original writing of *Strong Democracy*, the Internet and computer-mediated communication was still a very new technology. As a result, when Barber refers to new technology, he primarily spoke of the television and the telephone as "new technology" which could be used to engage citizens.

Others have pointed out that our representative system of democracy does not work well in the modern age (Morison & Newman, 2001; Anttiroiko, 2003). Barber classifies democracies into either strong or thin (2003). Thin democracies operate with representatives whereas strong democracies call for citizens to become more actively engaged in the workings of the democracy. Similar to Barber's classification, Anttiroiko classifies democratic systems into two types, direct and representative. He notes that direct democracies are not feasible in large-scale populations; citizens simply do not have the time to become involved in all of the daily workings of government. As a result, citizens vote on representatives at the federal, state, and local level. However, the problem with this form of democracy is that it removes the citizen from much of the democratic processes once a representative has been chosen (Morison & Newman, 2001). While a representative system may work to keep a political body moving forward, Anttiroiko suggests that certain issues, particularly those directly relevant to citizens, might be better dealt with by incorporating more citizenry. For example, issues impacting working conditions, healthcare, and the environment should include some form of participatory opportunities for average citizens. That is not to say that a representative system should be absolved but that strong democracies with actively engaged citizens should seek to engage more than one democratic mechanism (Anttiroiko, 2003).

Using Computer-Mediated Communication to Promote Strong Democracy

Proponents of strong democracy see computer-mediated communication as one means by which citizens can become actively engaged (Morison & Newman, 2001; Anttiroiko, 2003; Schuler, 2003). Many studies have already examined the ways in which

government sites could engage citizens in the democratic processes. Much of the research present in these findings is equally applicable to community networks that seek to use the network as a means to promote strong democracy. In fact, the non-partisan, citizen-controlled, local nature of community networks may make them a more legitimate place to engage in political activities. Furthermore, many studies have suggested that government sites are not fully using CMC to move democracy into the 21st century.

CMC facilitates democratic processes in at least three ways. First, it can deliver information to the public in cost effective and readily accessible manner. Second, it can facilitate communication among the various members of the political process from the representative to the citizen. Third, it has the potential to make political transactions such as voting or polling possible (Anttiroiko, 2003).

However, research suggests that government sites are not adequately utilizing the opportunities CMC affords for the democratic process. For example, governments need to improve the ways in which information is presented. Morison and Newman (2003) argue that United Kingdom sites typically provide information that is "one to many" that is not citizen-friendly. Information seemed to be designed around the needs of each government department rather than around the needs of the citizen. The authors contrasted their findings with sites in Australia that organized their information around citizens' needs. One site, for example, included a business section, a farm section, and an education section for individuals in each respective profession.

Government sites have also failed to actively engage their citizens. Morison and Newman (2003) found that sites tend to treat citizens as consumers rather than active

participants. By this, the researchers meant that sites did not invite active participation. Instead, the sites treated citizens as "passive receivers" of information. Sites contained very few opportunities for citizens to actually engage in political discourse. Ferber, Foltz, and Pugliese's (2005) findings also indicate that U.S. state legislature sites have often failed to use interactive means, such as forums, to engage citizens.

Using Community Networks to Build Strong Democracies

Community networks can provide opportunities for citizens to participate in politics. Sites can form listserves or online forums to discuss issues that are important to local citizens. Such activities provide opportunities for politicians at the local, state, and federal levels to identify issues of public concern as well as provide an opportunity for community members to discuss important issues (Morison & Newman, 2003). Other research has found that chatrooms have also been a useful tool in political discussion. Hardy and Scheufele (2005) found that under certain conditions online chatting and face-to-face discussions were both equally effective in increasing a person's participation in politics. Others have suggested that chats between policy makers and citizens forces policy makers to present issues in a language that all citizens can understand (Morison & Newman, 2003).

Sites are not effective in promoting transactions. Morison & Newman (2003) indicated that most government sites are limited in the way in which they facilitate transactions. They found that many government sites provided links to download government documents such as licenses and permits; however, they often did not offer any transactional activity beyond these types of activities. The researchers suggest that

part of the transaction process should include an interactive component. They argue that government sites could offer more opportunities for citizens to participate in a direct democracy. For example, online polls or voting could be one means by which participants could give government bodies feedback about issues.

This study assumes that community networks will be able to take an active role in promoting social capital and strong democracy in a community. It does not intend to suggest that these are the only uses of a community network. At the same time, an underlying assumption of this research is that the promotion of social capital and strong democracy should be an integral component of community networks if they are to thrive in the future. Community networks are different from commercial networks because they exist for purposes greater than monetary gain; they exist to work towards that common good which mass media has always had the potential to facilitate. Community networks that do not recognize these differences will not be able to compete with commercial sites. Furthermore, community networks should build on their strengths if they wish to compete with commercial sites. They have an advantage over commercial Websites in these two areas because they are run and operated by members who live and work within the community.

Method

Sampling

A sample was taken from two collective lists of community networks. The first list, found at Northern Lights Internet Solutions (www.lights.com/freenet/), contained 174 links to community networks in the United States. The list, however, included gopher

and telnet sites that were not used as a part of this analysis, so 52 of these sites were removed from the sample, leaving a total of 122 sites to draw from. This list of 122 sites was compiled into a Microsoft Excel file for sampling. Sites were organized alphabetically by the name of the site. This first list was cross-referenced with a list provided by the Organization for Community Networks (1997). All community networks on the list that did not have a World Wide Web address were dropped here as well. Those sites listed on the Organization for Community Networks site that were not already identified in the Northern Lights list were added to the list for a total of 149 possible sites from which to sample.

Because the first site had not been updated since 2000 and the second since 1997, it was assumed that many of the site links may return dead links. In order to assure that a good representative sample was chosen from the population, a systematic sampling method was chosen where every third site on the list was selected until a total of 75 sites had been evaluated.

Evaluation Tool

A 24-item evaluation sheet was devised to determine the strength of a community network in its development of social capital and strong democracy. Two of the items were used for record keeping purposes, identifying the name of the community network and its Web address. One item identified the year the Website was established. These data were collected to determine whether there was a relationship between the age of a site and the extent to which the site contained content that promoted strong democracy and social capital. One item on the sheet used census data to identify the population size

that the community network served. These data were collected to answer the third research question of whether a relationship existed between the population size and a community network's emphasis on local and democratic content. One item identified the primary sponsor of the community network. A selection was made using Carroll and Rosson's (2003) categories of government, library, non-profit, university, and corporation. In addition, two additional categories of other and unknown were added to this section. Data collected in this category would answer research question two, which sought to identify any relationships that existed between sponsor and the type of content emphasized on the community network. Eight of the items on the check sheets indicated qualities of strong democracy and 11 of the items on the check sheet indicated qualities of social capital. The presence of each of the 19 items on the community network was coded into one of three categories: item present, item not present, or not able to be determined.

Validity

The index was derived from the review of literature. In the strong democracy section, nine items evaluated the networks based on Anttiroiko's (2003) observations that CMC facilitates the democratic process through delivery of information, communication, and transactions. Morison and Newman's (2003) observations about the need for active participation and Hardy and Scheufle's (2005) research on chat were also considerations. Three items on the measurement tool evaluated the site's ability to convey political information. Six items aimed at identifying those qualities on the site that facilitated

democratic participation. Table 2 illustrates the items and the democratic qualities they assessed.

In the section on social capital, 11 items (see table 3) evaluated the networks based on the previous research. Schuler's work (1994) suggests that community networks wishing to focus on developing social capital should find ways to develop interaction, to provide information, and to educate and train members within a community. Three items identified whether CNs provide information about formally organized groups and events in a community that provide outlets for members to come together for social or community reasons. Specifically, items nine and 13 identified whether community networks included opportunities to find out about the social, cultural and artistic climate of the community. Some sites, for example, might provide a community calendar that lists fairs, shows, and other types of cultural and social activities. Item 14 identified whether community networks promoted non-profit organizations in the local community. Some CNs provide links to organizations such as the local chapters of the Red Cross and the Boy Scouts; others provide hosting on the community network for non-profit organizations. Item 12 examined the network for the presence of links or information about local health and medical services. Using Carroll & Rosson's (2003) observation that community networks provide outlets for communities to develop a shared set of values, traditions, and folkways, item 10 sought to identify whether networks published content of human interest. This item looked for ways in which networks might include stories about members of the community much like a feature section of a newspaper. In addition, item 17 identified whether the network allowed its members to publish their

own content. Some networks allowed Web hosting for altruistic purposes. For example, some community networks provided space for non-profit organization in the community or space for individual members who wished to develop sites of local interest such as hobby sites.

Other items on the checklist sought to identify ways in which community networks could foster community though interpersonal communication among community members. Items 15 and 16 looked for opportunities networks provided to participate in synchronous and asynchronous communication. In many cases, this included the use of email, public forums, or private messaging services within the community network.

Finally, two design considerations were evaluated in this section. Millen and Patterson (2002) suggest that the use of avatars can encourage interpersonal relationships. Avatars are small identifiable images that members can attach to their signatures whenever they participate in two-way communication. As a result, item 19 examined whether members of community networks could identify other members. In addition, Carroll and Rosson (2003) have pointed out that a sense of community can be fostered by bringing elements of real space to virtual space. This might mean that a network include images on its sight that members can easily identify with in the community. Other sights might organize the network around names and places familiar to community members.

Results

Because community networks are declining, part of this project reported back those networks that are still operating from the list of 150 possible networks. Of those,

104 (69%) of the sites still remained operable. There were 36 sites (24%) that were inoperable at the time of coding while 10 sites (6%) on the list had turned into domains that were no longer community networks. It appeared that some networks had developed into commercial ISPs whereas others, such as library-sponsored sites, had focused on other types of content.

To answer research question one (RQ1), to what extent do community networks focus on developing strong democracy and social capital, frequency distributions were run for the categories of strong democracy and social capital. Data were entered which indicated the total number of items present for each variable. Next, frequency distributions broke down the percentage of community networks by their total number of items (see Tables 4 and 5).

Out of an eight-item analysis for strong democracy, 89.3% of the sample contained fewer than four items on the check sheet (M=2.60, SD= 1.5). A majority of the community networks (64%) contained only two (38.7%) or three (25.3%) of the items on the check sheet. In the 11-item analysis of social capital networks 61.3% of the population contained six or more items on the check sheet (M=5.83, SD= 2.46). Here the majority (60%) of the community networks contained between five and eight of the items on the check sheet while 10.7% of the networks scored on five items, 17.3% on six, 13.3% on seven, and 18.7% on eight of the 11 items. In both variables, none of the networks contained all of the items indicated on the check sheet. However, T-Tests conducted at 95% confidence intervals were significant with ($t = 15.03$, $df = 74$, $p < .000$) for strong democracy and ($t = 20.49$, $df = 74$, $p < .000$) for social capital. This analysis also

provided the answer to research question four. In the eleven-item analysis of social capital, community networks scored higher than they did on the eight-item checklist for strong democracy.

Research question two (RQ2) sought to identify the relationship between the number of sponsors and the extent to which social capital and strong democracy were emphasized on community networks. First, the total number of sponsors was calculated for each sample. A bivariate analysis was conducted between each variable, social capital and strong democracy, and the total number of sponsors for the sample. Findings for strong democracy revealed a moderate correlation, ($r = .30$, $p = .02$) suggesting that the greater the number of sponsors on a community network, the more likely that they will promote strong democracy. However, there was no significant correlation for social capital, ($r = .1$, $p = .44$).

In research question three (RQ3) social capital and strong democracy were examined to determine if there was any significant relationship between these two variables and the population size that a community claimed to serve. In this case, no significant correlation existed for either variable. Pearson correlations returned ($r = -.06$, $p = .60$) for social capital and ($r = .01$, $p = .96$) for strong democracy. Table 6 and 7 illustrate the results.

Discussion

This study suggests that community networks may be doing a better job at developing social capital than earlier research has indicated. A majority of the sites developed site content that was useful and relative for members of a community. It is

difficult to explain why networks have received so much earlier criticism about their lack of specific community content. It may be that earlier networks did a much poorer job at promoting such content than those that have reached sustainability.

Despite this good news, however, it also appears that community networks seem to be doing a much poorer job at finding ways to promote strong democracy. Again, one can only speculate about the reasons for this trend. First, it may be that strong democracy as a practice is not considered as important to a movement that has its roots in social rather than political reform. On the other hand, it may be that certain kinds of democratic building practices require much more maintenance from Web administrators. Forums, for example, particularly political ones, can require a great deal of moderation. They have the potential to be places where flaming, libel, and other incivilities can take place. Logistical concerns may factor in as well. For example, forums and other forms of two-way communication leave opportunities for spamming, site hacking, and other disruptive behavior. As a result, it may be that community networks simply do not always have enough manpower to effectively monitor these types of interactivity among group members. In other words, given that many community networks are run entirely by volunteers, it may be difficult for CNs to implement strong democratic building practices.

In addition, community networks may shy away from such content because it often invites controversy and debate. While debate and discussion may be good for a democracy, they do not always bring about good public relations; community networks may be fearful of delving into areas that could limit their support. This may also explain why multiple sponsored community networks are more willing to engage in such

practices. In other words, community networks that have more equity in sponsorship may also have greater freedom to take risks.

Finally, the research may not give a complete picture of the extent to which community networks focus on democratic ideas. Strong democracy is only one form of democratic theory, and one that may not represent the end goals of community networks. Therefore, while the research suggests that community networks are weak in strong democracy, one cannot conclude that they are devoid of democratic content altogether.

Finally, it is interesting to note that population size does not seem to have an impact on a community's ability to develop strong democracy and social capital. In one sense, these results are encouraging because they suggest that opportunities to develop strong democracy and social capital may be equally great or equally deficient in both large and small communities if other variables exist such as the number of sponsors. Furthermore, these findings may suggest that community networks are one way in which computer-mediated communication can be used to develop stronger social ties and greater political activism in large, urban communities that often lack that "home-town feel" of small rural communities.

Limitations and Conclusion

It is an underlying assumption of this research that social capital and strong democracy should be two important considerations among community networks trying to achieve sustainability. The assumption itself, however, should be tested. Further research should be conducted among users of community networks and site administrators to determine how important these two variables are among parties involved in the

movement. Moreover, while these findings give broad insight into the extent to which community networks are developing content that promotes strong democracy and social capital, other studies need to be conducted to determine which specific types of social and democratic building activities are most useful to users of community networks. For example, the data do not allow us to speculate on whether users actually find links to local government useful or whether forums are places of political discourse or soap boxes for members to vent. Other studies will need to be conducted to answer these questions.

A research study should be conducted to evaluate the quality of the information placed on community networks. The present study, for example, does not report on how often site content is updated or how frequently inactive links are corrected. Longitudinal studies might give additional data about the impact regularly updated content can have on sustainability. It is also important to note that additional variables need to be studied to give a more holistic picture of those practices that might help community networks reach sustainability. For example, during the data collecting process of this study, it was observed that certain sites were much more navigable than others. In some cases, information was buried deep within the interior pages of a site. Ease of navigability may have a significant impact on a site's usefulness for community members, particularly members who are not comfortable with computer-mediated communication.

It is possible that community networks may be one means by which local citizens can find opportunities to engage in a more democratic participant form of media theorized by McQuail (1987). However, only future studies of the movement will allow us to determine if the movement can indeed become influential in helping local citizens

become more involved in political and civic-minded activities in a community. It may very well be that computer-mediated communication does nothing more than provide another opportunity for people who are already socially and politically active in a community. On the other hand, opportunities like community networks may be one means by which reluctant citizens can become more interested in the political and social workings of their own communities. Further studies of the movement may give communication scholars some valuable insight into ways in which newer mass media can work alongside older mass media to meet that mandate placed on media so long ago--to promote content that exists for the "the public['s] interest" rather than for their mere entertainment.

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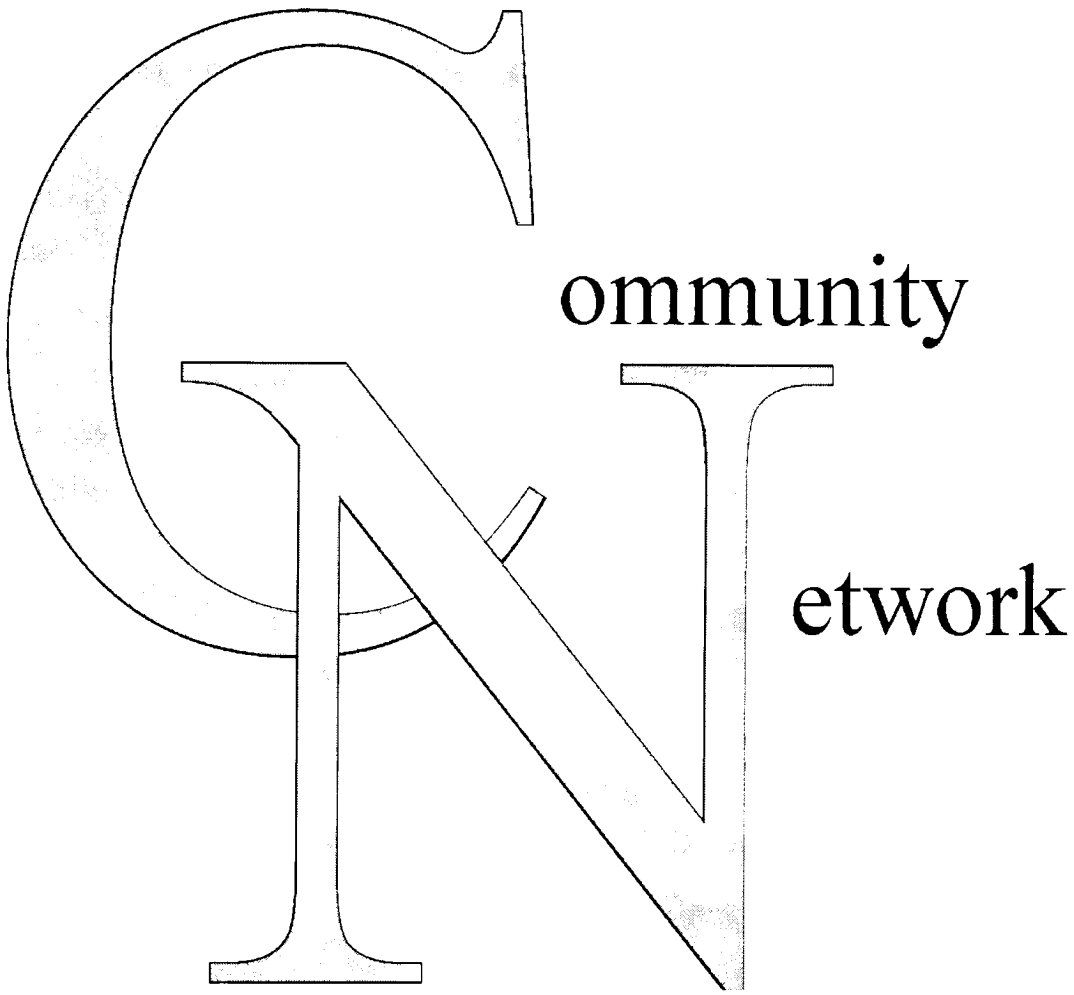
Appendix A



Coding Booklet

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Community Network Evaluation Sheet

I. Name of Community Network	II. Date Established	III. Web Address
	_____ Year Unknown	
	IV. Population Size	**V. Type of Sponsor(s)**
		A. Government B. Library C. Nonprofit D. University E. Corporation F. Other G. Unknown

Democratic, Social Quality of Network	Item Present	Item Not Present	Not able to be determined
VI. Building Strong Democracy			
1. Provides hosting of forums to discuss political issues			
2. Provides information or links to make contact with local government officials			
3. Provides links or site information on local government in addition to contact information			
4. Provides free internet access for economically deprived			
5. Offers polls on local civic issues			
6. Hosts streaming or video of local government content			
7. Offers opportunities for group collaboration			
8. Offers opportunities to give feedback on established public policies or initiatives			
VII. Building Social Capital			
9. Provides information on local social and/or cultural events			
10. Provides content on local human interest stories			
11. Provides information about local education opportunities			
12. Provides information about local health and medical services			
13. Provides information about local arts			
14. Provides information about local non-profit organizations			
15. Offers opportunities for non-specific asynchronous communication among group members			
16. Offers opportunities for non-specific synchronous communication among community members.			
17. Provides opportunities for information sharing on topics of local interest			
18. Incorporates design strategies that denote community landmarks that exist in real space.			
19. Incorporates design strategies that allow community members to identify with one another			
TOTALS			

Directions: The coder should read the coding booklet prior to coding community network sites. Each section of the Community Network Evaluation Sheet has been explained below. Follow the directions for each section precisely.

Each item has been defined for purposes of clarification. In addition, examples have been included in many instances to help coders gain a better understanding of the item's evaluative purpose. It is important to note that examples are not all-inclusive.

Note: The term *local* in this document will refer to the vicinity in which the community network claims to serve. Some networks serve counties while others serve towns or cities. The meaning of local will be dependent on the coverage of the community network.

Section I. Name of Community Network

The name of the community network should be recorded as it appears on the top banner of the Website's homepage. The name should be spelled out in full. Acronyms of the site should be included if available, but the site's name in its entirety must be recorded.

Section II. Date Established

The date established should be located on the "About" section of the site. If no such section exists, the coder should examine links on the site that might provide information about the site's year of formation. Sites that do not include this information should be coded by circling Unknown in the space provided.

Section III. Web address

The URL of the site's homepage should be recorded. Because not all sites have a World Wide Web (WWW) extension, it is necessary to include the www delineation. For example, the Blacksburg Electronic Village should be written as www.bev.net. It is important that coders write capitalization exactly as it appears in the URL.

Section IV. Population Size

Information about the population size will be determined from the U.S. census. The data for this will be collected from www.census.gov. It is important to make every effort to determine whether the community network serves a town, a county, or a city. The coder should examine the site carefully to determine this information.

Section V. Type of Sponsors

Five types of sponsors can be chosen for this data. Coders should examine the "about us" section of the site to determine the major sponsor(s) associated with the site. In cases where more than one sponsor applies, coders should circle all types of sponsorship that are relevant. The following definitions will apply for each category

- *Government*- This includes any municipal body that claims to sponsor the CN whether it be at the town, city, state, or federal level of support.
- *Library*- This includes sponsors from local libraries within a community or support from a library within a university. In either case, the coder

should circle the library for the primary sponsor. Coders should not confuse university library support with university support that comes from some other source outside of the university library. For example, support might come from a school of information science. In this case, the coder should circle university as the type of sponsor.

- *Nonprofit*- Some community networks are self-supporting and have established non-profit status. CNs that claim this status should be marked as sponsored by "nonprofit". In addition, if the community network is supported by some other private group such as a foundation or a fund (non-government) which claims non-profit status, this category should be circled as well.
- *University*- Circle this choice if the community network receives sponsorship from any institution of higher learning whether it is a university, college, or community college.
- *Corporation*- Circle this choice for any community network that receives sponsorship from the business sector. This may include local small businesses, corporations, or any other commercial enterprise.
- *Other*- Any sponsor which does not fit the preceding categories but that is identifiable should be marked as "other".
- *Unknown*- Sites which do not establish their sponsorship should be marked unknown. Coders should examine the site's "about", "contact us", and "information" sections carefully to determine that sponsorship are not

noted. Coders should also examine the site's board or governing committee to identify sponsorship.

Section VI. Strong Democracy

1. Provides hosting of discussion forums to discuss political issues

This category includes bulletin board systems, listerves, Usenet groups, or any other system that allows users to post their comments about local, national and/or state level political topics

2. Provides information or links to make contact with local government officials

Community network sites that possess this quality are making efforts to facilitate contact between citizens and government officials. The term contact here may include the provision of email addresses, phone numbers, and/or mailing addresses. In addition, community network sites may provide a single link to governing bodies that house this information. If this is the case, the coder will still mark this item as present.

3. Provides links or site information on local government in addition to contact information

The purpose of this category is to identify the extent to which government related information has been made available on the network. Information may include but is not limited to maps to government municipalities, phone numbers to govemment offices, information about voter registration, and/or government documents and reports. In addition, community network sites may provide a single link to governing bodies

that house this information. If this is the case, the coder will still mark this item as present.

4. *Provides free Internet access for economically deprived*

Free access here may include access through a dialup-connection, broadband, or DSL. In addition, some sites may provide free access at local public facilities. Sites that do so should be marked "present". Sites that charge a fee, even if it is a minimum, should be marked "not present"

5. *Offers polls on local civic issues*

Polls are opportunities for citizens to provide feedback about issues related to government. These may include the posting of survey questions or opportunities to participate in inquiry polls (non-binding) about topics of civic concern among community members. Some examples might be a poll on zoning ordinance changes, tax increases, or safety concerns.

6. *Hosts streaming or video of local government content*

This item is present if members of a community who cannot attend real space public meetings can view the meetings either synchronously or asynchronously online.

7. *Offers opportunities for group collaboration*

The purpose of this item is to identify opportunities where members might be able to engage in practices that allow them to work in groups. This may include private chat rooms, email access, or forums dedicated to this process.

8. Offers opportunities to give feedback on established public policies or initiatives

The purpose of this item is to identify transactional opportunities where members of a community can continue discussions about policies or initiatives that are already in place. It is different from item five in that item five assesses opportunities to discuss proposed policies and initiatives. Item eight evaluates opportunities to do so once a plan has already been enacted.

Section VII. Social Capital

9. Provides information on local social and/or cultural events

The purpose of this section is to identify ways in which the community network promotes social or cultural activities within a community. For example, some networks may list activities and links to fairs, parades, or club meetings. Others may include a community calendar listing daily activities in the community.

10. Provides content on local human interest stories

This item measures the extent to which a community network seeks to foster positive relations among community members by promoting stories about members of a community and the activities they do. Such stories are not hard news stories that report about serious topics, but instead news that reports on such topics as lifestyle, hobbies, or profiles of people.

11. Provides information about local education opportunities

Community networks that possess this quality may contain information on local elementary, middle and high schools. In addition, some networks may provide links to colleges within the network area it claims to serve. They may also include information on public, private, and parochial institutions in the area. In addition, coders should mark this category present if networks provide information about non-traditional forms of education such as conferences, courses offered by a local business council, or those sponsored by non-profit organizations within the area.

12. Provides information about local health and medical services

Community networks that contain this item may include links or information about area hospitals or home healthcare services, as well as information about senior citizen care options. In addition, coders should mark this item present if sites contain information about health facilities such as the Young Men's Christian Association (YMCA) or Gold's Gym.

13. Provides information about local arts

This item evaluates the site's ability to promote local culture. This may include the promotion of bands, artists, musicians, writers, or any other activity associated with the arts. This information should exist as its own section of the site or be part of the site's usual content. In other words, a single human-interest story on a local artist does not qualify the site for this item.

14. Provides information about local non-profit organizations

Non-profit organizations are organizations in the community that exist for non-commercial purposes. This may include information about churches, clubs, societies, or local charities.

15. Offers opportunities for non-specific asynchronous communication among group members

This item measures opportunities for members to develop conversations about their own interests. Examples of this may include discussion forums, the provision of an email account or member addresses, private messaging services, listerves, or bulletin boards. This item is different from item number seven in that it evaluates opportunities for members to develop their own interests on the community network. The content is not prescribed.

16. Offers opportunities for non-specific synchronous communication among community members.

This item measures opportunities for members to develop conversations about their own interests. Sites possessing this quality will typically host chat forums or include the names of members on an instant messaging service. This item is different from item number seven in that it evaluates opportunities for members to develop their own interests on the community network. The content is not prescribed. It is also different from item number 15 because it evaluates the opportunities for real-time conversation.

17. Provides opportunities for information sharing on topics of local interest

This item looks more specifically at the content of the communicative mechanism on the site. Whereas items 15 and 16 are not content specific, item 17 is. Items 15 and 16, for example, might allow for members to discuss their favorite NFL team. However, item seventeen examines the extent to which the site provides opportunities to discuss local interests. This should not include political discussions as it is addressed elsewhere in the coding sheet. It may, however, include opportunities to discuss local events, local arts, or environmental topics.

18. Incorporates design strategies that denote community landmarks that exist in real space.

Community networks that possess this quality will find ways to bring real-space to their community network. Sites that possess this quality will incorporate design strategies that give the site a local flavor. For example, instead of placing a link called "local government", sites might be linked by the heading Warner Town Hall. Some sites may also incorporate images from local landmarks to accomplish this goal.

19. Incorporates design strategies that allow community members to identify with one another

It is important that community members not remain anonymous on the site. Sites possessing this item would make provisions for members to

identify other members. This may include the use of avatars or other personal graphic representations, actual member names or screen names.

Table 1

Five Major Media Outlets and Their Subsidiaries in the U.S.

Viacom	**AOL/Time Warner**	**News Corp- Rupert Murdoch**
CBS Television	Time Warner Cable	FOX Broadcasting
CBS & Infinity Radio Stations	HBO	Los Angeles Dodgers (baseball team)
The Nashville Network	Warner Bros. Pictures	FX Networks
Country Music Television	Warner Bros. Television	New York Post
Simon & Schuster (publishers)	MAD Magazine	The Weekly Standard
Blockbuster	Looney Tunes	Harper Collins (publishers)
Scribner (publishers)	TBS Superstation	William Morrow (publishers)
Pocket Books	Turner Network Television (TNT)	Zondervan Publishing House (bibles)
Paramount Pictures	Cartoon Network	Avon Books
MTV	New Line Cinema	Regan Books
Spelling Television	CNN	*w/ partial or joint ownership of:*
Nickelodeon	Time Magazine	British Sky Broadcasting
VH1	Fortune Magazine	Fox Sports Net
Showtime	People Magazine	Radio City Television
TV Land	Money Magazine	Speedvision
16 local CBS TV stations	In Style Magazine	Outdoor Life
19 local Paramount Stations	Sports Illustrated	TheStreet.com
w/ partial or joint ownership of:	Book-of-the-Month Club	Music Choice Europe
UPN	Little, Brown & Co. (publishers)	
Sundance Channel	WB Television Network	
United Cinemas	*w/ partial or joint ownership of:*	
Comedy Central	Oxygen Media	
SportsLine USA	Comedy Central	
	Columbia House (music)	
	Court TV	

Universal Vivendi	(which owns	**Disney**	
NBC	Sci-Fi	ABC	*w/ partial or joint ownership of:*
A&M Records	Channel,	Hyperion Books	ESPN
Interscope	Home	Infoseek	Lifetime Television
Records	Shopping	Go Network	Talk Magazine
Island Def Jam	Network,	Miramax Films	Oxygen Media
Music Group	Ticketmaster,	Discover Magazine	The Biography Channel
Motown Records	etc.)		The History Channel
Universal	United		A&E Network
Pictures	Cinemas		
Universal Studios	Sundance		
w/ partial or joint	Channel		
ownership of:	Loews		
USA Networks	Cineplex		

Source: http://www.pbs.org/wgbh/pages/frontline/teach/cool/teach2.html

Table 2

Items that evaluated Strong Democracy

1. Provides hosting of forums to discuss political issues	Participation
2. Provides information or links to make contact with local government officials	Information
3. Provides links or site information on local government in addition to contact information	Information
4. Provides free internet access for economically deprived	Participation
5. Offers polls on local civic issues	Participation
6. Hosts streaming or video of local government content	Information
7. Offers opportunities for group collaboration	Participation
8. Offers opportunities to give feedback on established public policies or initiatives	Participation

Table 3

Items that evaluated Social Capital

9. Provides information on local social and/or cultural events	Information
10. Provides content on local human interest stories	Community
11. Provides information about local education opportunities	Information
12. Provides information about local health and medical services	Information
13. Provides information about local arts	Community
14. Provides information about local non-profit organizations	Information
15. Offers opportunities for non-specific asynchronous communication among group members	Community
16. Offers opportunities for non-specific synchronous communication among community members.	Community
17. Offers opportunities for information sharing on topics of local interest	Information
18. Incorporates design strategies that denote community landmarks that exist in real space.	Community
19. Incorporates design strategies that allow community members to identify with one another	Community

Table 4

Frequency Distributions for Strong Democracy

Text wrap		Frequency	Percent	Cumulative Percent
Valid	0	6	8.0	8.0
	1	6	8.0	16.0
	2	29	38.7	54.7
	3	19	25.3	80.0
	4	7	9.3	89.3
	5	3	4.0	93.3
	6	4	5.3	98.7
	7	1	1.3	100.0
	Total	75	100.0	

Table 5

Frequency Distributions for Social Capital

		Frequency	Percent	Cumulative Percent
Valid	0	2	2.7	2.7
	1	3	4.0	6.7
	2	3	4.0	10.7
	3	7	9.3	20.0
	4	6	8.0	28.0
	5	8	10.7	38.7
	6	13	17.3	56.0
	7	10	13.3	69.3
	8	14	18.7	88.0
	9	7	9.3	97.3
	10	2	2.7	100.0
	Total	75	100.0	