

Bowling Alone but Online Together: Social Capital in E-Communities

James K. Scott and Thomas G. Johnson

In this paper, we present a non-technical overview of new forms of voluntary association called online (or e-) communities and explore the implications they present for community development theory and practice. E-communities are groups of people with common interests that communicate regularly, and for some duration, in an organized way over the Internet (Ridings et al., 2002). They are designed to provide users with a range of tools for learning, personal development, and collective action - all embedded in a complex, continuing, and personally enriching network of social relations. We pose several fundamental questions, including these: a) what are the key features of online communities? b) how do they compare to (offline) communities of place? c) how are they designed and developed? and d) how do e-community members use them to affect collective action? We define key terms related to online communities, place them in the context of broader Web cultural practices, and review emerging literature in online community development. We present findings from case studies of four very different active online communities. Social interaction in these communities was extensive, and surprisingly civil. Web site managers use a variety of community development practices to attract and retain members, and to establish community norms, trust, and collective resources.

Keywords: e-community, online community

Several years ago Robert Putnam captured the attention of many social scientists, policymakers, and community leaders with one simple observation: membership in bowling leagues in the United States was declining (Cf., Putnam, 2000). Statistics showed that bowling remained a very popular leisure activity. However, people were less inclined to participate in the context of more or less formal voluntary associations we call leagues. When considered in isolation, this observation seems quite inconsequential. However, Putnam and others have skillfully linked it with data that show a steady and rather steep decline in American participation in voluntary associations generally for the past fifty years. Along with many other social theorists before them, Putnam and colleagues argued that broad participation in voluntary associations was a chief source of the norms, trust, and collective resources (labeled *social capital*) that are essential to community life.

Putnam's research has inspired thousands of scholars and practitioners around the world to investigate and debate the current state of voluntary associations and their importance to community development. A review of this remarkably vital and productive dialogue is beyond the scope of this paper.¹ However, as scholars and practitioners debate key concepts and research methods, collect and analyze data, and publish research findings about social capital and community development, something very interesting is happening. Even as membership in bowling leagues, service clubs, parent teacher associations, etc. declines, participation in new forms of voluntary associations called *online* (or *e-*) communities appears to be rapidly increasing. Online communities are groups of people with common interests that

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communicate regularly, and for some duration, in an organized way over the Internet (Ridings et al., 2002). These Web-based associations are typically less proximal than community networks or tele-community centers, which have been the focus of recent productive community development research and practice (Cf., Hampton & Wellman, 2000; Gurstein, 2000; Pigg, 2001). E-communities are typically more comprehensive in scope than other computer-mediated-communication technologies, such as discussion lists, chat rooms, Web-based conferencing, or collaboration systems. They are designed to provide users with a range of tools for learning, personal development, and collective action—all embedded in a complex, continuing, and personally enriching network of social relations.

As we will see below, some of the most heavily visited sites on the World Wide Web are, at least in part, platforms for large and active online communities. E-communities are widely used to support online retail and other commercial ventures,² and to facilitate learning and communication for professional development and for sports or hobby enthusiasts. They are attracting increasing attention from information and social scientists and philosophers (Cf., Feenberg & Barney, 2004; Shane, 2004; Ciffolilli, 2003; Shoberth et al., 2003). In this paper, we present a non-technical overview of online communities for a wider audience and pose several fundamental questions. What are the key features of online communities? How are they similar to and different from (offline) proximal communities? Why are they attracting new members? How are they designed and developed? What are their strengths and limitations? What implications do they present for (offline) community development theory and practice?

This paper reviews trends in online community development and invites scholars and practitioners to pursue further investigation and dialogue. It is developed in four sections. First, we define key terms related to online communities, place them in the context of broader Web cultural practices, and review emerging literature in online community development. We then propose research questions and describe the methodology employed to investigate them in four different active online communities. Next, we present research findings. Finally, we review lessons learned and discuss the implications of this research for community development research and practice.

INTRODUCTION

For purposes of this paper, we define community as *a group of people sharing common rights, privileges, or interests, or living in the same place under the same laws and regulations*. Members of community also share, at least to some degree, a sense of common identity as well as the desire or need for at least occasional collective action. This definition can apply to members of a religious community, tenants in a cooperative apartment complex, or residents of a municipality or region. An online community is simply one whose members interact primarily through computer-mediated communication—particularly in a Web environment. In the following paragraphs, we briefly compare the attributes of communities of place and e-communities in the next section.

Online community encourages extensive interaction through a variety of means (often bundled together on the same Web site) such as chat rooms, asynchronous discussion forums, Web logs (or Blogs) (Blood, 2000), and Web-based collaboration systems called wikis (Leuf & Cunningham, 2001).³ People involved in online communities can use these tools to join or start conversations (or projects) whenever they choose. However, a key feature of online community building—and what makes this approach unique—is its use of software such as reputation systems⁴ to augment members' abilities to filter through information, build personal connections, and affect collaborative or collective action. Case and colleagues (2001) argue that online community sites must regulate the amount of communication and information flow intelligently, so that the burdens of membership do not outweigh its benefits. They also contend that to foster community spirit, these sites should allow members to build relationships with members that share particular interests (Case et al., 2001, p. 64). On e-community sites, members' identities are typically persistent. Users can know one another by reviewing more or less elaborate member profiles, and by relying on emerging Web-applications called reputation systems (Resnick,

2004; Masum & Zhang, 2004; Hitlin, 2004). In e-communities, users can distinguish members from visitors. Members are typically assigned greater privileges (such as enhanced access to site features and more influence in community decisions or governance) as well as greater responsibilities. They agree to follow a set of discussion rules or guidelines. In effect, the technologies that filter information, connect potential collaborators, and establish and enforce standards of community conduct represent a *de facto* system of community governance (Shirky, 2003a).

Little is known about the demographics or the motivations of e-community members (Ridings et al., 2002; Horrigan & Fox, 2001; Hitlin, 2004; Nonnecke & Preece, 1999). However, evidence suggests that participation in online communities is clearly compelling to many Internet users. In Table 1, we show a list of popular Web sites that are designed to foster such user involvement. The Web sites are selected to illustrate the range of commercial, non-commercial, recreational, and socio-political purposes that can be pursued. The table reports data available from Alexa—a firm that analyzes continuous usage of the World Wide Web.⁵ The table reports: 1) the date when each community site first appeared online; 2) the number of sites that currently link to it; 3) the number of people per one million Internet users that visit this site—based on a rolling average daily use over the preceding ninety days; and 4) the current ranking of each site in terms of overall user traffic, in relation to over four million Web domains monitored by Alexa.

Table 1: Selected Online-Community Site Usage Patterns: October, 2004*

Online Community Site	Description	Online Start Date	Links	Visitors per 1 Million Internet Users	Website Traffic Rank
http://www.eBay.com	Online auction portal	8/14/95	31,955	24,605	15
http://www.fool.com (The Motley Fool)	Personal finance and investment	6/26/95	12,136	572	1,791
http://www.geocaching.com	Recreation and outdoor adventure involving GPS	7/3/00	2,811	52	12,560
http://www.Ethepeople.org	Political discussion and action site	4/8/96	1,545	7.1	184,937**
http://www.friendster.com	Find old and new friends.	3/22/02	1,068	1,275	115
http://www.meetup.com	Arrange off-line meetings on topics of common interest	8/20/98	1,098	236	3,700
http://www.Slashdot.com	News and alternative views on new technology	2/1/00	33,994	804	1,607
http://www.iVillage.com	News and conversation for topics of interest to women	7/26/95	12,211	1,110	836
http://www.Epinions.com	Consumer reviews on goods and services	2/12/99	13,398	1,009	970
http://www.Wikipedia.org	Designed to generate a dynamic comprehensive reference through collaborative writing.	1/12/01	6,849	2,015	450

*Traffic data gathered from alexa.com on October 13, 2004

**Due to data limitations, Alexa is unable to verify the accuracy of traffic rankings over 100,000.

In a highly competitive, rapidly expanding Web environment, several of these sites have existed for nearly ten years. In a study of user behavior at large retail Web sites, Brown et al. (2002) found that the users who participated in the site’s online communities were nine times more likely to visit the site often, and twice as likely to purchase items. A recent case study on the popular iVillage site found that 93 percent of its members regard the site content to be “very useful” in their everyday lives (Figallo, 2002).

Theoretical Perspectives on E-Community Development

Sociologist Peter Kollock is one of several social scientists to investigate communities in cyberspace (Cf., Kollock, 1998; Smith & Kollock, 1998). He draws on foundational works by Axelrod (1984) and Ostrom (1991) about cooperation and community conflict to build theoretical principles that guide his analysis. These principles, he argues, are keys to the success of online communities.

Axelrod is particularly interested in the social origins and processes of cooperation. He argues that cooperation among people is most likely when: 1) the people have met or are likely to meet in the future; 2) they are able to identify each other; and 3) they are able to assess each other's capacity to contribute to mutual interests and their trustworthiness (See also Ridings et al., 2002). In e-communities, Axelrod's first condition for cooperation often does not hold – although some large communities such as eBay and geocaching.com now facilitate events where members can meet in person. However, many e-communities are designed explicitly to meet conditions two and three in ways that often greatly extend the members' range of individuals with whom cooperation is possible.

Ostrom (1991) is concerned with the management of community conflict, and the classic problem of governing the Commons. Kollock (1998) sees online communities as an emerging form of Commons and extracts four main observations from Ostrom, which are listed below.

1. Communities that share a common resource must have boundaries (e.g., distinctions between members vs. visitors or strangers). Such explicit distinctions make clear who can access and use collective resources and protect the commons from external takings.
2. Rules governing the collective use of resources are geared to the needs of members.
3. Sanctions are appropriate - and wherever possible, enforced by members.
4. Some conflict is inevitable. Community members must be able to access low-cost tools for conflict resolution.

According to Kollock, each of these principles is important in the design and implementation of successful e-communities (Kollock, 1998). Along with these, he proposes at least one other elemental feature, which he applies for both on- and offline-communities. He argues that communities exist around some manifestation of scarcity and/or risk. For example, they facilitate some sort of exchange or (virtual) economy. He argues that apart from risk, there are few incentives for people to collaborate, and there is little need for interpersonal trust. The element of risk encourages the formation of clubs or groups to spread and share risk.

Online versus Offline Community Characteristics

One way to assess the utility of these principles is to compare the features of on- and offline communities of place. Table 2 compares key attributes relevant to community development theory and practice between online and (offline) communities of place, organized by six different features: community membership, personal identity, norms, communication, respect, and social capital. Following Woolcock and Narayan (2000), we define *social capital* simply as: *the norms and networks that enable people to act collectively*.

In communities of place, an individual's membership is, in some sense, automatic and arbitrary—determined by the individual's location of residence or other long-term association with the place (e.g., business operator, property owner, etc.). Community residents may or may not be aware of, or agree with local shared purposes or expectations. They may or may not contribute meaningfully to collective action. Still, they are *de facto* members of their community. Membership in online communities is not tied to proximity. People who wish to enroll in online communities typically register as members, provide information about personal interests, select a name (by which they can be known), and agree to a code of community values or conduct. Membership can be terminated at any time by the individuals or the online community (Web site) managers.

Table 2: Characteristics of Online Communities Versus Communities of Place

	Communities of Place	Online Communities
Membership	Automatic–based on location of residence and social interaction.	Individual choice–based on common interest and contractual agreement.
Personal Identity / Anonymity	Legal. Locatable. Actions are sometimes anonymous.	Extra-legal. Not locatable. Actions are rarely anonymous.
Norms	Formal and informal. Relative and multiple sanctions.	Formal and informal. Fairly absolute and single sanctions.
Authentic Communication	Enabled by interactions at multiple levels. Constrained by congestion, time and space.	Overcomes space-time limits through technology. Constrained by Internet access and lack of media “bandwidth.”
Respect or Status	Not readily apparent. Episodic and emergent. Specific or categorical. Earned by positive contribution and association.	Readily apparent. Cumulative. General. Earned by positive contribution and peer review.
Social Capital	Combined with many other resources to affect collective action.	One of a few resources to affect collective action.

A second important difference between proximal and online communities involves the potential for anonymity and personal identification. Contemporary debates about security and privacy policies underscore the legal and ethical issues associated with personal identity. Marx (2001) illustrates the importance of these issues for social relations as well. In proximal communities, it is relatively easy for members to establish another member’s legal identity, locate, and contact that person whenever they want. On the other hand, sometimes people in proximity may be able to act with anonymity (e.g., when outside their normal social or professional circles). People may use this anonymity to donate to a local charity or to violate a personal or professional trust. In any event, anonymous actions are difficult to trace, and thus, difficult for other members to consider as they work to affect personal or collective goals. In online communities, these conditions are reversed. Community rules and procedures make it difficult or impossible for members to establish a person’s legal identity, or to locate and contact them directly unless that person grants them such permission. However, unlike many Internet chat or game rooms, e-community systems typically encourage members to establish persistent identities. Every action within the e-community is recorded and attributed to the particular individuals involved. Every contribution by a member to the life of the community – and others’ response to it – becomes part of that member’s profile and is available for inspection by any interested member. In that sense, anonymity is difficult to achieve.⁶ The incentives for individual members are clear. They can develop strategies to participate according to their interests, assess the contributions and reputations of others, and manage their own. Actions that violate (formal or informal) community standards can be attributed to individuals, and often, violators are quickly “punished” with ostracism or other sanctions. This unique social setting has significant implications for the theory and practice of community development. In proximal community settings, actors seeking to enlist or mobilize others toward collective action often have very limited information about others’ history and identification with community life. (Typically, this information comes from personal experience or recollection, and/or from third party recommendations.) In online communities, members can monitor the exact history of others’ community participation and commitment. In many communities, they can also assess members’ community influence or effectiveness.

Both types of communities are governed by formal and informal rules or codes of conduct; but they vary by the nature and scope of sanctions used to enforce them. In localities, rules are established and enforced in a broad context of social relations. Individual members can be rewarded or sanctioned in numerous ways, accounting for all sorts of relative circumstances. Penalties and rewards in online communities are much more limited – in part, because their authority is limited. Nevertheless, members of online communities who violate codes of conduct can either be shunned by other members or banished

from community life by site managers. Decisions to sanction members are often arbitrary, absolute, and independent of community member input.

Communication is central to community life. Because of their proximity, local residents can interact and associate in multiple, often overlapping settings of work, service clubs, special purpose projects, or informal social settings. Place, thus offers the potential of rich communication networks and strong social bonds. Of course, as Putnam (2000) and others have argued, the quality of communication in communities is constrained by congestion, and the challenges of finding common space and time to meet (Cf., Wheatley & Kellner-Rogers, 1998). Such barriers to communication may explain in part the rapid growth of online communities (Nonnecke & Preece, 1999). In addition, in proximal communities, particular members often control the flow of relevant information—either through one-on-one communications, or one to many broadcasts. This control of information can affect or impede collective action. From a normative perspective, it can lead to negative outcomes, such as misunderstandings, social exclusion, or reduced community capacity. E-communities use Web technology to help members overcome the barriers of space and time, and pursue more direct and democratic “many-to-many” communication.

Clearly, e-communities can provide venues for rich and sustaining personal communication. For example, a recent study found that eBay hosts 1.5 billion unique Web site visits per month, and the average member of eBay’s online community spends one hour and 48 minutes per visit (Fan & Dierkes, 2004). Two key challenges to authentic communication remain for online communities. The first involves filtering through huge volumes of interaction to find personally relevant conversations. Most e-community Web sites use knowledge management and/or different types of intelligent agents continuously to learn about members’ individual preferences, and thereby direct them to content they will find of interest. The second relates to what Feenburg and Bakardjieva (2004) call the narrow “bandwidth” of communication options. Most interaction is limited to the (remote) use of text or graphics—stripped of information derived from body language, human contact, “pregnant pauses,” and other sensory perceptions. To address this limitation, many online communities are creating offline activities and events. Nevertheless, Web technology will not replace or fulfill the need for intimate human interaction.

Perhaps the most interesting comparison between online and proximal communities relates to the process for acquiring respect and social capital, and the relative criticality of that resource for community life. In online communities, measuring and comparing members’ reputations is essential in affecting individual and community objectives (Ridings et al., 2002). When members register on these sites, they are asked to create a more or less standard user profile. Through accessible profile databases, users (and site managers) can monitor and evaluate members’ community participation. Each member question, comment, or action can be evaluated by interested and qualified⁷ members. These evaluations are quantified by various means, and real time “reputation” scores are readily available for all members. The scores are then used by members to determine the trustworthiness of other members and filter through messages to view the contributions that others consistently find of value. In effect, the scores are measures of each individual’s reputation or social capital within the community. This quantified reputation is one of the only assets individuals can use to pursue recognition and personal or community interests. Member reputation scores are powerful incentives. They are a tangible measure of an individual’s current value to community life. Since these scores are readily accessible to all, many members work hard to manage their scores. They therefore tend to present themselves as intelligent, friendly, fun, and practical to other members, and eager to collaborate in common interest.⁸ Since the scores are presented as perhaps the best and only way to evaluate the trustworthiness and capabilities of others, assessments of member contributions related to a few particular topics of interest may be generalized to all fields of competence. Pursuit of higher scores becomes—for some—both fun and relentless. In a way, these scores measure each member’s access to social capital, which is a real, tangible resource they can use to affect individual or collective action within the e-community⁹ (Resnick et al., 2004).

Reputation in proximal communities is measured and applied much more subtly and fluidly. Members’ reputations are not readily apparent. They must be assessed subjectively. Our experience suggests that typically, in proximal communities, reputations are measured in episodes—not cumulatively.

Reputations are assigned by personal experience, trusted recommendations, and by association. (People are often known by the company they keep). Finally, although relationships and reputation are very important, they are not the only resources available to affect individual and collective action.¹⁰ Financial assets and social status and position are also of great practical value. When investigating power structure and influence in proximal communities, we are often advised to “follow the money.” When evaluating influence among online community members, follow their reputation scores.

It is important to note that the vast majority of e-community members rarely posts messages or contributes directly to community life. Research by Preece (2000) and colleagues (Nonnecke & Preece, 1999; Schoberth et al., 2003) estimates that for every active community poster there are as many as 100 who regularly monitor (or *lurk*) on community sites. Most reputation systems essentially ignore this passive listening. As a result, a large proportion of e-community members have low reputation scores. These members, therefore, may have limited influence within the online community. However, they may gain valuable insight from “listening” to community discussions (Resnick, 2004).

Design Principles for Online Community Development

To build user interest, online community site developers adopt simple but elegant principles of Web design, based on theories of social psychology (Cf., Beenan et al., 2004, Karau & Williams, 1993; Thompson et al., 2002), the use of various types of social software (Shirky, 2003a; 2003b), and the development of knowledge management and reputation systems (Resnick, 2004; Masum & Zhang, 2004). Some of the design principles—summarized and illustrated in a very practical, recent guide by Kim (2000)—are listed below. Although the similarities are not directly acknowledged, we suggest that the principles are quite consistent with good practices in (offline) community development work.

- Define and articulate the site’s purpose. Communities come to life when they fulfill an ongoing need in people’s lives. Remember why and for whom the online community is being built. This vision needs to be expressed in the design, technology, and policies of the online community.
- Build flexible, extensive gathering places, such as discussion threads, chat rooms, blogs, and wikis. Allow members to join or start discussions as they choose. Encourage fun, and informal as well as formal conversation. Help members find lively conversations by organizing them topically, and by posting information about the most popular or most recent postings.
- Create meaningful and evolving member profiles. This helps online community builders learn about site members and helps them to know each other. Profiles can help build trust, foster relationships, and infuse community with history and identity.
- Design for a range of community roles. Address the needs of newcomers without alienating the regulars. Guide newcomers, and offer recognition, involvement, “member in good standing” privileges, and other incentives to regulars.
- Establish a strong leadership development program. Members should have opportunities to learn and accept more responsibility as they wish. Leaders should welcome newcomers, answer questions, advise site managers on content and policies, and help address any potential “problem” members or troublemakers.
- Encourage appropriate community etiquette. Conflict can be civil and invigorating for the community. Post clear ground rules for participation.¹¹ Set up systems that allow enforcement and evolution of standards.
- Promote cyclic events. Use the online community site to promote on- and off-line events, such as conferences, chats with leaders, etc.
- Integrate the rituals of community life. Celebrate community milestones or common holidays. Provide easy access to the history of the online community. Acknowledge personal transitions or successes of members.
- Facilitate member-run subgroups.

Every online community is unique—a product of the vision, technologies, and policies of its builders, as well as the chemistry and participation of its members. There are no standard methods, and certainly no guarantees of community viability. However, the basic software needed to support online communities is readily available. Much of it is accessible to local community groups in open source format, or as free or low-cost services on existing Web sites. Results in online community projects depend in part on the purpose and overall vision of the builders. Application of these principles in proximal community development projects could facilitate significant new public involvement.

METHODOLOGY

To investigate the practical application of online-community principles further, we studied the design and daily activities on four different Web communities. Selection of these sites was designed to reflect the diversity of history, purpose, community social and technical design features, content, overall size or scale, and user activity represented by this approach. Though nascent, much of the research on e-communities to date focuses on their use in e-commerce (Cf., Resnick et al., 2004). We wanted to compare these sites with online communities that are essentially non-commercial in nature. With that in mind, the four communities selected include two commercial sites (eBay.com and The Motley Fool), a recreational site (geocaching.com), and a site designed to promote (U.S.) political and public dialogue (E the People).

The authors registered as members on the sites, participated in and observed community discussion, and monitored how each site applied the design principles described above. This research was conducted independently and compiled during October and November 2004.

RESULTS

Analysis of these e-communities is presented as individual case studies below, and summarized in Table 3.

eBay (<http://www.ebay.com>)

By far, the largest online community site on the World Wide Web is eBay. Founded in 1995 at the beginning of the dot.com era by two entrepreneurs in San Jose, California, – Pierre Omidymar and Jeff Stool (Gomes-Casseres, 2001), its purpose was to create a marketplace on the Web for individual buyers and sellers of goods and services. Since its inception, growth at eBay has been phenomenal. For example, in 1997, the site had 340,000 registered users, and totaled approximately \$40,000,000 in sales. In FY 2004, the company topped \$24 billion in sales and over 95 million users.¹² It is the first—and by far, the largest—auction site on the Web. The site sells everything from airplanes to art work, collectibles, travel, and other services, helping affect trades by individuals and companies around the world. In August 2004, the site had the fifth most unique visitors on the Web—over 48 million (Fan & Dierkes, 2004). The site now averages 1.5 billion unique page views per month.

One of the keys to eBay's success has been its clear commitment to developing a sense of community. To maintain its market leadership and to add value, eBay has to attract and retain millions of buyers and sellers to its site. To do that, they must affect satisfactory buyer-seller exchanges. Satisfactory exchange requires mutual trust – usually between individuals who have never met. One of the ways that eBay fosters trust is through an extensive reputation system (Cf., Lampe & Resnick, 2004; Resnick, 2004). Prospective buyers can learn much about sellers by viewing their member profiles, which include their selling history and ratings or comments from people who purchased items from them in the past. This rating system not only offers buyers and sellers more information, but also rewards them for affecting efficient and reliable transactions. Presumably, individuals who have acquired poor reputations can also be weeded out of the marketplace, thus adding value to the eBay experience.

However, eBay does much more than track the reputation of buyers and sellers. It also wants to help them achieve their objectives, and enroll them to use the site regularly. To do that, eBay creates a site that provides information and satisfactory transactions, along with opportunities for learning, personal development,

fun, and relaxation. This includes e-newsletters, lots of tips for new users, and assistance for experienced buyers and sellers as well. The site also sponsors eBay University, where users can enroll in specific e-learning workshops taught by eBay staff and by experienced users. In addition, eBay encourages users to communicate with one another on individual “about me” pages, and in discussion forums, chat rooms, and topical workshops. Registered users can monitor and join existing forums or start their own. They are expected to follow simple rules relating to discussion and to adhere to a set of simple community values.¹³

Despite the size of the eBay community and the extensive volume of communication it affords, the tone of interaction on the site is surprisingly civil, productive, and *fun*. Users can track and participate in discussions, and they are encouraged to share their feedback or their ideas about how to improve the site—and anyone who wants can review and respond. eBay illustrates the strategies proposed by Kim (2000) and the social psychological framework described by Beenan et al. (2004). For example, eBay responds to user input and makes sure individuals have the opportunity for recognition and reward. The site also provides content for users at various stages in the *life cycle* of the e-community. Visitors, novices, active participants, and expert users all have opportunities to contribute to community life. Users can also assume varying levels of leadership responsibility in the online community. For example, they can help “police” discussion forums, give advice or assistance to new community members, propose, plan or manage eBay events (either on or off line), or participate in eBay University Web courses (as students or teachers). All of this is supported by a staff of technicians, moderators, and educational and community development specialists. The content, the access to a vast market – and the community experience attracts strong user interest. In August 2004, the average user stayed on the eBay site for one hour and 48 minutes (Fan & Dierkes, 2004)—the longest duration of any destination on the Web.

The Motley Fool (<http://www.fool.com>)

The Motley Fool is a somewhat smaller, more specialized e-community. Motley Fool was founded in 1993 by Tom and David Gardner, with the catch phrase, “to educate, amuse and enrich individuals”—particularly about personal finance and investments.

The site averages two million user visits per month, with over 150,000 registered users. The Motley Fool estimates that twenty-five percent of all (U.S.) Web users have visited their site at least once.

The Motley Fool site offers expert advice columns on several key topics in personal finance. It also offers comparison charts for various financial service providers, as well as decision aid tools, such as 401k management and retirement calculators. However, the key to the site’s traffic—and value—is in the user discussion boards. Registered users can choose forums on dozens of topics, related to both personal finance and personal enrichment. Users find the boards useful in learning how to manage investments and identify with the “fool” community.

The site sets a relaxed environment for discussion, and provides a number of tools to help users evaluate the quality of information they receive, and the trustworthiness of other community participants. For example, the site suggests that users evaluate advice from strangers in discussion boards as if they were meeting them at a party. In other words, they should listen for information, but verify with their own research. Users can also recommend comments to others, or file user comments in their favorite foos or ignore them in the future.

Geocaching (<http://www.geocaching.com>)

Geocaching.com is an online community that supports a rapidly growing adventure sport called geocaching. In this activity, participants use global positioning systems (GPS) data and receivers to hide caches filled with mementos and a logbook. They then post the coordinates of the cache on the Web site, along with details on the location, size, type, degree of difficulty, and original contents of the caches. Other geocachers will visit the Web site, register, and search for caches in a given area. Armed with the details provided about the cache, members pursue, and sometimes, find the cache. Each time a cache is discovered, participants are encouraged to take one or more items from its contents and are

Table 3: Comparing Online-Community Characteristics and Strategies

	eBay.com (http://www.ebay.com)	The Motley Fool (http://www.fool.com)	E the People (http://www.ethepeople.com)	Geocaching.com (http://www.geocaching.com)
Purpose	Facilitate the world's largest online marketplace.	Inform, amuse and enrich people interested in personal finances and investment.	Facilitate conversation about political and social issues.	Facilitate the global sport of geocaching.
Member Profiles	Detailed summary of members, designed to give entire history of members activity. Optional member photo.	Excellent summary of members. Fun, informative. Optional interview.	Brief summaries available on hyperlinks of member postings. Standard questions. Optional links to member Web page.	Optional profiles of members, which may include photos, personal information, contact information.
Gatherings	Thousands of forums on eBay Community, product topics and entertainment. Local meetings.	Hundreds of discussion boards. "Folly groups" in 50 states.	Members and guests can join dozens of ongoing conversations.	A few dozen forums based on topics and locations. Real gatherings (event caches) are held occasionally.
Education and Personal Development	eBay University, extensive learning opportunities, success stories.	Topical newsletters. Expert recommendations. Wide range of services.	N/A	Extensive learning opportunities. Geocaching University.
Roles	Extensive services for new comers, expert users, "neighborhood watch," people who host local meetings, and paid "community development" people.	Extensive services for new comers, expert users, people who host local forum members, local coordinators, meetings, and paid "community development" people.	Background materials for newcomers.	Services for newcomers, services for premium users, and cache owners.
Incentives for Trust and Community Development	Detailed member reputation system. The reputation allows for appeals process. Member spotlights. Calendar of events. Encourages buyers and sellers to contribute to charity. Inactive member accounts deleted.	Provides tools for members to manage "favorite boards and favorite fools." Profiles offer strong indirect incentives for users to contribute. Inactive member accounts deleted. Established fun experience.	Clear presentation of community core values. Relevance Scores for each original post. A list people who are online at any moment. Regular e-newsletter to summarize conversation. Inactive member accounts deleted.	Based on honor system. Cache owners may delete inaccurate or indecent Web logs. Inactive member accounts deleted. Members' statistics are automatically reported. Informal competition among users to get finds, hides, and complementary logs. On-line form for rating caches.

Table 3 cont'd: Comparing Online-Community Characteristics and Strategies

	eBay.com (http://www.ebay.com)	The Motley Fool (http://www.fool.com)	E the People (http://www.ethepeople.com)	Geocaching.com (http://www.geocaching.com)
Etiquette and Protection	Explicit policies that are readily accessible. Five basic eBay community values inform all policies. Clear rules and user agreements. Member privacy and security safe guarded.	Excellent disclaimer. Terms of service. Direct support if user has been violated. Users can also block further input from individuals they find annoying.	The site reserves the right to block or terminate. The forums are filtered (and sometimes edited), based on user feedback and a set of dialogue standards.	Terms of participation. Site reserves the right to remove Web logs. Joint responsibility of users to police other members. Members may send e-mail through intermediary to protect identity of both parties.
Events and Rituals	Annual eBay community conference. Local and regional offline events.	Fools radio, syndicated newspaper. Fools conferences and events. Annual member- selected fool award.	N/A	Event caches organized by individuals. Developing geocaching jargon. Geocachers create unique calling cards, Web log styles, and create tagged trinkets.
Outcomes	World-wide. Average site visit -1 hour, 48 min. - longer than any other Website. ** 102,000 links to site***	Preeminent source for analysis and advice re: personal finance and investments. 9,500 links to site.***	Community stats on conversation page shows number of members, postings and visitors. 966 links to members, 800,000 posts.	120,000 caches in 210 countries. 0,000 Web logs per week. 35,000 forum 4,350 links to site.***

** Source: Nielsen Net Ratings, September, 2004. ***Source: <http://www.google.com>. Accessed October 8, 2004

encouraged to leave items of equal or greater value, novelty, or interest. They record comments in the logbook and replace the cache to its exact location. Then, participants go back to the Web site and post results from their search, along with their thoughts on the cache, its condition, its location, and anything else they wish to record.

The new sport was started in May 2000 among a small group of friends. In September 2000, the Web site went public. People joined this e-community, mostly by word of mouth, communicating through a Newsgroup. Soon, a private company called Groundspeak, Inc. was created to own and operate geocaching.com. As of this writing, the Web site records approximately 124,000 active geocaches in 210 countries. On average, about 10,000 Web logs are added to the Web site each day. The site does not report how many active geocachers there are in the world but the number is clearly in the hundreds of thousands from all over the globe.

Geocaching.com offers a series of guidelines for siting and hiding caches in ways that make them safe, sustainable, environmentally responsible, respectful of landowners, and enjoyable for participants. Most caches are hidden on public property with the permission of the appropriate agency. Each geocacher is allocated a Webpage that can be designed as desired but which includes a record of the tally of finds, links to all the geocacher's Web logs, a tally, and links to the caches each has hidden, and links to any photos each has placed on the site.

Geocaching's copyrighted motto is, "The sport where YOU are the search engine." In its short existence, geocaching has evolved significantly by the actions of its members. Geocachers have invented new variations on the caches, organized group-caching events, formed clubs, encouraged official local policies, and even offered classes on geocaching. The sport was started as a non-commercial activity, and even today it is more a user-directed activity than a commercial venture. For most, there is no charge for membership, although users must register to have access to the full Website. There is a premium service that costs \$20 per year that offers additional services such as larger storage space and alerts participants about new caches.

The success of geocaching seems to stem from its appeal to peoples' interest in discovery and attraction to place. It is ironic that a technology whose strength is its virtual and ubiquitous presence should develop an e-community whose essence is place. Yet, one of the key attractions of geocaching is that finding and hiding caches allow people to visit interesting places, share their impressions, and compare them with others who have also visited.

The geocaching.com community provides a venue through which members can develop guidelines and rules for the sport.¹⁴ Locally, park services, state governments, and agencies have established policies and rules to regulate geocaching activities within their jurisdiction.¹⁵ Many voluntary leaders have emerged among geocachers to organize event caches (caches where a time component is added to the latitude and longitude and cachers can meet face to face), to create local clubs, and to petition local and state governments to sanction geocaching.

Geocaching has turned out to be fertile ground for innovators and entrepreneurs. Many different variations have been generated on the basic cache idea, including multi-caches, virtual caches, locationless caches, Webcam caches, and moving caches. The owners of the geocaching.com site moderate some of these innovations in an attempt to maintain the quality of the experience and to maintain ethical and safety standards, but they have generally been very permissive. Entrepreneurs have started to produce and sell trinkets to leave in caches such as geocoins, buttons, compasses, and other things. Others have developed companion businesses such as Geocacher University.¹⁶ Competitive sites such as navicache.com have emerged but do not rival the size and interest level of geocaching.com. Sponsors, including manufacturers of GPS receivers and recently DaimlerChrysler Corporation, have teamed with the owners of geocaching.com to create contests to promote their products. Touristic agencies, such as the Canadian Province of Ontario, have developed and promoted geocaches in their regions as a means of generating more visits.

And, of course, there are deviants. Caches are sometimes stolen, destroyed, or plundered in the language of geocachers. However, this behavior is rare, and the effected caches are usually quickly reestablished in a nearby location. Anyone can register, find a cache, and take what they wish, but rather

than degrading, the cache trinkets often improve over time. Geocachers frequently perform routine maintenance, or even replace other people's caches when they are plundered or damaged. Other deviant behavior such as putting dangerous materials in caches is rarely observed and quickly reported or corrected.

E the People (<http://www.ethepeople.com>)

E the People is a site designed to foster and facilitate honest and open conversation mainly about (U.S.) politics and public issues. It is part of the Democracy Project – a not-for profit organization established by Michael Weiksner and Scott Reents in 1999.¹⁷ The purpose of this site is to encourage civic participation and to use the Web as a way to involve as many different views from different people as possible. E the People attracts significantly less traffic than the examples of e-community described above attract. It is supported not by advertising or user fees, but through contributions from individuals and foundations. Users of the site can: 1) propose, review, and sign electronic petitions; 2) email letters to elected representatives; 3) respond and review real-time results on opinion polls; and 4) participate in e-conversations on dozens of topics.

E the people uses online community building principles to stimulate conversation among users and to build user interest and loyalty (Table 3). For example, forum participants must create a (free) member account and login before they can post comments. Members are asked (but not required) to answer a few brief questions, which then form the basis of a brief member profile. Users can review the profiles of all who contribute to forum discussions. Members use this information to get to know other participants and to help filter through conversations of interest. Member posts are organized by topics and by date. Recent posts are given added visibility on the site. Members are encouraged to respond to posts and to evaluate each post they read as either a positive or a negative contribution. A real-time tally of this information, as well as the total volume of site posts, is presented to encourage lively conversation.

As with other online communities observed, it is surprising how “civil” the community discussion seems.¹⁸ Since it is focused on political issues, clearly, the potential for ugly disagreement exists. The site posts clear guidelines for civil conduct. On occasion, the site filters and/or blocks individual comments. However, in general community members police inappropriate actions. The use of member profiles and the tracking of positive and negative feedback for each post provide incentives for members to guard their reputations and to stimulate further positive conversation.

SUMMARY/CONCLUSION

This paper reports results from exploratory research on how four different Web-based e-communities seek to facilitate social trust and collective action among their users. It is designed to stimulate further study and dialogue regarding the theory, practice, and effects of online community development. The study was designed to provide a descriptive survey for scholars and practitioners interested in e-community development. Our findings suggest that online community Web sites can support rich, compelling, and sustainable social settings and genuine, sustainable communities (Cf., Etzioni, 2004). We see opportunities for dialog between site developers and community development professionals that could advance both disciplines in unexpected ways—in terms of both applications and research.

Applications in Community Development

Online communities offer a number of intriguing possibilities for collective action and community development initiatives, primarily because of their convenience, accessibility, and capacity to facilitate collective action or collaboration. According to Horrigan and Fox (2001), roughly one-third of all U.S. Internet users rely on the World Wide Web as a key source of information about their local community. Roughly, the same percentage of users indicated that the Internet helped them deepen their existing ties to their hometown. Nearly thirty percent of survey respondents reported that the Internet helped them build a connection with people of different race, ethnic, or economic background. Though research on

the demographics of online communities is limited, one study suggests that members generally represent an audience that is otherwise difficult to reach in community development initiatives. They are younger, more urban, more ethnically diverse, less educated, and have lower incomes than the general Internet user population (Hitlin, 2004). A carefully-targeted online community project could provide these and other interested stakeholders with a new way to participate in public dialogue. It could become a means for people to learn more about critical professional or public issues. Community leaders and facilitators can also learn more about stakeholder views through e-communities. Because they can monitor use of discussion forums and chat rooms historically and continuously, community development practitioners can gain a richer and more dynamic understanding of community members' perspectives and concerns than they can with more conventional data collection strategies, such as the use of surveys or focus groups. Community development professionals can not only learn people's views on particular issues, but also learn how people respond to others' perspectives. More importantly, if allowed to discuss in safety and security, people gathering in local online communities might generate new ways to address public opportunities and challenges that would otherwise not have been considered. Online communities can support public events or activities at minimal cost. Using social networking software or the existing technology found at sites such as <http://www.meetup.com>, community development leaders can assist participants directly in building networks or can schedule meetings with interested stakeholders on specific topics. If online community environments are well-planned, users can even have *fun* and be productive at the same time. In short, online communities offer the potential to complement and support a wide range of ongoing community development tasks.

Expanding Community Research

The proliferation of online communities as new social forms and virtual voluntary associations (Ciffolilli, 2003) also offers important opportunities to advance community development research—in terms of both theory and method. The Web-based technology makes comprehensive records of these voluntary associations readily accessible. Community development scholars can pursue both qualitative and quantitative studies of the design, use, and effects of online communities for collective action. To date, we have found no studies of online communities designed exclusively to foster and support place-based community development initiatives. Identification and documentation of such cases would represent an important contribution to the field.

Research on e-communities could help advance our theoretical understanding of (offline) community development as well. In essence, the design and functionalities of online community sites represent Web site managers' embodied, observable, coherent, and systematic theories of community development processes. Research is needed to articulate and compare the theories that underlie various online communities and to assess their performance and effects. Results may affect the theory and practice of offline community development. In particular, we plan to investigate the policies, technologies, and motivations and incentives that help *govern* virtual communities, and seem to support a level of online civility that we did not anticipate at the beginning of the current research. We plan to study further the relationship between members' awareness of online reputations, and the strategies and tactics they use in the accumulation and use of social capital. We plan to compare the attributes and effects of various reputation systems, and to investigate how reputation scores affect interactivity and relative member influence within communities. Finally, it is important to note that our research focuses on the principles, structures, and processes employed in four selected community sites. Subsequent research could provide a broader survey of e-community sites, and more in-depth case studies of individual e-communities (Cf., Shade, 2004). Further research is also needed to measure the perceptions, intentions, and attitudes of e-community developers as well as e-community members (Cf., Ridings et al., 2002).

NOTES

1 For a useful review of the social capital literature, see Portes, 1998.

2 For an interesting account of the commercialization of two online community projects, see Shade, 2004.

3 A wiki is "...a freely expandable collection of interlinked web pages, a hypertext system for storing and modifying information. (It is) a database, where each page is easily editable by any user with a forms-capable Web browser client." (Leuf & Cunningham, 2000, p. 14). Developed by Ward Cunningham at the Portland Pattern Repository, it is software designed to host collaboration spaces on the Web. The term "wiki" derives from a Hawaiian static verb (wikiwiki), which means "to hurry or hasten." In practice, wikis are used by online communities to organize and share their collective knowledge on topics of interest. Wiki users do not need to understand the underlying mechanisms or storage models in a given wiki. They can collaborate to edit or add pages to the community knowledge by simply using their browser. Since every user has exactly the same capabilities, the software is inherently democratic. Wikis are typically based on open source software, so they are easily accessible to interested organizations. They are applied widely in business, in research and educational environments. To review interesting wiki (or wiki-like applications), see <http://www.wikipedia.org> and <http://everything2.com>, as well as a useful site for wiki developers at <http://c2.com/cgi/wiki>.

4 Online reputation systems (also known as recommender or feedback systems) collect feedback from members of an online community regarding past experiences with other members of that community. They are designed to assist e-community members in filtering information, building relationships with members of interest, and inducing good behavior and civil interaction. Systems encourage members to rate others' actions or ideas within the community, aggregate feedback from others, analyze the feedback data, and make results available to the community in the form of member *reputation profiles* (Dellarocas, 2003, p. 3).

5 For more information about how Alexa generates these data, see http://pages.alexa.com/prod_serv/traffic_learn_more.html. Accessed October 15, 2004.

6 In e-communities, even a member's silent observation (what some participants call 'lurking') is recorded in member profiles.

7 Some online communities, such as <http://www.everything2.com>, do not allow members to evaluate others' contributions until they have reached a particular level of tenure and status in the community.

8 The use of reputation scores encourages members of online communities to behave in ways that are contrary to conventional wisdom on social practices of the Internet. Without such scores, individuals act in anonymity, so they are tempted to violate moral and ethical interpersonal communication standards.

9 For an empirical study of the (economic) value of reputation in the eBay online community, see Resnick et al., 2004.

10 As others have noted (Cf., Portes, 1998), powerful actors such as organized crime leaders also accumulate and use social capital to affect collective action that may not always coincide with public interests. Their social capital is maintained and increased, in part, by the presence of information asymmetries. To the extent that they control information flows, they also affect collective action. In theory, web applications such as e-communities can multiply information flows, reduce information asymmetries, and change processes for accumulating and using social capital.

11 For an excellent example of discussion guidelines for an online community, see <http://builder.com.com/2001-6741-0.html>. Accessed November 18, 2004. For an example of discussion guidelines for active web-based community forums managed on local government sites, see <http://www4.co.honolulu.hi.us/idealbb/register/register.asp?mode=&uid=&username=&sessionID={F36316DF-37E7-4273-97AF-4B357AEB6DE5}>. Accessed November 18, 2004, or <http://www6.indygov.org/cgi-bin/ubb/Ultimate.cgi?action=agree>. Accessed November 18, 2004.

12 (<http://www.a1auctions.com/ebayfacts.htm>). Accessed October 8, 2004.

13 (<http://pages.ebay.com/community/people/values.html>). Accessed October 8, 2004.

14 (<http://www.geocaching.com/faq/>). Accessed October 6, 2004.

15 (<http://geocachingpolicy.info/>). Accessed October 6, 2004.

16 (<http://www.geocacher-u.com/>). Accessed October 6, 2004.

17 For a useful background and history of the E the People project, see <http://www.e-thepeople.org/about/fullstory>. Accessed October 8, 2004.

18 Civility in online communities is not guaranteed. For a counter example, see the history of LambdaMOO, http://www.cc.gatech.edu/classes/AY2001/cs6470_fall/LTAND.html, as cited in Shirky, 2003a). Accessed on November 30, 2004.

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