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## Getting on the "E" List: E-Mail Use in a Community of Service Provider

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# Chapter 18

## Getting on the “E” List: Email List Use in a Community of Service Provider Organizations for People Experiencing Homelessness

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### EXECUTIVE SUMMARY

*This case examines how a community of organizations providing service to people experiencing homelessness made use of an electronic mail list. Current economic conditions have encouraged organizations in various sectors—including nonprofits—that might normally compete for scarce resources to collaborate with one another to increase their chances of survival. One set of tools likely to be of value in such relationships includes various online discussion technologies. An examination of this community’s email list use over a three-year period suggests a somewhat complex picture regarding technology use. More specifically, some issues both constrain and enable use. Additionally, seemingly basic and minimal uses of the list provided not only the greatest functionality for the users, but also led to several unanticipated consequences for those involved.*

### INTRODUCTION

Homelessness continues to be a complex social problem in countries such as the U.S. It impacts individuals of all ages, races, and geographic regions. The Department of Housing and Urban Development’s most recent Homeless Assessment

Report (2009) puts the number of persons experiencing homelessness at some point over a year-long period at approximately 1.6 million, with nearly 700,000 on a single night. Other groups estimate as many as 3.5 million people per year experience homelessness (National Law Center on Homelessness & Poverty, 2008). Evidence seems to suggest the current economic situation in this country is

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increasing the number of persons considered homeless. HUD's most recent annual report notes a clear rise in families coming directly from housed living arrangements now seeking shelters; furthermore, a recent report from the National Law Center on Homelessness and Poverty (2009) suggests foreclosures are leading to more people finding themselves homeless. Simultaneously, the number of organizations providing services to this population and the available resources to address the concern is shrinking.

Despite the significance of this social issue, scholars in general have paid relatively little attention to the organizations that must interact with one another to serve those individuals who are homeless (see North, Pollio, Perron, Eyrich, & Spitznagel for a notable exception). Miller, Scott, Stage, and Birkholt's (1995) examination of service provision and Tompkins (2009) recent book on communicating to end homelessness represent some of the only work in the field of organizational communication to touch on this issue. In terms of communication-based solutions, communication technology has been linked directly to individuals who are homeless. Schmitz, Rogers, Phillips, and Paschal (1995) described a free computer-based network system available for use by persons who were homeless—and several sizable programs have emerged in the last two decades to provide free phones and computers with Internet access to users experiencing homelessness (see Dvorak, 2009; Ramey, 2008). The project reported in this current case (called CTOSH, for Collaborative Technologies for Organizations Serving the Homeless) attempts to provide that technological solution to the organizations tasked with providing various services to individuals who find themselves homeless.

## ORGANIZATION BACKGROUND

This case examines an interorganizational network of nonprofits and government agencies provid-

ing service to individuals currently considered homeless in a large metropolitan area in the southwest United States. This network includes approximately 25 organizations directly or indirectly providing support and services to a fluid population of over 4,000 persons experiencing homelessness—including families, unaccompanied youth, and single men and women. The community studied here is like many others with a network of agencies creating a patchwork of service provision—sometimes working in strong collaborative relationships and sometimes working only with minimal awareness of one another. Despite what was sometimes a shared mission to end homelessness, the provider organizations lacked a number of tools (e.g., website, chat tools, discussion forums, collaboration tools, etc.) to help them better interact with one another.

In 2001 the first and second authors received initial grant funding to start what would later come to be called CTOSH (Collaborative Technologies for Organizations Serving the Homeless; pronounced "Sec-Tosh"). Much of the next year was spent securing additional funds, gaining necessary approvals, and conducting baseline research on the current state of collaborative engagement, interorganizational communication, and communication technology use within this network of service providers. Approximately 25 agencies initially signed up to participate in CTOSH. In early 2003, most organizations were given new computers (which oftentimes replaced much slower and older computers), provided with connectivity to high-speed Internet (for those organizations who lacked it), trained for and initially introduced to several new communication technologies (e.g., instant messaging, NetMeeting, email list, website, and a hosted electronic meeting system), and offered ongoing technical support for these tools.

The CTOSH email list was established in April 2003, but did not reach its current configuration until July of that year. CTOSH provided the email list as a means for individuals within the community of service provider organizations or

others interested in receiving information about that community's activities, to post and receive messages. The list was unmoderated, but open to subscribers only. Initially, the list was configured so that all replies went back to the original list as a way to facilitate community awareness; but after a series of unintended personal replies went back to all subscribers, community members requested that replies only go back to the sender (replies-to-all would still go back to the entire list). This change was made in July of 2003, with no other major changes made to the list configuration afterwards. The list was hosted by the university where the researchers were employed at the time of data collection and continues to operate as of the writing of this case.

The CTOSH project officially ended with a final round of data collection in spring and summer of 2006—four years after the initial baseline survey was conducted in this network and three years after the email list, website, and other technologies were introduced to these organizations. Those three years have been characterized by both technology use and nonuse, and thus this network of organizations provides an ideal case site in which to examine email list use and interaction.

## **SETTING THE STAGE: INTERORGANIZATIONAL RELATIONSHIPS AND INFORMATION & COMMUNICATION TECHNOLOGIES (ICTS)**

Interorganizational relationships comprise long and short-term linkages among pairs or multiple partner organizations. "These linkages are seen as the means by which organizations manage their dependencies on resources necessary for organizational survival" (Miller et al., 1995, p. 681). Typically, interorganizational relationships are discussed as one of a number of formal structural arrangements among organizations (including trade associations, voluntary agency federations,

joint ventures, joint programs, networks, consortia, alliances, and interlocking directorates; see Barringer & Harrison, 2000; Oliver, 1990). Researchers and theorists working out of the transaction costs perspective, resource dependence theory, stakeholder theory, and institutional theory among others (Barringer & Harrison) have explored the benefits and costs of given organizations entering specific interorganizational relations (usually with one other organization). Communication scholars have also been a part of this wave of organizational scholarship on these relationships. Studies have included examination of business consortia (Browning, Beyer, & Shetler, 1995), health and human service networks (Miller et al., 1995) and public-private alliances (Heath & Sias, 1999; Keyton & Stallworth, 2003; Zoller, 2004), communication with external stakeholders by organizations (Chency & Dionisopoulous, 1989; Levine & White, 1961; Lewis, Hamel, & Richardson, 2001; Lewis, Richardson, & Hamel, 2003), and the role of technology and technology adoption in interorganizational relationships (Flanagin, 2000; Monge, Fulk, Kalman, Flanagin, Parnassa & Rumsey, 1998).

The communities and networks of practice literature (see Iverson & McPhee, 2002; Vaast, 2004) has been particularly relevant to understanding linkages between interorganizational relationships and ICTs. Vaast concluded from case studies of two networks of practice that ICTs create an awareness of others, reaffirm joint goals, provide access to key resources and relationships, and help create a sense of identity with the broader network practices. Burt and Taylor (2000) found that the use of electronic networks enhanced opportunities for nonprofit organizations to collaborate by drawing upon other organizations for support during campaigns, responding rapidly to events as they occurred, easily drawing on expertise across the globe, and providing knowledge and support to other organizations with similar goals. Butler's (2001) resource-based model of online social structure argued these structures help create

feelings of affiliation, encourage discussion and knowledge sharing, allow for information access and dissemination, and enable collective activities. Butler's analysis of a random set of online, list-based groups concluded that communication activity and list size have both positive and negative effects on the group's sustainability.

One set of tools likely to be of value in such interorganizational relationships include various new information and communication technologies (ICTs) found on the Internet. Wellman et al. (1996) suggested that computer-supported social networks foster a wide variety of cooperative work—providing a means of communication for individuals within and between organizations. Such networks are focused on information exchange, as participants have the opportunity to read, post a question or comment, and receive additional information in return. The ability to broadcast a message through this medium increases the possibility of finding the information sought and can also alter the normal distribution process of that information.

In some ways, there is no shortage of theories and perspectives about technology "use" in the literature. Beyond providing basic access to tools, a number of theories familiar to most readers have offered various technologically-deterministic (see, for example, Daft & Lengel, 1984; Davis, 1989; Short, Williams, & Christie, 1976) or more socially-deterministic (see, for example, Fulk, 1993; Fulk, Schmitz, & Steinfield, 1990; MacKenzie & Wajcman, 1999) explanations for why people use or select certain media. In response, other perspectives such as adaptive structuration (Poole & DeSanctis, 1990; 1992), the duality of technology (Orlikowski, 1992), and the mutual shaping perspective (Boczkowski, 1999) have highlighted technologies and their users as well as the mutual influence of technology use and structure. Drawing heavily on Giddens' (1984) structuration theory, these perspectives have drawn attention to the joint interactions of users and technological structures. This duality of technology,

as Orlikowski described it, demands a consideration of technological and other structures as they influence and are influenced by usage in action.

Two pieces of scholarship help provide some useful framing within this duality. First, Lievrouw (2006) discussed both diffusion of innovation and the social shaping of technology, and used them to illustrate the distinction between determination (order) and contingency (uncertainty) as "seen at several key junctures or 'moments' in new media development and use" (p. 247). These "moments" can include the origin (introduction) of new media, actors (users and other decision makers), dynamics and choices (which involves adoption and use), and consequences of use (both expected and unexpected). For each of these moments, usage issues can be understood in terms of determination and contingency, or the degree to which technology use is shaped by various structural forces and the degree to which user choices influence technology (as well as the possibility that both occur jointly). Second, Boczkowski's (1999) work on mutual shaping is relevant both for the framework it adopts, and for the nature of the technology examined. Boczkowski studied an email list community (the Argentine Mailing list, mostly for Argentine nationals living abroad) and notes various constraints, triggers, and enablements related to the technology, users, and broader structural forces. As he concluded, taking this sort of approach ideally "broadens our understanding of the technology-user relationship in CMC by examining the dynamics of mutual shaping..." (p. 104).

This duality of technology focus seemed especially appropriate in a community of service providers for individuals experiencing homelessness as they encounter various ICTs. First, the network provided a complex social structure in which decisions about use (and nonuse) were made—providing both determination and choice possibilities. Furthermore, the technologies being used in such a community were fundamentally interactive and group based (e.g., an email list),

which made usage decisions more complex than for those used individually or to facilitate even one-on-one interaction. Additionally, the ongoing nature of these communities required perspectives that view media use as subject to both forces of change and stability over time. By considering moments of use ranging from first exposure through everyday use and its consequences, one can be more aware of the situations where users and technologies exert varied degrees of influence on actual technology use.

## CASE STUDY: EXAMINING THE EMAIL LIST

### Research Questions

This case study examines several observations related to the use and non-use of these technologies in this community of providers—focusing most heavily on an email list that in many ways served to define this network of organizations. This focus seems appropriate considering that email lists represent a familiar form of online discussion for many, as one recent survey in the workplace context noted email lists were more common than tools such as blogs, IM, group-based collaboration tools, and web-based teleconferencing (D’Urso & Pierce, 2009). Also, these email list communities “are much more like loosely-knit voluntary organizations than the tightly knit social communities highlighted in prior case studies” (Cummings, Butler, & Kraut, 2002, p. 106), which further points to the need to examine them.

More specifically, the following questions are explored:

- **RQ1:** What are reasons for email list use and nonuse?
- **RQ2:** How are these email lists used and not used in this network?
- **RQ3:** What are the consequences of use and nonuse of these email lists?

## Sources of Case Data

This case study utilized four primary sources of data from various points in time. The researchers tracked email list (and web) usage via automatically recorded logs, used an on-line survey to capture self-reports of email list users, and conducted face-to-face interviews with CTOSH participants (each described below). Additionally, the authors spent numerous hours over the four years of the project in Homeless Task Force meetings, attending events related to homelessness in the area, volunteering through formal programs to serve individuals currently considered homeless, and consulting for the larger Homeless Task Force organization that helps oversee many of these organizations.

### Email List and Other Log Data

Data from 36 months (August, 2003 – July, 2006) of email list usage by members of this community help answer the research questions. More specifically, archived logs indicating not only the message content (which is not the major focus here), but also number of messages, number of subscribed members, number of active posters (versus readers/lurkers), and number of replies/forwards/original messages (by person and by year) were examined. Most analysis allows for a comparison of each of three years of use, as well as changes from year to year and over the course of the full project. Although members of the CTOSH research staff were also email list subscribers and periodically sent messages to the list members, these have been excluded in the current analysis so as to maintain focus on the community of service providers.

### Email List Subscriber Survey

An online survey was used to collect data from email list subscribers about their uses of the email list. The survey was posted for two weeks in late spring of 2006, and an announcement and

two reminder emails were posted to the list to encourage participants to respond to the survey. Forty-four subscribers completed and submitted the survey, representing a 41% response rate. The survey first asked participants to reflect on how often they use and how often they would like to use six different sending/reading aspects of the CTOSH website and email list (the difference between current and desired use was used to create a communication adequacy score for each of these questions). Participants were also asked to rate six items related to the value of the CTOSH email list and six items related to the value of the CTOSH website. The questionnaire also asked questions related to moving conversations started on the list to other media, preferred email list providers, and the importance of nine specific types of list messages (later collapsed into five types): posting general information, requesting information, responses to requests, emphasizing identity and community, and encouraging activist engagement.

### Interviews with CTOSH Participants

Near the end of the three year project, efforts were made to interview a representative from each of the agencies involved in the CTOSH project. The authors were able to conduct 21 interviews. Interview participants were asked about the general character of communication in the network, their participation in collaboration, their personal use of the CTOSH email list and website, reasons for non-use, and changes they observed in the network since the beginning of the CTOSH project. Interviews lasted between 30 minutes and 1 hour, and 120 pages of transcripts were produced from these tape-recorded interviews. Using a combination of open coding (see Emerson, Fretz, & Shaw, 1995; Owen, 1984), analytical induction (Bulmer, 1979; Huberman & Miles, 1994), and a constant comparative method of analysis (see Glaser & Strauss, 1967), the authors eventually arrived at a set of themes to help answer the research questions.

## KEY FINDINGS: EXPLORING USE AND NONUSE

The results are organized here in terms of several general themes related to the three research questions: reasons for use and nonuse, how the technology is used and not used, and consequences of that use/nonuse. These themes represent key findings about this interorganizational network's use and non-use of email lists over approximately three years of this project.

### Fluid Membership and Loose Boundaries

One very prominent theme related to influences on the use or nonuse of these tools concerned the ways in which the fluid membership in this network and the rather loosely defined boundaries of the network promoted and potentially discouraged use of these tools. Part of the issue here is sizable movement of people between agencies and in/out of the provider network generally. Moreover, it is difficult to know who "belongs" to this network at any given time, perhaps because social service groups are characteristically very open and somewhat averse to drawing tight boundaries around membership. Although some agencies are focused directly on addressing homelessness, other service providers are on the edge of this network in that serving individuals who are homeless is a secondary mission (for example, some agencies were focused on teen pregnancy; serving veterans; or serving illegal immigrants all of which had some portion of their client population who were considered homeless). As one interviewee noted "I'm not sure how we ended up as part of the CTOSH group, other than that we are dealing with transition planning for people who were homeless before they came to jail..." [Interview #4].

The introduction of CTOSH provided an opportunity for individuals and organizations to draw somewhat of a line around this dispersed community (e.g., those listed as CTOSH organi-

zations on the website, those who were reached through list announcements about the task force meetings or other planning group meetings). As the email list developed over time, and individuals informally referred to “CTOSH messages / announcements” in face-to-face interactions, its function as a virtual and central information gathering place was enhanced. This ability to define the network increased desire and appropriateness of using these tools. As one former leader of the Homeless Task Force indicated, “The thing about CTOSH, if someone wants to learn about homelessness in [city withheld], go to the [CTOSH] website and sign on to the [CTOSH] listserv. Do those two things before coming to a meeting and acting like you know everything” [Interview #6]. Thus, the need for a marker to determine who was “in” and who was “out” of the provider network, coupled with the need to communicate in a general forum to “all of us,” tended to promote the use of CTOSH tools. The email list became the way to reach others in this community, and that need to reach out encouraged ICT use. Email list users confirmed this, with 76.2% of respondents (n = 32) indicating the email list is the single most effective means they have for spreading information to others in the network (M = 4.21), and 75.0% (n = 30) indicating the email list is the most effective means they have for obtaining information from others in the network (M = 4.10).

However, the fluidity of the user network was also reflected in the list membership. Every year, at least 20 people left the list and another 20–40 new subscribers joined. In fact, over half the membership on the list at the project’s end (n = 64) were not subscribed at the outset of this effort (only 50 members were there from start through finish). This sort of fluidity may also discourage use because users do not know who is “on” the email list. Occasionally, a community leader might inquire as to who was on the list and on a few occasions this information was sent to members—but for the most part, users seemed to only have a vague idea as to who received

CTOSH messages (illustrated most clearly when email list members were sometimes copied on list messages).

## Ownership of Tools

In a second theme related to influences of use and nonuse, analysis revealed the “ownership” of these tools and how that ownership was perceived may have affected use. Most of the participants perceived these tools to be “owned” by the research team who was responsible for CTOSH. Despite providing information at the outset of the project, inquiries were still made by some agencies near the end of the project if the computer equipment provided was really theirs to keep. This construction of who owned the tools tended to create hesitancy on the part of the participants in creating rules and norms for the use of the tools. Only in the very end of the project when it was announced the assessment phase was concluding did the providers begin to discuss on their own what these tools should be used for, how they ought to be named, and how they ought to operate. This lack of perceived internal ownership of the CTOSH tools likely contributed to a general sense of confusion about how the email list and other technology should be used. Approximately 20% of the interview participants noted a lack of certainty about appropriate use of the list. Possibly, many of the “lurkers” on this list did not post due to some uncertainty about how to post and what was acceptable to post. One interviewee noted:

*Like we had a big luncheon a couple of weeks ago... now was that appropriate to send to the listserv, or no? And then, I don't remember any organization really... talking about something, like a fundraiser, or something that their own organization was doing. But, that struck me like “huh, why not?” and wouldn't that be a good thing for everyone else in homeless services to know? [Interview #8]*



Another interviewee expressed desire that some rules for what to post were made clear to the list subscribers, "there is on occasion to where communication is sent through that just kind of creates noise more so than anything else. And you know I just kind of typically delete those when I see them. Maybe if people were to have some sort of standard of protocol or just education about what is appropriate to send out" [Interview #4].

However, in other ways, the ownership issue clearly encouraged use. Beyond providing access, training, technical support, and maintenance of the tools over the course of the project, the list owners also monitored subscribers to the email list and website so that they did not become a place for spam—which almost certainly enabled use by the community. In fact, when list subscribers were asked if they'd prefer to have a separate list not owned by the research university (but potentially subject to advertising), two-thirds of respondents ( $n = 28$ , 66.7%) indicated they did not want to switch to a commercial provider ( $M = 2.21$ ). Thus, the owners of the technology were clearly not objective third party researchers in this project, but both directly and indirectly encouraged and discouraged use of these tools as actors in the construction of these technologies.

### **Time Demands and Needs for Efficiency**

A third theme concerning use and nonuse of these tools relates to the real need for these providers to be efficient with use of their time. The substantial time demands and typical understaffing of those agencies involved in service provision to individuals experiencing homelessness necessitated that everyone prioritize their time carefully. As one respondent (who eventually agreed to complete the interview) described his time crunch in terms of just making time for the interview: "I'm looking at my schedule and having a hard time fitting this in. With the Katrina evacuees and the Rita evacuees... I'm just having a hard time keeping

up..." and after a long pause, "I just don't have the time" [Interview #1]. Another noted "we have two paid staff people...and the rest of our crew is volunteers... and we have days where two volunteers are out and it is two paid staff members and one volunteer, and it is all we can do to keep our head above water" [Interview 8].

These time constraints likely explain why some tools were almost never used. As one community leader shared informally, the "costs" for learning some of the CTOSH provided tools (e.g., instant messaging, NetMeeting, and electronic meeting technology) were simply too great. Although there was some training attended by agency representatives, individuals simply did not have time to really learn new tools and habits; as a result, they were not used. These constraints were even clearer as an explanation for why individuals did not post more messages to the email list. When participants were asked to estimate their current and desired frequency of use for various aspects of the CTOSH tools, using a 1-to-5 scale, participants reported a desire to send more emails to the list; across nearly every aspect of the email list participants wanted to use the tool more than they actually do.

However, the need for efficiency was also a driver for some people's use of the email list. Most members were subscribed to the list by the owners based on existing email records or individual requests; consequently, there was no cost involved and messages appeared in one's inbox. Furthermore, the email list made it possible to efficiently send messages to multiple others in the network, and to usually receive replies quickly as well. As one interviewee commented about the responsiveness of this community through CTOSH list requests for information: "what I found as a partner in CTOSH is that people want to give you information. If they've got it, I'm not going to be sitting here waiting... I'll have something that day and by the next day I'll have several more responses and that is good" [Interview #8]. Especially for busy service providers

in this sort of interorganizational network, having tools that are efficient to use will encourage use.

### High-Touch, Low-Tech Norm

A final theme related to the explanations for nonuse of some CTOSH tools (including the list) centered on a conception of their “business” as one that is high-touch and low-tech. As one interviewee put it, “life is about who shows up. People are just not ready for the disconnect technology creates. We are in a high touch business. A lot of what we do is consensus work; not a lot of formal voting taken” [Interview #6]. Another interviewee said, “I’m such a people person that I’d think I’d rather call someone on the phone” [Interview #8]. This respondent went on to explain, “yeah everything feels so much more grass roots and non-tech, not even low-tech, but non-tech practically... just more front-line feel I guess.” Some users seemed a little apologetic that they had no interest in most of these tools, but also satisfied with doing things in the more traditional low-tech way. This strong preference served as an explanation for lack of enthusiasm about some new technologies.

### Sharing of General Information

In the first of the themes about *how* tools were used, the major value of the email list was reported to be posting general information. A strong norm developed over time that the list tool should be used to post information that would be generally useful across a wide spectrum of providers and list subscribers. Although one interviewee noted “sometimes there are things that go out that don’t seem quite appropriate for the whole group. When people hit respond and they really should respond to one person, and they respond to the whole CTOSH list” [Interview #5], this was quite rare (especially after the list was reconfigured four months after its inception, at users’ requests, so that replies went back to the sender only). In general, email list logs note that the list averaged about

27 messages a month (slightly less than one per day), and approximately two-thirds of those were original posts. Only 12% of posts were replies to other messages (and not all of those appear to be replies to other messages on this list) and approximately 22% were items of interest forwarded from other emails. There was a real reluctance to “overwhelm” or annoy others by posting too much unwanted information, which helped sustain email list usability in some ways. But, at the same time, configuring the list not to reply-to-all may have discouraged online discussion and engagement of issues by list members—thus resulting in the tool not being used for certain types of exchange.

As further evidence of this narrow focus, questions posted on the list were nearly always responded to off-list. As one respondent indicated, “Some people might reply to it [the list posts], but a lot of the replies are just like, you know, just small conversations about what we’ve done and stuff. It is more announcements and things you want everybody to know. Like I said, the discussions usually happened off-line of the listserv” [Interview #6]. This was reflected in the survey data as well, where participants were asked if they had ever moved a conversation initiated on the email list to another communication medium. Participants reported taking up conversations most often via personal email ( $M = 3.74$ ), followed by telephone and face-to-face conversation ( $M = 3.21$  and  $3.12$ ). When asked what topics they discuss off-list, participants indicated this often occurs when they are seeking or providing more specific information than the general types of public information encountered on the list, as well as issues related to individual referrals or scheduling.

### Reading and Lurking

In a second theme related to types of use, the analysis suggested that many participants found benefit in “lurking.” Indeed, this list is like most in that there are many lurkers who are subscribed,

but do not post (Rafaeli & Sudweeks, 1997; Schild & Oren, 2005). In fact, of the 50 subscribers who were on the list for the entire 3 years of this assessment, 70% were lurkers. In none of the three years were there more posters than lurkers. In one sense, this represents a type of nonuse because these members are not engaging in any reciprocation to those making posts. Lurkers are constructed as nonusers by others (both "posters" and "lurkers") because they are largely hidden to others on the list.

Yet, this form of use is not necessarily problematic and may even be construed as a beneficial form of use. In the survey, participants were asked to reflect on the frequency with which they performed different actions using the CTOSH tools, using a 1-to-5 scale. They reported reading email list messages ( $M = 4.16$ ) far more often than they reported sending emails to the list ( $M = 2.43$ ). Correlations suggest reading emails on the list is correlated with participants' perceived value of the email list ( $r = .457, p < .01$ ), but sending emails to the list is not. Beyond this, there may be real benefit that not all 100+ subscribers were regularly posting to the list.

### **Uneven Use Over Time**

In a third theme related to types of use, it became clear through observations that use and nonuse varied quite a bit over time. This can be illustrated in several ways, but perhaps the clearest illustration of this variation over time is seen in the email list logs. Over the course of the three years, there is a clear growth in the number of posts, from 234 in the first year to 314 in the second year, to 438 in the third year of assessment. This growth occurs despite relatively stable membership size in terms of list subscribers (averaging 110 for the 3 years).

This use was also punctuated. For example, the periodic announcements of website spotlight articles (journalistic style feature stories on each of the agencies) would produce activity on the website that did not exist otherwise. More

directly, if less frequently, events in the annual cycle of this community (e.g., turning in major funding proposals, the homelessness Stand-down, and high profile fundraising events by major agencies) could produce email list activity. Unexpected events also triggered substantial use. Most notably, during and immediately following Hurricanes Katrina and Rita in August/September 2005, there was a necessity to publicize up to the minute information for everyone to know about evacuees, shelter space, volunteer opportunities, etc. The email list was mobilized by people in a very active way (with usage in the month of September that year up 42 posts from the same month the year before).

### **Redefining What It Meant to be Part of This Community**

In addition to how the CTOSH tools influenced use by helping to place a boundary on this community, this defining and redefining is also seen as a somewhat surprising consequence (the last theme category) of the way members used the technology. By joining the list, having a website spotlight on the website, or being listed as a CTOSH organization on the website, individuals and their respective organizations were more likely to be perceived as legitimately "in the network." This operated on a simple level of increasing awareness of programs; as one interviewee stated, "I like the listserv stuff. I like that people get to know about our program and that I get to know other people's programs" [Interview #4]. This "connection" was evidenced in numerous other interviews that expressed that the label / filter of CTOSH created a sense of belonging among those that used the list. There was, in some cases, a reinterpretation of the community of providers as more tight-knit as a result of their communication behaviors through the list. As one interviewee noted about communication in the network since the introduction of CTOSH, "People are more connected. There is probably much more understanding of what is happening

on a macro level. Before people operated more in their silos. So CTOSH has brought people together” [Interview # 5]. Another noted about the email list specifically, “It provides more cohesion to our community of service providers...” [Interview #9].

Beyond the heightened awareness and cohesion, messages through the CTOSH tools seemed to carry a special legitimacy to them that further defined who was and was not part of this group. When one interviewee was asked “when you get a message through the CTOSH list do you pay a lot of attention to it?” he responded, “yeah, because they want to help homeless people... automatically if they are on CTOSH they are... one of our brothers, one of our sisters” [Interview #5]. Another respondent further discussed using CTOSH as a way to screen email:

*When I open up an email and it is from CTOSH partners, there is no question that I found it valuable. Whether it is going to work for me or not, I have a lot of respect and value for it coming through CTOSH... there are some that I definitely go “who is that?” But “who is that” comes after ... and it is a “who is that?” because I need to know who that is source is, not who I should trust. [Interview #8]*

### Centralizing and Decentralizing

In a second theme about consequences of use of these tools, the prominence of organizations and individuals was often exaggerated as a result of who did and did not use these tools. In some instances, already central users gained additional voice, and in other cases voice was found by those who were previously unheard. Analysis revealed the most prominent members that had been considered highly influential prior to CTOSH were likely to use these tools in a way that augmented that high profile. On the email list, for example, the most frequent posters are often already highly visible members in the community—including the

city’s service coordinator for homelessness, the manager of a large client database, chairs of the Homeless Task Force, and a well-known activist for persons considered homeless. Frequent posters (those making at least one post every two months) dominate the list, with these 13 subscribers (12% of the total) accounting for 84% of all list messages in the final year of the project. In this sense, the active use of these tools by certain members and not others helps to reinforce existing structures.

There is also evidence, though, that use of the CTOSH tools enhanced the profile of organizations and individuals who had previously been perceived as more peripheral. For example, on the email list there is some indication of wider use with 52 different individuals making posts in the last year of the project. Even some of the frequent posters are neither in what would likely be considered high profile organizations nor in official capacities in this network— suggesting that there is some ability to use these tools to gain voice.

## CONCLUSION AND RECOMMENDATIONS

One of the clearest issues illustrated in this case study is the mutual shaping between technology (and other structures) and patterns of technology use within a community of users. This duality was illustrated in how the use of the list and website tended to emphasize a previously non-existent or invisible boundary around this network, and in turn, how that boundary creation served a function for the community that then reified the use of the tools that had created it. The consequence of this boundary reinforcement, for some, was an experience of both “bonding” with others who shared the “inside” status as well as an increased sense of efficiency in reaching “everyone” in the network by using these tools. Ironically, since so few people really knew who the list subscribers were, and no one had really discussed the criteria for who should

be included in the list and who should not, the boundary and the subsequent feelings of "we-ness" they created may not have reflected reality. Still, as one interviewee put it, "It gives me a sense of security to know that there's a network where if there's really something important I need to see I know it will cross my computer screen." This sort of faith in the completeness of this network as it was represented on the list and website was reassuring to the participants and drove them to increasingly require newcomers to learn the CTOSH information and become familiar with the CTOSH postings before being considered "literate." This is remarkable considering that email list posts were made primarily by a small number of community members who contributed whatever they deemed potentially useful information to the list at a given point in time.

Another key conclusion about the use of these tools is how strong this sense of community arose, for the most part, from fairly routine information postings that expressed very little emotionality, group identification, or lengthy prose. Just the existence of the network as it was highlighted by the postings seemed to provide that sense of community to a somewhat beleaguered group of providers too often isolated "in silos" working with overwhelming problems and poor resources. CTOSH seems to have served as a means, however mundane, to create connections. Most importantly, those connections were experienced in a shared and public way. Given the time constraints for large gatherings of these providers, this virtual gathering substituted for other in-person large-scale interactions.

Additionally, evidence suggested despite a stated necessity of "efficiency" in communication, these providers constructed themselves as technologically averse and "high touch." People proclaimed themselves too busy to learn new tools and were more likely to lurk on the list rather than actively post; yet, one of their biggest concerns was time spent (wasted) in excessive communication with others. There seemed little

recognition of sunk costs yielding some return in ultimate efficiency if appropriate tools were adopted. Rather, the explanation for one's own or others' reluctance to use tools concerned the preference for the familiarity of high-touch, face-to-face channels. This seems to be more than a powerful norm, or an outgrowth of poor technological resources. It seems to be a highly held value of these providers. This norm created a real barrier to the exploration of certain ICTS and might have encouraged those like email lists that were not overly technical in nature.

Another interesting dynamic illustrated in this case concerns the ways in which these providers, either due to lack of interest or lack of felt "permission," did not assert their own views on how the tools ought to be used and the norms for communication that applied to them. Aside from initial complaints by list subscribers about the influx of unwanted replies that came as a result of all list replies going back to the full list, providers did not offer up any opinions or suggestions as to how these tools ought to be used or not used. The normative structures for the list emerged out of the actions of the most frequent posters, though few posts were procedural or reflexive about the list itself. Not until the CTOSH project was about to end did some even raise the issue of whether the "re-owned" list and website should continue with the same name (since few knew what it even stood for). Their roles with regards to these tools will now need to be reconstructed as "owners" and it will be interesting to see whether this conversation about the "rules" and norms of use of the list and website will now take place since the research team is out of the picture.

Finally, these tools ought to have opened a door to equalize participation in this network. The "smaller" voices ought to have been amplified if they chose to do so. Organizations who got no cut, or a small cut, of the federal funding pie, could have used this forum as a means to vent concerns, argue for re-prioritization, or raise their own profile among those who had more access and sway with

resource holders. They did not often do this and seem to have self-censored. Again, the same inner circle of "bigger voices" that exist in this network, was replicated in the list and the broader structures off list asserted themselves strongly in use of the list—which is not that surprising in light of duality of technology arguments (Orlikowski, 1992).

These conclusions also suggest several recommendations. First, list organizers and managers should not assume they can always strategically plan lists with user goals clearly in mind; they must recognize the need for tremendous flexibility as well. An "effective" list may be constructed with certain purpose in mind, such as spurring collaboration. But this sort of planning requires a clear sense of user needs and strong user acceptance. The findings suggest that taking a more adaptive and flexible approach to the introduction and use of new technologies is likely the best course when stakeholders' needs and interests are very diverse. In this case of an email list implementation, it was likely beneficial to allow users to make the tool work for them rather than force a narrow vision of what it should do. Although unintended consequences of an innovation can crop up in any effort to introduce a new tool, these consequences may not always be bad. The organizational change and innovation literature has long noted the potential benefits of reinvention, adaptation and modification (Leonard-Barton, 1988; Lewis & Seibold, 1993; Rice & Rogers, 1980; Rogers, 1983). For some scholars this is viewed as a very positive outcome because it demonstrates that users alter the change to fit their own needs and goals.

Second, organizational leaders and savvy organizational members should recognize the power of email lists and other group discussion technologies to define and redefine community. When group boundaries become blurry, membership rolls and technology access serve as more concrete ways of deciding who is and is not part of a community. This suggests some reasonable

control on list membership—not so much to exclude certain organizations or individuals, but to keep it manageable and somewhat recognizable. Knowing that the only people on the email list were those interested in homelessness issues in this metropolitan area helps to demarcate the relevant community. Related to this, knowing that key others with such interests were part of this list makes it essential that all serious stakeholders become part of the online group. Community leaders should not wrongly assume that the list creates some sort of level playing ground where all members are equal; instead, the online structure may both reinforce certain existing structures offline as well as give additional voice to some who previously had few channels for influence.

Finally, technology users and other advocates should learn from this case that sometimes basic uses of fairly simple technologies may be best. Simply sharing information on the list was what best served the community. They in fact rejected even newer ICTs that provided what were seen as unnecessary functions and that may have been too inconsistent with their high-touch culture. It is natural to emphasize the very newest of the new media as one implements advanced tools, purchases technologies, and attempts to stay relevant; yet, finding a match between user needs and available tools demands that researchers and community leaders alike continue to consider a full range of options available to organizational members. Even today, this group continues to rely heavily on the email list and shuns social network sites and other newer ICTs.

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## KEY TERMS AND DEFINITIONS

**Collaboration:** Minimally, collaboration is understood to involve (a) cooperation, coordination, and exchange of resources (e.g., people, funding, information, ideas), and (b) mutual respect for individual goals and/or joint goals.

**CTOSH:** Collaboration Technologies for Organizations Serving the Homeless, a collaborative project between academics and health and human service providers aiming to improve the capacity of homeless service providers in the area to work cooperatively and make use of collaborative

communication tools to improve efficiency and effectiveness of their interaction with one another.

**E-Mail List:** An electronic mail list is a collection of e-mail addresses created either by participants subscribing to a list or being enrolled as part of an organizational need. These lists facilitate regular e-mail communication among participants of the list. They are often maintained by an organization employing special software and the use of an e-mail server.

**Homeless:** The U.S. Department of Housing and Urban Development (HUD) defines a person or family as homeless only when he/she resides in one of the following: (a) places not meant for human habitation, such as cars, parks, sidewalks, abandoned buildings (e.g., on the street); (b) an emergency shelter, transitional housing program, or supportive housing; or (c) in any of the above places even if spending a short time (up to 30 consecutive days) in a hospital or other institution.

**Nonprofit Organizations:** Also known as the civil society sector, independent sector and the non-governmental sector, the generally accepted guidelines include that these are the set of entities that are organized, private, non-profit-distributing, self-governing, voluntary to some meaningful extent, and of public benefit.

**Online Discussion:** An asynchronous message exchange among interested parties. These discussions can occur as part of an e-mail list, through the use of an electronic discussion board, or via other networked technologies that store messages for later receipt and reply.

**Technology Use:** The utilization of any type of communication technology (hardware or software) on a regular basis.

**User:** A specific individual who chooses to employ a particular communication technology as part of ongoing communication efforts.