

**Small Town in the Internet Society:  
Chapleau Is No Longer an Island**

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**Abstract**

We analyze the impact of new digital media on the residents of Chapleau, a remote rural Northern Ontario town. Like urban situations, broadband email facilitates communication with friends and relatives who live both locally and far away. Unlike urban situations, mobile phones are rarely used locally: they are for trips outside of town. Broadband use has aided health-care, shopping and information gathering. Indeed, it is the increased connectivity to the outside that stands out, making Chapleau much less of an “island”.

**Does the Internet Mitigate Isolation in Rural Northern Ontario?**

Social and geographical isolation are key challenges of life in rural and remote regions. Residents of such localities rarely see friends and family who live at a distance, and the availability of goods and services is more limited than in urban areas. While small local populations may foster densely-knit social relationships, they can also limit the scale useful for diversified civic involvements.

Yet, the isolation of rural life is far from a static, foregone conclusion, and the internet (and associated information and communication technologies, “ICTs”) may help to mitigate the downsides of small rural populations and physical distance from other people and places. Some pundits have optimistically imagined that information and communication technologies such as the internet will reduce – and possibly even eliminate – “the tyranny of space and distance” (Malecki, 2003:201), neutralizing the difficulties of physical isolation and equalizing daily life for technology users and the communities they inhabit (Cairncross, 2001).

How accurate are these claims? In studying a remote rural community in Northern Ontario, Canada, we ask,

1. To what extent does the internet and online communication with others – both locally and at a distance – mitigate social and geographic isolation, and foster inclusion in a broader “internet society”?
2. In what respects are the internet associated with local communication and civic engagement? Is the internet associated with the residents’ sense of community and connectedness?

To be sure, rural places were connected to the outside world before the internet. Residents of non-urban areas have always had local and non-local connections with others, adapting existing modes of communication to suit their needs. In the 1930s, the telephone emerged as a tool to reduce social distance and isolation in rural communities. The telephone was arguably most beneficial for rural residents living at a distance from neighbors or other communities, since residents of small towns could enjoy a good deal of in-person communication (Fischer, 1992). In such instances, the greater the geographical isolation, the more that communication technologies should be anticipated and valued.

Variation among rural localities can also affect how, and with what benefits, new technologies are differentially used and embraced. As Wirth (1964 [1956]) recognized, the false dichotomy or continuum between rural and urban fails to take into account nuanced differences among rural and urban, and between agricultural and non-agricultural rural places. For example, a rural, agricultural region within hours of a major city is less remote than a Northern logging or mining community: residents of the former community could do their shopping and social visits with moderate driving, while more isolated individuals might benefit from online shopping and communication to meet these same needs.

Some observers have viewed rural use of high speed internet and ICTs as analogous to Plato’s cave, believing that rural “people don’t understand how disadvantaged they are until they see what they’re missing. . . That’s the opportunity for broadband, to confront social exclusion” (Welsh Minister for Rural Affairs Alun Michael, cited in Brierley, 2005:36). Moreover, the costs and benefits of the internet for rural residents have been inadequately evaluated. As the North American population is predominantly urban and suburban, there has been less research specifically focused on the internet’s association with rural life.

The availability and quality of internet access in rural contexts as compared to urban contexts is an essential starting point for rural analysis. Internet access generally, and high speed (broadband or DSL) internet in particular, is less often available in rural regions. According to the 2005 Canadian Internet Use Survey (CIUS), 47% of Canadian communities did not have high speed access (McKeown, Noce, & Czerny, 2007:4): the communities without were

predominantly rural or remote (McKeown et al., 2007). This availability plays out in rates of internet use. In 2005, just 58% of rural adults used the internet for personal (non-work use), compared to 68% of adults in Census Metropolitan Areas (CMAs) of populations between 100,000 to 249,999, and 73% of adult residents of CMAs with populations over 1 million (McKeown et al., 2007:4). A similar rural-urban discrepancy in access, as well as uneven distribution of high speed internet among rural regions, has been identified in the United States (Whitacre & Mills, 2007; see also Malecki, 2003).

Internet access is a necessary but insufficient condition for use. There are further differences in the quality of accessibility (in terms of speed and bandwidth) and user proficiency (Stern, Adams, & Elsasser forthcoming). As Whitacre and Mills (2007:252,264) observe from U.S. data between 2000 and 2003, digital internet infrastructure explains less of rural-urban differences in high speed divides than education, income, and local network externalities (the concept that utility increases as more people join the network; see Boase, in this issue). Yet, discrepancies in the diffusion of new technologies and high speed internet remain salient, since they contribute to disparities in internet proficiency and less proficient users may miss out on valuable opportunities (Hargittai & Hinnant, 2008; Stern et al., forthcoming).

While governments primarily justify the provision of high speed internet access to remote and rural communities as necessary for economic participation (McKeown et al., 2007), the intangible social outcomes merit attention. Though difficult to measure using economic metrics, the use of ICTs may contribute to social and psychological well-being for rural and isolated residents (Malecki, 2003). For example, internet use appears to have a positive influence on community group involvement (attendance, membership, and leadership). People who are already civically engaged use the internet to mobilize and organize (Stern & Dillman 2006).

Yet, remote and rural residents may be using ICTs differently from urbanites, in part as a function of macro and social level differences in context. For instance, in a comparison of users of the MySpace social network site by type of region, rural users generally signed up to MySpace later than urban users, probably due in part to the slower diffusion of the high speed internet (Gilbert, Karahalios & Sandvig, in this issue). Rural users' socially close MySpace ties live physically closer (and more often also live in rural regions) than urban users' socially close ties, yet about the same percentage of urban and rural users communicate with friends and acquaintances on social network sites. Internet use may affect the ways in which relationships are maintained locally and at a distance. Rural MySpace users have fewer friends online than urbanites, and these friends live closer to home. Stern and Dillman (2006) observed a negative relationship between rural internet use and having three close friends or relatives living locally. However, they also found that people whose socially closest friends live outside the community are more likely to use the internet; this effect increases the further apart that friends lived.

In short, the contextual distinctions of the social and structural conditions of remote and rural life, coupled with the associated discrepancies in both availability and quality of internet services and ICTs, raise questions about the use of these technologies in rural settings. To investigate how the internet has changed life, communication, and community in a remote, rural locality, we analyze quantitative and qualitative research findings from Chapleau, Northern Ontario, Canada (see also Collins, 2008).

## Background

### Chapleau is like an island

Chapleau is like an island: We're two hours from Timmins, three hours from the Soo [Sault St. Marie] and five hours from Sudbury, with nothing in between.  
[Female focus group participant]

Chapleau contains many of the challenges frequently associated with rural and isolated communities, making it a good choice to evaluate the potential affordances of high speed internet. Although Chapleau is predominantly surrounded by land (it is adjacent to a small lake), its remoteness from other towns makes it easy to comprehend why one of our focus group participants likened it to an island. Located in Northern Ontario, it is 404 kilometers (251 miles) away from the regional hub of Sudbury, and 776 kilometers (482 miles) from the nearest major metropolitan centre, Toronto. Although Chapleau has an airstrip for small planes, it is not served by any airline; the nearest major airport is in Timmins, 200 kilometers (124 miles) away. There is a small hospital, but a dearth of health care providers necessitates seeking medical specialists several hours drive outside of town, in Timmins, Sault St. Marie, or Sudbury. The two hour drive to Timmins is on a narrow, two-lane highway, and residents must be alert to the danger of potential moose crossings. After heavy snowfalls, drivers must wait until the highway is plowed, and at times, must follow the snowplow out of town. There is no intercity or local public transit.

As of the 2006 Census, Chapleau had a total population of 2,355, of whom 50% were women (Statistics Canada, 2006). The median age of residents was 40 years old (Statistics Canada, 2006). Half (49%) of the adults over age 15 were married. The median annual household income for all families in 2005 was Cdn\$72,981 (less than US\$60,000, Statistics Canada, 2006).

Chapleau's population has been culturally and linguistically bicultural. In 2008, 60% of residents reported English as their mother tongue, and one-third (33%) reported French as their mother tongue. One-half (49%) of the respondents also reported that they were bilingual in both English and French (Statistics Canada, 2006). Although First Nations reserves near Chapleau were not included in this census division, 11% of residents self-identified as being members of First Nations bands. Only five percent of the residents had immigrated to Canada (Statistics Canada, 2006).

Chapleau's population has declined substantially: from 3,077 residents in 1991, to 2,934 in 1996, 2,832 in 2001, and 2,354 in 2006 (the most recent census; Statistics Canada 1996, 2001, 2006). Its economy has historically rested on a combination of logging, lumber mills, a CN rail yard and outdoor recreation (fishing, moose watching, etc.).

The decline of logging has decimated the area's population and economy, with a 17% population decline in five years, from 2001 to 2006. The continuing decline stems from two American phenomena: The U.S. government's violation of the NAFTA free trade agreement about softwood lumber (Parliament of Canada, 2006), and the crash in the American housing market. Focus group participants report that the closure of two of the three local lumber mills has led to unemployment, and that many individuals and families have left in search of work. In addition, as there are no post-secondary education opportunities locally (with the exception of online continuing education courses), youth must leave Chapleau in order to attend college or university full-time. They are unlikely to return, lacking opportunities to advance careers – or

even to get jobs – in Chapleau. The out-migration of students, the unemployed, and their families means that the remaining Chapleau residents have many long distance friends and relatives with whom they would like to keep in contact.

### **Data collection**

Data were collected in Chapleau between 2005 and 2007 as part of the Connected Lives North project. This project was timed to coincide with the implementation of a free high speed wireless “mesh” network in Chapleau in November 2005, a joint demonstration project of Bell Canada and Nortel Networks. Until 2005, only dial-up internet service was available residentially in Chapleau, although high speed internet was available at the hospital, town council offices, and at the library. Within a year after the mesh network was implemented, Bell Canada ran a high speed internet DSL line into Chapleau. By the end of the mesh network project, many residents had switched to the DSL wired network because of its reliability, even though it cost more than Cdn\$40 per month. Once mesh had provided a taste of the high speed internet, many residents were eager to pay for continued access.

Survey data were collected in two waves: the first survey was administered between December 2005 and February 2006, and focused on social interaction and community involvement within the town before high speed internet was widely available. The second survey, in October and November 2006, aimed to assess changes in communication and local engagement associated with the new technology in the later phase of the wireless mesh project.

Responses rates and sample sizes for the two surveys were, respectively, 41% (N = 219) and 31% (N = 159). We use only data from the second survey here, as our interest is in how the established use of high speed internet affects communication and community. (For details on the initial implementation of the high speed service, as reported in the first survey, see Behrens, Glavin & Wellman, 2007). In addition, we conducted in-depth, face-to-face interviews with 33 of the initial survey participants between July 29 and August 1, 2006. The two authors also conducted four focus groups in November 2007, almost two years after the introduction of wireless mesh service. Focus group participants were Chapleau residents (N = 21), representing a mix of citizens and community stakeholders (business and political leaders). Most of the citizen participants were selected from among individuals who had previously completed one of the surveys, while stakeholders were chosen from the town council and local businesses. The survey data were analyzed using SPSS, while the interviews and focus group discussions were coded and analyzed with NVivo.

. To produce a reliable estimate, this network size was calculated from an average of two reports of total network size from the survey: a) the sum of all “very close” and all “somewhat close” contacts, and b) the sum of various types of alters (such as immediate kin, neighbors, co-workers) across both very and somewhat close categories. Since there were few differences between very and somewhat close ties, we combine the two into one measure of total network size.

### **Demographics**

Nearly two-thirds (62%) of the survey sample are women. The mean age is 49 (S.D. 15.95), and participants range from 18 to 91 years old. Our sample reflects the linguistic mix in Chapleau: 59% of participants speak primarily English in the home; 17% speak primarily French, and 23% are bilingual, speaking both French and English at home. Almost all (95%) of

survey participants were born in Canada, a much higher percentage than the 51% Canadian-born participants we found when studying the East York section of urban Toronto (Wellman et al., 2006).

About 60% of the survey participants work for pay (whether full-time, part-time, or self-employed), comparable to the 62% of employed East Yorkers (Wellman, et al., 2006). More than a fifth (23%) of the sample is retired, 9% report being full-time homemakers (most of whom are women), and 4% are between jobs or unemployed. A further 1% are students, and 3% are on disability or long-term leave.

More than two-thirds (70%) of the survey sample are stably partnered (married or in common-law/long-term relationships), larger than 62% of similarly categorized East Yorkers. The remaining participants are widowed (8%), divorced (8%), or single (14%). While 61% of East Yorkers have children, 76% of Chapleau participants are parents, of whom 45% have one or more children under age 18. Just over half of Chapleau participants (51.7%) have at least one child living at home at the time of the second survey.

Educational attainment is lower in Chapleau than in East York: while 43% of the East Yorkers have a university degree, only 11% of Chapleau participants have a university degree, although an additional 23% have a (community/trade) college diploma. While just 27% of the East Yorkers have a high school education or less, 31% of the Chapleau participants have earned a high school diploma or equivalent, and 29% have completed less than high school. These rural-urban demographic differences are consistent with the U.S. Current Population Survey findings that rural household heads tend to be older, married, less ethnically diverse, and have lower levels of education than their urban counterparts (Whitacre & Mills, 2007) – all factors associated with lower rural likelihood of residential internet access and use (Bell, Reddy, & Rainie, 2004).

Four-fifths (82%) of the Chapleau participants report having used the internet at some time, an appreciable increase from the 70% of survey participants who reported being internet users in the first survey wave when the broadband mesh network was first being introduced (Behrens, et al., 2007). Similarly, 82% have home computers. Almost all (88%) home computer owners have internet access at home. Among those with access, 50% used wireless mesh internet at the time of the second survey, 41% had high speed DSL, and 18% used slower-speed dial-up access. (As some participants have more than one type of access, totals do not sum to 100 percent.) Those that have ever used the internet are experienced: they have been using it for a mean of 8.1 years, ranging between less than one year and 26 years.

## **Findings**

### **Local social interaction off and online**

Despite the pervasive use of the internet, face-to-face communication continues to be essential. In a small community, residents are apt to bump into each other at the lone grocery store, post office, or one of the few shops in town. People recognize each other by face, if not by name. For example, Nancy and Suzanne have never exchanged personal details, but recognized each other in a focus group because Nancy pays her bills in person at the utility company where Suzanne works. Residents not only talk to each other because the community is closely knit, but also because “you don’t have a choice – everybody knows everyone around here!” says Suzanne. Sometimes people know too much information about each other, to the point where, in the words

of Ben, an older male focus group participant: “if there is no rumor before noon, we will start one.” Interactions are informal and assume interpersonal familiarity. Sometimes, people “just pick up the phone,” Clarisse says. Or, as David quips: “I go out the door and yell out!” “They all know me, if they want to find me,” Jean points out.

In-person communication is not always possible, since cold weather, sparsely spaced homes, and time spent at workplaces prevent constant proximity with friends, family, and neighbors. Hence, our survey findings show that the landline phone is the most frequently used communication medium for social activities, followed by in-person contact (Table 1). Participants largely keep in touch with friends by phone (76% do so at least weekly) and in-person (60% do so weekly). While email is frequently used (44%), instant messaging (“IM”, 19%) and mobile phones (12%) usage lag behind. Keeping in touch with family members follows the same pattern: 87% use landline phones weekly, 49% keep in touch in-person, 46% use email, 18% use IM, and 12% use mobile phones.

<<Table 1 about here>>

Communication patterns are somewhat different among household members when they are out of the house. Landline phone (44%) and in-person communication (41%) remain the most widely used – although less frequently than for friends and relatives. Email is the third most frequently medium for coordinating family schedules (only 12% use it at least weekly), with mobile phones (8%) and IM (3%) used even less. The choice of communication media reflects contextual constraints. For instance, Harold, a male focus group participant, would rather not call his wife during the work day because it is too public and disruptive. Instead: “We do a little bit through email: if we are coordinating something, or if something changes, or you have to pick up somebody, or there is a doctor’s appointment. We email for that instead of using the phone.” Harold exchanges such communiqués with his spouse a few times a week.

The availability of high speed internet also affects household dynamics—for better or worse. One middle-aged participant, Debbie, reports that web surfing and online games have replaced family time with her husband and two teenaged sons. The demand for computer time caused disputes, and they worry about not having enough bandwidth to accommodate online gaming after they purchased a second computer. “There is no more life in [my] house; that’s all the kids do.”

By contrast, Harold feels that the internet had actually improved his family’s communication. While his teenage daughters are sullen and monosyllabic in person, they are open and communicative when chatting with him via instant messaging. However, the general consensus is that if not controlled, internet use can negatively affect family cohesion.

Local communication is changing within Chapleau. Some focus group participants believe that in-person interaction has declined because residents are at home using their computers. As Brigitte complains:

I have been walking [around Chapleau] for years and it used to be that it would take me two hours because you stop and chat, and now I am back within forty-five minutes. And the kids too, I find I don’t see them as much out as we did, even if they were playing on the streets. And it could be due to that chatting and games.

In sum, Chapleau residents do not rely on the internet for most of their local interaction. They are still using a great deal of landline phone and in-person communication, with some local email added to their communication habits. Rather, much of their online communication is with people outside of Chapleau, or for instrumental activities.

### **Civic engagement and sense of community**

Local email communication is more instrumental than interpersonal. Chapleau residents frequently use email to plan and organize voluntary organizational activities, more so than they use it for socializing locally. As Cécile, a female focus group participant reports, “I do a lot of volunteering. We communicate by email. Be it the Rotary Club or other organizations, it’s all by email and it is constant.” Similarly, David, a leader of such an organization, explains the rationale, finding that email

Just helps us to do the things that we normally do. I’m thinking transmitting information more quickly to all the membership...I don’t have to wait for somebody to answer or I would get the answering machine. Now I just email them. Normally the people I contact are checking their emails often enough that you get a reply.

Many residents are civically engaged within Chapleau. Half (52%) of the survey participants report being active members in at least one voluntary organization, while another quarter (27%) say they are non-active members: they do not attend meetings or contribute money.

In addition to organizational involvements, Chapleau participants frequently socialize with each other. Socializing, like getting involved in organizations, creates networks of trust and understanding that help build and maintain civic involvement (see also Putnam, 2000). While Chapleau residents’ frequency of contact varies, on average, they talk with their neighbors several times a week (mean of 6.6 days per month), hang out with friends at a regular location (such as a pub or coffee shop) more than once a week (mean of 5.0 per month), and enjoy outdoor recreation with friends almost weekly (mean of 3.8 days per month; Table 2). They drop by each others’ homes unannounced a few times a month (mean of 2.2 days per month), and somewhat less often, attend regularly scheduled meetings: about twice a month (mean of 1.7 days per month). In contrast to the more than half of the sample who engage in each one of these face-to-face social activities, few (16.7%) respondents from the total survey sample ever socialize by chatting in online chat rooms: a mean of less than one day (.96) per month.

<<Table 2 about here>>

Chapleau residents feel positively about their community. We calculated participants’ psychological sense of community using the Buckner Community Cohesion scale, an 18-item index of questions assessing participants’ affective ties to their community and fellow residents. Similarly to Wilkinson (in this issue), Community Cohesion scores were squared to compensate for the skewness of values. With a possible range from 1 to 25 (high values representing a high degree of community cohesion), the mean is 13.7 (S.D. 4.0) and a range of 2.4 to 25.0, roughly similar to Wilkinson’s findings.

Of course, not all participants feel equally strongly in their attachments to Chapleau. Those who are more involved in voluntary organizations and socialize more locally, feel more positively about living in Chapleau. Controlling for the number of years living in Chapleau (which itself is a positive, significant contributor), OLS regression suggests that the frequency

with which one chats with their neighbors is one of the key predictors of sense of community; each additional monthly occurrence of chatting with neighbors contributes a significant coefficient of .14. The number of memberships in voluntary organizations and the frequency of engaging in outdoor activities with friends are also significant predictors; cumulatively, the duration of Chapleau residence, the frequency of chatting with neighbors, the number of voluntary organization memberships, and frequency of outdoor recreation explain about 25% of the variance in sense of community cohesion scores. Unsurprisingly, since chatting online (usually via email) is largely with contacts at a distance, it had no significant effect on sense of community. Gender, language (English compared to French), and level of educational attainment were also tested, but were not significant (although level of educational attainment is likely indirectly important, as it is associated with significant differences in the number of memberships in active voluntary organizations).

### **High speed internet, civic engagement, and sense of community**

Using high speed internet does not appear to have significantly changed the residents' civic engagement and sense of community. In analyzing the survey data, the number of hours one spends online from home or work is not correlated with the residents' sense of community, the number of voluntary organizations in which they are an active member, and local socialization activities such as going to a regular hangout or talking with neighbors. This is true both for overall use and for the specific online activities in which they engage, including using the internet for general information, shopping, communication with friends, family, or others, health information, or work-related online tasks. This lack of association is consistent with Quan-Haase et al.'s (2002) U.S. finding that internet use and sense of community were not significantly associated.

Several focus group participants reported a general feeling that residents are isolating themselves, replacing in-person communication with indoor screen time. This has been a widely shared myth among the North American media and the public (Wang & Wellman, 2010). But the data show the opposite. The number of hours spent each week communicating with friends ( $r = .33$ ), family ( $r = .27$ ), and others ( $r = .38$ ) are each positively correlated with the frequency of participating in outdoor recreational activities with friends. There is no correlation between the type of internet connection (dial-up, wireless mesh, or high speed) and any indicators of social and civic engagement, suggesting again that the mere fact of introducing high speed internet service may not fundamentally change local socializing and voluntary participation. Chapleau may not be an exception: a national U.S. survey shows similar results (Wang & Wellman, 2010).

The more Chapleau residents communicate – both online and offline – the more active they are socially (with friends and relatives), the more involved they are civically, and the greater their overall sense of community. This is most likely a positive feedback process: it is equally as accurate to say the more people are involved socially and civically, the more they communicate offline and online. Participants who organize social activities face-to-face on a weekly basis or coordinate social activities by email also frequently drop by others' homes unannounced; attend regular meetings at churches, social clubs, community activities, etc.; and engage in outdoor recreation with friends, such as fishing, moose hunting, and riding all-terrain vehicles in the nearby wilderness.

These pro-social activities are positively associated. The more social plans people make, the more voluntary organizations they belong to, and the greater their sense of community. In

particular, those who see friends and family in person on a regular basis also tend to be more involved in their communities. Moreover, those who coordinate their family schedules in person tend to be members of more voluntary organizations. Seeing friends in-person is correlated with more frequent attendance at civic meetings; indeed, attending these meeting is often a way of seeing friends. Email use is also associated with civic involvement. The more residents use email for keeping in touch with family, the more frequently they attend the meetings of organizations. Moreover, those who use email to organize social meetings are also active members of more organizations.

Not all high rates of communications are associated with more in-person social activity and local civic engagement. For example, organizing social activities by email or landline phone is negatively associated with the frequency of going to a regular hangout. Perhaps, due to the informal, drop-in nature of regular hangouts such as pubs and coffee shops, this kind of social activity does not require advance planning to the same extent as scheduled meetings or voluntary organization participation (Hogan, 2008). People can drop by a familiar hangout with the same ease as the characters of the television show *Cheers*. In addition, the low rates of use of mobile phones and instant messaging likely contribute to the dearth of associations between their use and local social and civic engagement. By contrast, making plans using landline phone is associated with a greater sense of community and a higher number of active memberships in voluntary organizations.

### **Sense of community and residential stability**

Chapleau residents' communication with each other – in person, by landline phone, or through civic involvement – plays a key role in their everyday lives. Their strong orientation towards community helps to keep them residentially tethered: Despite the difficult economic situation, three-quarters (76%) of the residents surveyed say they are not likely to move away from Chapleau within the next year. Those with a higher sense of community are less likely to want to leave within a year ( $r = -.25$ ). In part, this should be anticipated, since some of the measures in the sense of community scale address intentions to remain in the community. Notably, it is truly the local communication that binds, given the positive correlation between stated intentions of moving away and frequency of online chatting, an activity engaged in with distant contacts. In spite of the challenges of their location, participants are inclined to remain in Chapleau. Granted, there are certainly selection factors in the characteristics of remaining residents – those who have had employment or educational opportunities elsewhere may have already left, leaving an older, largely stable population who, by choice and circumstances, are attached to life in this community. Ben, who first moved to Chapleau in 1943, told us that, although he had lived elsewhere for periods of time, he kept coming back, because he “can’t see any other life, other than being close-knit.” To the question of whether they feel isolated in Chapleau Josée and Jack quickly reply,

- Josée: Oh yeah, there’s no question about that.  
 Jack: Obviously it’s not Toronto! And that’s why we live here – because it’s not Toronto! [laughing]  
 Josée: It’s not even Sudbury.  
 Jack: But *we are here because we want to be here*. [Emphasis added]

As Suzanne explains: “I was born here, and Chapleau always has been called the friendliest little town in the north. And it’s true: it is. Everybody tends to help each other if they are in need.”

### Social networks and long distance communication

The out-migration of former residents is a key social dimension of life in Chapleau, and the composition of the residents' social networks – whether predominantly local or distant – affects their communication habits. Largely because of the declining local economy and subsequent layoffs (especially at the lumber mills), nearly one-quarter (23%) of Chapleau residents have left the community since 1991. Yet despite this diaspora, Chapleau networks are still locally based. Of a mean network size of 29 close ties (median 29; S.D. 27) contacts, 83% (mean 24, median 25) live in Chapleau (Table 3).

<<Table 3 about here >>

The other ties live at an appreciable distance: more than an hour's drive from Chapleau: usually much further (mean 9; S.D. 13; median 4). Most are part of a family and friendship diaspora, leaving Chapleau for other opportunities. Most reside in Canada; just 2% of all ties cross an international border. The disparity between the higher mean and the median shows that a minority of residents have many ties living far away.

French-speaking participants have somewhat larger locally-centered networks than Anglophones: 73% of their networks as compared to 64%. Francophones also have a lower percentage of their networks living at a distance than Anglophones (26% compared to 37%). Age is significantly correlated with a larger percent of one's network living locally ( $r = .28$ ). However the differences are not significant (perhaps a function of the small number of Francophones in our sample)

Participants who use the internet have larger median social networks than non-users – the former have a median of 21 network ties (mean of 29, S.D. 25), while non-users have a median of 17 ties (with a comparable mean of 28, S.D. 33; Table 4). This distinction by internet use is consistent with the situation in urban East York (Wellman, et al., 2006) and with a U.S. national study that found that internet users had a median of 37 contacts, compared to 30 for non-users (Boase, et al., 2006). Although the mean differences are not significant, the median number of local ties is lower for internet users: 14 local ties for users, compared to 17 for non-users. Although both internet users and non-users have a median of four ties outside of Chapleau, this difference may reflect the diminished need for the internet to keep in touch with one's ties if they are predominantly local.

<<Table 4 about here >>

Compared to Anglophones, Francophones are significantly more likely to connect in person with their family members at least weekly ( $r = .30$ ). More generally, the geographic location of alters, and in some instances their relational closeness, often reflect or affect how communications are used. The less likely residents are to keep in touch with friends weekly by mobile phone, the higher the percentage of their ties who also live in Chapleau ( $r = -.20$ ). Conversely, the more network members that live at a distance, the more likely are residents to use mobile phones to keep in weekly contact with friends ( $r = .19$ ).

Having a high percentage of distant ties is significantly and positively associated with keeping in touch by email with friends ( $r = .22$ ), and family ( $r = .18$ ). However, the higher the percentage of local ties, the less likely participants are to keep in touch with friends by email each week ( $r = -.19$ ). The geographical distribution of one's ties does not affect the likelihood of

keeping in touch with friends or family, organizing social activities, or coordinating family schedules by either landline phone or instant messaging.

Beyond the characteristics of participants' networks, certain demographic factors also affect communication patterns. Francophones are more likely to keep in touch with family using instant messaging at least weekly. Women are more likely than men to organize social activities weekly using landline phone ( $r = .20$ ). Older individuals are less likely to keep in touch with friends and family on a weekly basis using IM, mobile phone, or email, as well as less likely to organize social activities by email. Moreover, older age is negatively associated with in-person organization of social activities, coordination of family schedules, and keeping in touch with family.

Survey results demonstrate that the one mode of communication unaffected by age continues to be that age-old stalwart, the landline phone. However, while many of the focus group participants report that they continue to use the landline phone, their children (and grandchildren) prefer to rely on instant messaging and Facebook. Given the minimum age (18) for inclusion in our sample, our findings of minimal IM use do not reflect the high use by youth. Moreover, our survey did not include Facebook, which at the time was not widely embraced outside the college-age population.

### **Mobile phones used only for travel and emergencies**

Unlike the habits of urbanites, mobile phone use is not deeply embedded into Chapleau residents' communication patterns. Mobile phones had only been available in Chapleau for about one year by the time of our second wave of surveys in 2006, and two years at the time of the focus groups in late 2007. Even now, not all mobile phone companies operate within town.

Focus group participants report that they mainly use mobile phones outside of Chapleau, such as when they travel to Timmins or Sudbury. Although nearly half (48%) of survey participants report having one or more mobile phones in their household, they are used inconsistently and often just in case of emergencies: only about one-quarter of mobile phone owners (12% of the entire sample) use them weekly or more frequently. Cécile reports that in case of emergencies: "I will leave it on if I am away, out of town. Half the time I don't hear it because I am not accustomed to it, but that's okay." Except for Robert, a business owner who describes himself as being "hooked" on his BlackBerry (which he always keeps on silent mode), other focus group participants see little need for using mobile phones in town. Albert tells us: "mine is turned off, and it's in my lunchbox. If you need to find me, I'm at the shop, or I'm at work or I'm sleeping. And if you call me when I am sleeping, you're not going to like my answer." Similarly, Josée does not see the use of mobile phones "because there's nowhere that you can't get a hold of me in Chapleau. If you want me, you will find me!" In-person, landline telephone and email are still the predominant ways in which residents communicate with each other.

Almost all Chapleau residents choose among modes of communication as appropriate, available and affordable. For example, one female participant uses both email and phone (landline and mobile) to contact family and friends outside of Chapleau. While domestic long distance calls are becoming increasingly affordable, Josée states, "I can't afford to call [my sister in] Switzerland." Instead, she emails her almost daily. Karen, whose daughter attends Queen's University in Kingston, Ontario, accesses her daughter's Facebook page to keep in touch with her. A few parents have their own Facebook pages or MSN instant messaging accounts to bridge

the distance to their kids away at university. Although few Chapleau participants used Facebook or MySpace at the time of our data collection, there are Facebook groups in which ex-Chapleau residents can maintain ties with this diaspora of formerly local family and friends.

### **Creating a feeling of co-presence: “It’s like being there”**

Perhaps the greatest perceived affordance of high speed internet is Chapleau residents’ connectivity to family and friends living elsewhere. The always-on connectivity facilitated by high speed internet (in comparison to dial-up) allows Chapleau residents to access, and be accessible to, family and friends in a way which affords them a sense of co-presence akin to being there. This alleviates some of the psychological, if not physical, isolation of life in Northern Ontario. While in the words of one participant, Chapleau is “like an island,” the addition of the high speed internet to the residents’ existing communication routines has added and enlarged bridges to the outside world. These bridges connect residents with already-familiar family members, relatives, friends and places. Although most internet use is with existing relationships – especially children who have left home and kin who have moved away, half (50%) of the survey participants do report that the internet makes it easier to meet new people.

High speed internet connectivity creates a higher level of sharing that goes beyond that afforded by voice (phone) and text (postal mail). For example, some Chapleau participants enthusiastically use digital photos to keep in touch. As Keith says:

To use high speed in the cities was easy, but sending those to me who had a dial up – oh my God. It would clog up my computer for I don’t know how long. If they send me a picture at a time, it would still take forever. And now it doesn’t matter what they send me. And the quality is there too and it’s kind of nice because you can print them and you have up to date pictures of the grandkids or whoever.

Clarisse concurs. Although she only sees her grandchildren monthly, receiving the photos via the internet helps her remain aware of what is happening in their lives. It is simpler for her than using an internet phone or webcam, and “it’s nice that you get a weekly ‘guess what they did’” through emailed photos. Many residents are taking advantage of this newer possibility, with 60% of surveyed participants owning digital cameras – the third most popular technological “gadget” after DVD players (79%) and desktop computers (62%). Josée also uses computers available in the long-term care wing at the hospital to show her bed-ridden mom the photos her sister has taken of home renovations plus: “her great grandkids, Thailand photos and such. It was really nice. That’s what the internet has done for the seniors. They’re able to use it there.” Thus communicating online (as well as game playing) is a major social boost for those with limited mobility, making the later years of Keith’s 95-year-old father’s life “worth living”.

Internet phone services such as Skype are also a convenient way for some to maintain low-cost visual and immediate communication. Albert explains: “I was using my computer to call a friend. It was great; it was something new for me: internet phone. It was free – the provider would give you a month for free if you bought the thing afterwards.” Exchanging home videos via the web is even more widely embraced by participants. David even bought video cameras for all of his family members as Christmas gifts. Anna, originally from South America, talks with her aging mother back home, who is becoming adept with computers. Anna uses Skype to keep in touch with her geographically dispersed family:

It's a conference call, doesn't cost a cent, and I do the same with my nieces and nephews. I saw the one that was born six months ago because they connected the webcam. My mom was crying because she could actually see me. My mom is 81, and she has the computers. So the fact that she can see her great granddaughter and then Anna, the crazy one that is up north with the polar bears [is wonderful]. My mom is crying and I was thinking "oh my God, this is not good; she's going to have a heart attack or something". It was too emotional. I have been here 22 years and I have only gone [back to visit] three times, I think. She has come to Canada, but now it is hard for her leave, so [Skype] was really so clear, and using the language and my jokes and my gestures, she was touched.

Another participant, Wendy, reports that she "saw my niece's newborn little baby boy when he woke up. She phoned me, said "he's up," so I got on my computer with our webcam." Wendy explains that despite these relatives being located in the American Midwest, it was "just like being there."

The way Chapleau residents are using the internet to experience very immediate and personal interactions with their family members is akin to AT&T's former slogan, "reach out and touch someone." Using webcams and sharing photographs provides residents with a nearly tangible, physical connection to a degree that these participants never quite achieved by using the telephone: Anna's mother was emotionally affected, Wendy feels as though she was actually co-present.

### **Connecting with distant institutions**

The coming of the high speed internet has also eased the ways in which Chapleau residents deal with important issues in their lives: managing their money, shopping, health, and obtaining information. The limited choices of banks and hours of service in Chapleau had constrained options for managing money. Those who have started using high speed internet for this task report that it makes banking much (61%) or somewhat (25%) easier. Others use financial services to invest in the stock market. Some had used the older, slower dial-up internet before, but as one focus group participant told us, banking web pages had taken upwards of four minutes just to load.

The interplay of two new inventions – broadband and speedy courier delivery – means that residents now shop online to order a more diverse range of products online and to have them delivered. Due to the limited shopping choices in Chapleau, participants had always shopped hundreds of miles away: in Timmins, Sault St. Marie, Sudbury, or even Toronto. Although some welcomed the occasional trip outside, the need to travel was burdensome. They now use the web to arm themselves before they leave home: comparing products in advance, and checking out prices to take advantage of retail stores guaranteeing to match competitors' prices. The largest local store has decided to use the internet rather than to ignore it: the store has become the depot for the Sears department store chain and a major electronics chain. The owner goes online to update prices every morning. This way, customers can come in, and receive help in the selection, ordering and delivery. The availability of delivered products is especially useful to seniors, who might not otherwise be able to access the products they wish to purchase (see also Stern & Adams, in this issue).

High speed internet telehealth access has also improved the quality of life. Telehealth services have reduced the time (at least two hours' drive) and expense of traveling for health

care. A webcam link within the Chapleau hospital allows residents to consult with specialists across the province or country. The telehealth services allow participants to get medical test results more quickly via telemetry, without having to drive for hours for a brief follow-up appointment. There is no more danger of a collision with moose in order to have a five-minute consultation about blood pressure or x-rays. A number of residents also check health websites to learn more information about their own or a family member's medical condition, helping them prepare for consultations with physicians or nurse practitioners. Although Hale et al. (in this issue) show that rural Americans use the internet for health information less than those living in urban areas, the situation is quite different in Chapleau, whose residents strongly rely on telehealth. The reason, we believe, is the isolation of this rural community. Telehealth is not a convenience for Chapleau residents: it is a necessity.

The high speed web's vastly greater access to information has benefited all ages. In the words of Cécile: "Our students cannot leave here and go to university and say that they were lacking something in their home town because they certainly are very well connected and can compete. It has leveled the playing field in that respect." Anna, a teacher in Chapleau, has found that her students use the internet for discussions and go to websites that provide help with their homework, such as SOS Homework and SOS Devoir. Harold, a parent, calls the high speed internet "integral" to his children's education, facilitating school projects and access to current information. His daughter is using it to research a paper about global warming: she gets ideas and help in organizing the paper. Although a few adults are taking online continuing education courses, undergraduates have to travel far for full time post-secondary education. As Cécile proudly says: "Our students cannot leave here and go to university and say that they were lacking something in their home town, because they certainly are very well connected and can compete" when they leave Chapleau.

## **The Internet in Everyday Rural life: Transformation and Continuity**

### **Chapleau joins the world**

Spurred by a demonstration project, Chapleau moved quickly from the phone and the dial-up era to the high speed broadband era. It has rapidly become incorporated into the residents' everyday lives. The most important transformations are both social and perceptual. Quite differently than the urban experience, the impact has been more on long distance relationships to people and institutions than on local linkages. Where the internet is a convenience for local use, it is transformative for long distance use. People use it extensively to keep up with friends and relatives in the Chapleau diaspora and to engage with a variety of services and institutions. They no longer live on an island, a very isolated one when icy winter roads make driving hazardous.

Now that they have high speed internet, Chapleau participants would be reluctant to give it up. More than half (56%) of survey participants would miss the internet "very much" if they could not use it anymore, more than a quarter (27%) would miss it "somewhat," while only 17% would not miss it at all. Many eagerly paid to subscribe once they got a taste of high speed broadband. Indeed, when the demonstration mesh project had start-up problems, residents nevertheless "got a taste of the internet" and wanted high speed. Those participants who did stay with the free wireless network were increasingly satisfied with it. Of the termination of the wireless service at the end of the year-long project, Clarisse tells us that residents "knew it [the end] was coming. We knew it was too good to be true."

Residents believe that having high speed internet “extended our life” as a community, according to Robert. As Albert reports: broadband “is the best thing that ever happened here.” They feel that having high speed internet put their community on a level “playing field” – socially and economically – with other cities in the province and country. As Josée puts it: “the internet kind of puts us out there.” While having high speed access has not led to the hoped-for economic boom, bringing only modest increases in job opportunities using high speed internet (such as call centers for pizza delivery), it has changed the residents’ outlook on Chapleau in relation to the world. They feel that it has increased their opportunities for health care, education, and shopping, and has allowed them to be more informed about the outside world. Most importantly, the easier accessibility to friends and family has made them feel less isolated and socially closer with physically distant loved ones. Internet users have more communication, more civic involvement, and a greater sense of community. The process is reciprocal, and not just one way: it is the more involved and community-minded people who have especially taken to the internet.

The implementation of high speed access has been a significant turning point for Chapleau. While Chapleau is still geographically distant from anywhere else, it has allowed residents to participate, through this now open window, with the rest of the world.

### **Rural internet use: Digital difference, not digital divide**

Chapleau represents a specific type of rural context, with particular economic, geographic, socio-political, and cultural-linguistic characteristics that are not found in all rural regions. Nonetheless, as a very remote region that had limited prior experience with high speed internet, it offers a window into the process of a community joining the so-called “Internet Society.” Despite the possibilities and benefits presented by high speed internet, the implementation of high speed internet in rural and isolated regions is unlikely to alleviate all social, economic, and political challenges of rural life. They will not become like their urban counterparts. New technologies are cyclically celebrated as a key to erasing rural-urban discrepancies in lifestyle. We continue to find echoes of this argument in each era. Indeed, Wirth’s observation in 1956 is as central to the present discourse about technology and rural life as it was half a century ago:

The recent profound changes in the technology of living, especially in the United States and to some extent all over the world, have made such notions as we have about rural and urban likenesses and differences obsolete. [...] The radio and, more lately, television[,] promise to produce a virtual revolution. The time has come for a re-examination of the meaning of the concepts ‘urban’ and ‘rural.’” (Wirth, 1964:221-22)

Rural-urban differences persist, despite the emergence of television and now broadband internet. The obstacle of distance and isolation is mitigated by bringing services, goods, ideas, and information directly to residents where they live, rather than requiring individuals themselves to travel to satisfy their needs. However, the claim that all internet users and places can be the same is not well founded. From the perspectives of participants, they do not want their community to adopt what they see as the unenviable characteristics of urban life: anonymity, a lack of face-to-face communication, and less dense social networks. Chapleau’s residents use the internet to stay put and to travel virtually to friends, goods and services. Residents use the internet to reinforce or establish new ties to other organizations and towns through participation in organizations such as the international Rotary Club. The internet helps them to maintain their

collective local sense of identity by “putting themselves on the map” with websites. Several pointed with pride to a local pilot’s “Flying with Rick” YouTube video tour of the area (Korpela & Korpela, 2007). Rather than becoming the same as urban and suburban internet users, Chapleau’s experience shows how the internet can further rural residents’ personal interests and social relationships in a way that reflects their different social, geographical, economic and cultural contexts. In this respect, the internet and online communication clearly do mitigate the challenges of social and geographic isolation.

Too often, analysts – and even residents – see rural internet use as a type of digital divide: never quite catching up to urban use even when broadband arrives. Yet, Chapleau residents are not deprived, and they have eagerly seized on broadband. Their experiences show that physically-isolated rural residents have a different set of needs and opportunities: their internet use is different from urbanites, not inferior. Indeed, in terms of connectivity to the outer world, the internet is more important to Chapleau than it is the urban Torontonians we have studied (Wellman et al., 2006).

However, opportunities for economic, social, and political engagement are based on skill as well as on access (Hargittai & Hinnant, 2008; Stern, et al., forthcoming). This is key, because the mere presence of the high speed internet access in a locality does not guarantee equal inclusion for everyone. One female focus group participant, still on dial-up, explained that because she and her husband are not avid internet users, they just did not bother to try the high speed wireless internet. Such people are unlikely to capitalize on the advantages offered by faster and reliable internet service. Those who do not develop internet skills risk being further excluded as important information, social services, and government resources are increasingly only accessible online. Focus group participants complained, for instance, that when telephoning the provincial government’s information telephone line, a pre-recorded device re-directs them to the government’s website.

For those living within the small towns that now find themselves included in the Internet Society, the reluctance to go online can be overcome. Suzanne’s husband “was so afraid of touching a computer, like it was a real sickness for him to go on, because he had never used a computer before in his life,” yet he now shops for used vehicles online. A basic minimum of personal resources is required: having friends or training courses to show the ropes, leisure time to learn, and the financial ability to buy a computer and pay a monthly internet access fee.

The internet is unlikely to save rural and remote areas from declining economies and out-migration. A remote community is going to stay remote. However, as much as people use the internet, they still must satisfy many of their material and social needs physically and locally. Yet, the experiences of Chapleau residents show that high speed internet can extend the life of a community, by improving the quality of life for residents. If they can “be there” with their family across the continent or world, residents may be more inclined to stay where they are, irrespective of geographic isolation. Chapleau residents feel that their social and economic world has expanded in size. In reality, the world is the same size, and this digital connection has not completely revolutionized rural life. Local community and connectedness has not been replaced by distant online communication. Instead of being an isolated island unto itself, Chapleau has become more like a well-attached island with many internet bridges to the outside. Those living there feel that they have at last joined the world. The communication, entertainment, information, and other utilities available online have embedded the internet as an essential aspect

of residents' lives, one with which they have embraced. As Debbie joked to us: "The internet is like sex. Once you have it, you don't want to give it up. But then there is no more sex."

### References

- Behrens, D., Glavin, P., & Wellman, B. (2007). Connected Lives North – Chapleau: Report on the introduction of high-speed internet to a Northern Ontario rural community. Unpublished report. June 20. Retrieved July 20, 2009 from <http://www.chass.utoronto.ca/~wellman/publications/bell-report/bell-report.pdf>
- Bell, P., Reddy P., & Rainie, L. (2004). Rural areas and the internet. Washington: Pew Internet and American Life Project, February. Retrieved July 12, 2009, from [http://www.pewinternet.org/~media/Files/Reports/2004/PIP\\_Rural\\_Report.pdf.pdf](http://www.pewinternet.org/~media/Files/Reports/2004/PIP_Rural_Report.pdf.pdf)
- Boase, J. (in this issue). The consequences of personal networks for internet use in rural areas. *American Behavioral Scientist*.
- Boase, J., Horrigan, J. B., Wellman, B., & Rainie, L. (2006). The strength of internet ties: The internet and email aid users in maintaining their social networks and provide pathways to help when people face big decisions. Washington: Pew Internet and American Life Project, February. Retrieved August 17, 2008, from [http://www.pewinternet.org/PPF/r/172/report\\_display.asp](http://www.pewinternet.org/PPF/r/172/report_display.asp)
- Brierley, N. (2005, March 14). In need of a master plan. *New Statesman*, 36-37.
- Cairncross, F. (2001). *The Death of Distance*. Boston: Harvard Business School Press.
- Collins, J. L. (2008). Chapleau has joined the world. Master's research paper, Department of Sociology, University of Toronto.
- Fischer, C. S. (1992). *America Calling: A social history of the telephone to 1940*. Berkeley: University of California Press.
- Gilbert, E., Karahalios, K., & Sandvig, C. (in this issue). The network in the garden: An empirical analysis of social media in rural life. *American Behavioral Scientist*.
- Hale, T. M., Cotten, S. R., Drentea, P., & Goldner, M. (in this issue). Rural-urban differences in general and health-related internet usage. *American Behavioral Scientist*
- Hargittai, E. & Hinnant, A. (2008). Digital inequality: differences in young adults' use of the internet. *Communication Research* 35(5):602-621.
- Hogan, B. (2008). "Networking in everyday life." Ph.D. dissertation, Department of Sociology, University of Toronto.
- Korpela, K. & Korpela, J. (2007). "Flying with Rick." Chapleau, Ontario. September 22. Retrieved July 5, 2009, from [http://www.youtube.com/watch?v=g6my0FM9F\\_Q](http://www.youtube.com/watch?v=g6my0FM9F_Q)
- Malecki, E. J. (2003). Digital development in rural areas: Potentials and pitfalls. *Journal of Rural Studies* 19(2), 201-214.
- McKeown, L., Noce, A., & Czerny, P. (2007). Factors associated with internet use: Does rurality matter? *Rural and Small Town Canada Analysis Bulletin* 7(3), 1-15.
- Parliament of Canada, Standing Committee on International Trade. (2006). Minutes, June 19. Ottawa: 39th Parliament, 1st session. Retrieved July 5, 2009, from

- <http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=2302430&Language=E&Mode=1&Parl=39&Ses=1>
- Putnam, R. 2000. *Bowling Alone*. New York: Simon & Schuster.
- Quan-Haase, A, Wellman, B., Witte, J.C., & Hampton, K. (2002). Capitalizing on the Net: Social contact, civic engagement, and sense of community. In B. Wellman & C. Haythornthwaite (Eds.), *The Internet in Everyday Life*, (pp. 291-324). Malden, MA: Blackwell.
- Statistics Canada. (2006). 2006 Community profiles: Chapleau, Ontario. Retrieved July 11, 2009, from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/details/page.cfm?Lang=E&Geo1=CSD&Code1=3552092&Geo2=PR&Code2=35&Data=Count&SearchText=chapleau&SearchType=Begins&SearchPR=01&B1=All&Custom=>
- Statistics Canada. (2001). 2001 Community profiles: Chapleau, Ontario. Retrieved July 11, 2009, from <http://www12.statcan.ca/english/profil/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3552092&Geo2=PR&Code2=35&Data=Count&SearchText=chapleau&SearchType=Begins&SearchPR=35&B1=All&Custom=>
- Statistics Canada. (1996). Population statistics for Chapleau, Ontario. Retrieved July 11, 2009, from <http://www12.statcan.gc.ca/english/profil/Details/details1pop.cfm?SEARCH=BEGINS&PSGC=35&SGC=3552092&A=&LANG=E&Province=35&PlaceName=chapleau&CSDNAME=Chapleau&CMA=0&SEARCH=BEGINS&DataType=1&TypeNameE=Township&ID=8259>
- Stern, M. J., & Adams, A. E. (in this issue). Do rural residents really use the internet to build social capital? An empirical investigation. *American Behavioral Scientist*.
- Stern, M. J., Adams A. E., & Elsasser, S. (forthcoming). How levels of internet proficiency affect usefulness across rural, suburban, and urban communities. *Sociological Inquiry*.
- Stern, M. J., & Dillman, D. A. (2006). Community participation, social ties, and use of the internet. *City & Community* 5(4), 409-424.
- Wang, H., & Wellman, B. (2010). Social connectivity in America. *American Behavioral Scientist*: forthcoming
- Wellman, B., Hogan, B., Berg, K., Boase, J., Carrasco, J.-A., & Côté, R., et al. (2006). Connected Lives: The project. In P. Purcell (Ed.), *Networked Neighborhoods* (pp. 157-211). Guildford, UK: Springer.
- Whitacre, B. E., & Mills, B. F. (2007). Infrastructure and the rural-urban divide in high-speed residential internet access. *International Regional Science Review* 30(3), 249-273.
- Wilkinson, D. (in this issue). Community cohesion and Canadian rural email behavior. *American Behavioral Scientist*.
- Wirth, L. (1964 [1956]). Rural-urban differences. In A. J. Reiss, Jr. (Ed.), *On Cities and Social Life* (pp. 221-225). Chicago: University of Chicago Press.

**Table 1: Percent using different modes of communication  
for weekly communication activities**

	<b>Landline phone (%)</b>	<b>In-person (%)</b>	<b>Email (%)</b>	<b>IM (%)</b>	<b>Mobile phone (%)</b>
<b>Keeping in touch with friends</b>	75.6	60.5	44.2	18.6	12.3
<b>Keeping in touch with family</b>	87.2	48.7	45.5	17.9	11.5
<b>Coordinating family schedules</b>	44.2	41	11.5	3.2	8.3
<b>Organizing social activities</b>	49.4	35.3	16	3.2	5.8

**Table 2: Frequency of social activities**

	<b>Days per month</b>	<b>S.D.</b>
<b>Talk with neighbors</b>	6.65	8.83
<b>Hang out with friends at a regular location</b>	5.02	7.58
<b>Outdoor recreation with friends</b>	3.85	6.3
<b>Drop by others' homes unannounced</b>	2.22	3.31
<b>Attend regularly scheduled meetings</b>	1.7	2.32
<b>Chat in online chat rooms</b>	0.96	3.65

**Table 3: Geographic distribution of socially-close ties**

	<b>Local</b>	<b>Distant</b>	<b>Total</b>
<b>Mean number of alters (S.D.)</b>	24.5 (26.88)	8.94 (12.55)	29.0 (27.12)
<b>Median number of alters</b>	15.0	4.0	21.0
<b>Mean percent of total (S.D.)</b>	67.27 (31.06)	32.95 (31.49)	
<b>Median percent of total</b>	75.0	24.88	

**Table 4: Number of socially-close ties by internet use/non-use**

	<b>Median number of ties</b>	<b>Mean number of ties (S.D.)</b>	<b>Median number of local ties</b>	<b>Mean number of local ties (S.D.)</b>	<b>Median number of distant ties</b>	<b>Mean number of distant ties (S.D.)</b>
<b>Internet users</b>	21.0	28.66 (24.72)	14.5	22.54 (24.3)	4.0	9.34 (13.11)
<b>Internet non-users</b>	17.0	28.19 <sup>a</sup> (32.77)	17.0	31.27 <sup>a</sup> (32.9)	4.0	8.14 <sup>a</sup> (10.93)

<sup>a</sup> Mean differences are not significant in a two-tailed *t*-test.