The Persistence and Transformation of Community: From Neighbourhood Groups to Social Networks

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Barry Wellman

Wellman Associates

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EXECUTIVE SUMMARY

"Community" is a multi-meaning word that in Western societies has traditionally been anchored in neighbourhood interactions and enshrined as a code work for cohesion. There have been fears in every generation that community has been "lost" and hopes that it has been "saved". People look back nostalgically to bygone days when community was supposedly more robust. Have communities withered, persisted or been transformed in the transition from the premodern to the modern and postmodern worlds.? Researchers have found thriving communities wherever they have looked, although not always in neighbourhoods. People wonder about the absence of what used to be, while new forms of community have slipped under their radar scopes. A central argument of this report is that community has become embedded in social networks rather than groups. As part of this transformation, there has been a movement of community relationships from easily observed public spaces to less-accessible private homes.

As a result of the continuing scholarly, policy, and public fixation on communities as neighbourhood solidarities, community studies have usually been neighbourhood studies, and healthy communities have come to be viewed as densely-knit, tightly-bounded groups. From the early 1960s, the balance of analysis swung away from bewailing the Industrial Revolution's purported loss of community to using ethnographic and survey techniques to discover that neighbourhood communities often continued to function.

By the 1970s, some scholars had realized that while some neighbourhoods remained vibrant, the proliferation of widespread networks of cheap and efficient transportation and communications had allowed contact to be maintained with greater ease and over longer distances. This led to viewing community "liberated" from neighbourhood-centric thinking: functionally as networks of social relationships rather than spatially as localities. Contemporary communities rarely are found only in neighbourhoods, as long as one adopts a social definition of community and not a spatial one.

Since the 1970s, many studies have documented the existence, scope and importance of

personal community networks in a variety of social systems around the world. There has been a change from "door-to-door" to "place-to-place" community, with little interaction with the intervening territory between places. The increased velocity of transactions has fostered interactional density. The large-scale metropolis is accessible and links to diverse social networks can be maintained more readily. The increased speed of routine communication has been more dramatic than the increased speed of transportation. This increase in speed has made door-to-door communications residual, and made most communications place-to-place or person-to-person. Except in situations of ethnic or racial segregation, contemporary Western communities are usually loosely-bounded, sparsely-knit, ramifying networks of specialized ties. Rather than being full members of one solidary neighbourhood or kinship group, community has become "glocalized". Contemporary urbanites juggle limited memberships in multiple, specialized, far-flung, interest-based network communities as they deal with shifting, amorphous networks of kin, neighbours, friends, workmates, and organizational ties. Only a minority of network members are directly connected with each another. Most friends and relatives live in different neighbourhoods; many live in different metropolitan areas. At work, people often work *with* distant others and not those sitting near them. People usually obtain support, sociability, information and a sense of belonging from those who do not live within the same neighbourhood.

It is often useful to treat "community" as a "personal community". Rather than fitting into the same group as those around them, each person has her own personal network. Household members keep separate schedules, with family get-togethers on the decline. Their activities and relationships are informal rather than organizationally structured. Many community networks contain about half kin and half friends, neighbours and workmates. In such networks people cannot depend on the goodwill or social control of a cohesive community. Instead, they often must actively search, maintain and mobilize their ramifying ties, one-by-one, to deal with their affairs. The sparse and unbounded nature of multiple community networks afford people more discretion in the milieus in which people can participate and with which they can identify.

Although the public community of earlier eras was largely a man's game, community has become more asynchronous, domesticated and feminized. Men now spend more time at home instead of at bars or cafes, while the high percentage of women engaged in paid work outside their homes means that women spend less time at home. Communities have moved inside, into private homes. People chat less with their neighbours, and are less able to provide mutual aid, or exercise social control over them. Women have become the pre-eminent suppliers of emotional support in community networks as well as the major suppliers of domestic services to households.

The proliferation of computer-supported social networks is facilitating the development of *"networked individualism"* as the basis for community: individualized person-to-person interactions and specialized interactions. It is the individual, and neither the household nor the group, that is the primary unit of connectivity. The Internet is not destroying community but is responding to, resonating with, and extending the types of community that have already become prevalent in the developed Western world: for local and distant ties, strong and weak ties, kin and friends.

Where high speed place-to-place communication supports the dispersal and fragmentation of organizations and community, high speed person-to-person communication supports the dispersal and role-fragmentation of workgroups and households. Each person is a switchboard, between ties and networks. People remain connected, but as individuals rather than being rooted in the home bases of work unit and household. Individuals switch rapidly between their social networks. Each person separately operates his networks to obtain information, collaboration, orders, support, sociability, and a sense of belonging.

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PART ONE: CONCEPTUALISING COMMUNITY

I.   DEFINING COMMUNITY

"Community" is a multi-meaning word, that in Western societies has traditionally been anchored in neighbourhood interactions. "Community" has been enshrined as a code work for cohesion, even though in cohesion within one community may lead to discord with others (Suttles 1968, 1972). Yet even in the Western world, scholars, pundits, politicians and the public define and use the term "community" in many ways, some of which are ambiguous or mutually contradictory. As far back as 1955, George Hillery noted ninety-four scholarly efforts to define community. Hillery noted that "the 94 definitions used in this analysis are not all of the definitions of the community" (1955, p. 112; see also Hillery 1963, 1872, 1984).

In the decades since Hillery's review, the multiple usages of community he identified all remain in use, while other usages based on social network analysis and computer-mediated communication have developed. Although Hillery's discussion is the most detailed, other definitional reviews include those by McClenahan (1929, pp. 104-106), Hollingshead (1948), Wellman and Leighton (1979), O'Brien and Roach (1984), Perry (1986), Heller (1989), Goldenberg and Haines (1992), Butcher (1993), Shodhan (1995) and Brint (2001). Taken together, the consensus is that community has come to be defined in terms of:

1. Common locality, either in-person or online

2. Interpersonal relationships of sociability, support and information, either in-person or online.

3. Common values, norms and interests, without necessarily interacting or being co-located.

II.   NOSTALGIA FOR THE SUPPOSED LOSS OF COMMUNITY

Community analysis' vision of a different past involves the "Community Question," the longstanding debate about whether communities have withered, persisted or been transformed in the transition from the premodern to the modern and postmodern worlds (Wellman 1979, 1988, 1999a, 1999b). Remember the British musical lament, "Fings ain't wot they used to be" (Bart 1960)? They probably never were. Contemporary urbanites perversely flatter themselves by remarking how well they are coping with stressful modern times in contrast to the easy life their ancestors led. They look back to bygone, supposedly golden days when they are sure that their ancestors — thirty, one hundred, three hundred years ago — led charmed lives, basking in the warmth of true solidary community. Perhaps most people have always thought that communities had fallen apart around them, with loneliness and alienation leading to a war of all against all.

Yet researchers have found thriving communities wherever they have looked, although not always in neighbourhoods. In addition to misplaced nostalgia for the past and exaggerated fears of the present, there is cognitive inertia. People wonder about the absence of what used to be, while new forms of community have slipped under their radar scopes. For example, a central argument of this report is that community has become embedded in social networks rather than groups. As part of this transformation, there has been a movement of community relationships from easily observed public spaces to less-accessible private homes. i.e., privatized community. If people are tucked away in their homes rather than conversing in cafes, then they are also going online: chatting online one-to-one; exchanging email in duets or small groups; or schmoozing, ranting, and organizing in discussion groups such as "list serves" or "newsgroups".

There is a need to understand what kinds of community flourish, what communities do — and do not do — for people, and how communities operate in different social systems. For example, the rapidly

expanding Internet has been a big hope for community creation, with more than half of Americans (56 percent) having Internet access by the end of 2000 (Kew, Wellman and Chen 2002). As the Internet has infiltrated contemporary life, analysts have had to move from seeing it as an external world to seeing how it becomes integrated into the complexity of everyday life. They wonder if the Internet increases, decreases, or transforms community. Although the debate surrounding the influence of the Internet on community has been ongoing, no clear pattern has yet emerged.

III. LOOKING FOR COMMUNITY IN NEIGHBOURHOODS

Taking their lead from Tönnies (1887) critique of industrialization, many definitions of community explicitly or implicitly treat it as occurring within rather small territorial limits, such as would be found in a rural village or a distinct neighbourhood. As "community" usually is partially defined by social interactions among a set of person who know each other, the composite definition of a "neighbourhood community" is of a bounded geographical area in which many of the residents know each other. This approach has been the traditional one in the past, arising out of the pastoralist assumption of happy rural villagers as being the paragon of community life, with urban communities struggling vainly to approach this pastoral ideal.

Since the 1960s social scientists have vigorously contested the onetime orthodoxy about the nature of community and family life. By contrast to previous armchair assertions of the loss of community, their *modus operandi* was empirical research to document the existence of community. Searching for connectivity rather than isolation, they laid the groundwork for a social network approach to the study of community. The debate about the nature of community, the "Community Question" (as Wellman 1979 termed it), evolved as community scholars changed their ideas about what constituted community and where to find it. Given its importance to human kind and accessibility to public discourse, it is a

safe guess that the Community Question in some form will remain open to the end of time. Yet important transformations have taken place in scholarly approaches to the question.

1. The new zeitgeist of community optimism born with the student and civil rights movements (Fellman 1973; Gitlin 1987);

2. A turning away from armchair speculation to ethnographic and survey techniques that demonstrated the persistence of communities whenever social scientists bothered to actually look for them (Wellman and Leighton 1979; Wellman 1988);

3. The discovery by social scientists such as Charles Tilly (1979) that violent political conflicts arose more out of the clash of connected communities of shared interests than out of the *cri de coeur* of the disconnected and alienated (Feagin 1973; Feagin and Hahn 1973).

4. A new view of the European past that emphasized the strength of community in the transition from the pre-modern to the modern world (Wrightson and Levine 1979; Kertzer and Hogan 1989; Sabean 1990).

5. A new emphasis on the importance of family, kinship and community relationships in history (Hareven 1977, 2000; Laslett 1965, 1988).

6. An interest in communities defined by shared subcultures, rather than shared locality (Fischer 1975).

Until the 1970s the debate was about whether such communities had been "lost" or "saved" (to use Wellman's 1979 language) since the Industrial Revolution (e.g., Nisbet 1962; Etzioni 1995; Bellah, et al. 1996; Wuthnow 1998; Putnam 2000). From the early 1960s, the balance of the debate swung away from bewailing the loss of community to discovering that neighbourhoods have continued to function. Community scholars increasingly used ethnographic and survey techniques to show that community had survived the major transformations of the Industrial Revolution. Both fieldwork and survey research showed that neighbourhood and kinship relations continue to be abundant and strong. Large institutions have neither smashed nor withered communal relations. To the contrary: the larger and

more inflexible the institutions, the more people seem to depend on their informal ties to deal with them.

A variety of mutually-supportive research blossomed. The developing body of research has shown that while communities may have changed in response to the pressures, opportunities and constraints of large-scale forces, they have not withered away. They buffer households against large-scale forces, provide mutual aid, and serve as secure bases to engage with the outside world (see reviews in Choldin 1985; Fischer 1976; Gordon 1978; Keller 1968; Smith 1979; Warren 1978).

In all cases, neighbourhood ties remain important, but usually only as a minority of relationships in personal networks. For example, although ties with neighbours and workmates comprise only a minority of Torontonians' active and intimate ties, the easy accessibility of such local relationships means that they comprise nearly half of all encounters with community members: face-to-face, by telephone, and by the Internet (Wellman 1996). In the inner streets of Chicago (Sampson, Morenoff and Earls 1999) and the orderly tracts of the Netherlands (Zamir, Volker and Flap 2001), companionship, support and social control by neighbours remains important.

Neighbourly relations are especially important when poverty or disability leads people to invest heavily in local relationships. Poor men, living mostly public lives on the streets of Washington DC depend so much on either for help that their social lives are built on intense relationships that frequently burn out through overloading (Liebow 1967). In Santiago, Chile informal community ties are the keys to daily survival in the impoverished *barrios* (Espinoza 1999). They provide food, shelter, short-term loans, job leads, and help in dealing with organizations. In this situation, neighbours (who are often kin) provide most everyday support (see also Roberts 1973, 1978, 1991) Yet such neighbours are poor themselves. To get sizable amounts of money or access to good jobs, the residents must rely on their weaker ties to wealthier, better-situated relatives who live outside the barrios.

This transformation in thinking became the academic orthodoxy of the late 1960s and the 1970s. Scholars, planners and some politicians and members of the public no longer thought of cities as evil, permeated with Original Sin. Their Jacobsean cum Rousseauesque celebrations of community had the

lingering aroma of the 1960s, seeing urbanites as permeated with Original Good and happily maintaining mutually supportive ties.

 One way of engaging in such community is for people to interact in semi-public spaces, in places like pubs or cafés (Scorsese 1973; Oldenberg 1989). Such a view of community as a public activity appears in many books and articles, including two well-known studies of community, *Street Corner Society* (Whyte 1943) and *The Urban Villagers* (Gans 1962). Each of these books describes life in predominantly Italian neighbourhoods of Boston in which there is much interaction on the streets.

Some treatments of neighbourhood communities are based on interactions in people's homes, a situation more feasible in contemporary North America because the increased size of homes facilitates entertaining community members (Warren 1978; Michelson 1976). Thus in suburban Levittown, NJ (Gans 1967) and exurban southern Ontario (Clark 1966), analysts documented little community interaction in public spaces but a fair amount of in-home visiting among neighbours. "Indicators of an increase in private activity at the expense of public activity, especially in the United States, abound" (Lofland 1989, p. 92). At the same time, women's community which often had been private in the past has become more public.

The recent case of "Netville" is especially interesting, because here neighbourhood access to a high-speed Internet service helped bring neighbourhood members together for face-to-face get-togethers, from visits in private homes to semi-public barbeques (Hampton 2001; Hampton and Wellman 2002a). Those who were not part of the high-speed service accumulated only one-third as many neighbours. In this case, the Internet was especially good at fostering weak ties of acquaintanceship; stronger friendship ties relied more on initial face-to-face encounters.

As a result of the continuing scholarly, policy, and public fixation on communities as neighbourhood solidarities, community studies have usually been neighbourhood studies. It is principally the emphasis on common locality, and to a lesser extent the emphasis on solidarity, that has encouraged the identification of "community" with "neighbourhood". Healthy communities have come to be viewed as

densely-knit, tightly-bounded groups (Hillery 1955, 1984). There is empirical as well as ideological warrant for this. Researchers have found that despite the traumatic changes of modernization, locality still matters. People still neighbour, visit their relatives help each other, and object to loud parties next door. Physical proximity continues to affect the frequency with which people see one another and provide material aid (Wellman 1996; Wellman and Potter 1999; Wellman and Frank 2001). Neighbourhoods remain as refuges from outside pressures, sources of interpersonal aid in dealing with large bureaucracies, and useful means of keeping streets safe (Wellman, 1988; Lofland 1989; Sampson, Morenoff and Earls 1999).

These continuing experiences provide several reasons why the concept of "neighbourhood" at one time was almost synonymous with the concept of "community" and continues to resonate strongly with it today:

1. Some researchers continued the habit of looking for community ties only in local areas, reflecting community scholarship's origins in studying neighbourhoods (Stein 1960).

2. A general preoccupation with identifying the conditions under which communal sentiments can be maintained. In so doing, analysts reflect a continuing worry about whether normative integration and consensus persist. The most recent manifestation of this concern has been Robert Putnam's raising the alarm that Americans are now "bowling alone" (1995, 2000); they are much less involved in voluntary organized groups, be they bowling leagues, churches, the Lions Club or unions (see also Wuthnow 1998). In his Tocqueville-like analysis (e.g., 1835), Putnam argues that this lessened organizational participation means less civic involvement in promoting good government and less "social trust" in governments and fellow citizens (see also Clemens 2001; Uslaner 2000a; Rotberg 2001; Bennett 1998; Galston 1999).

3. Many urban scholars have seen the neighbourhood as the microcosm of the city, and the city as an aggregate of neighbourhoods.

4. Administrative officials have imposed their own definitions of neighbourhood boundaries upon urban maps in attempts to create bureaucratic units (Taub, et al. 1977; Michelson 1997).

5. The particular concerns of municipal policymakers (and urban geographers, anthropologists and sociologists) with spatial distributions of social phenomena (e.g., Schwirian and Mesch 1993) has tended to be translated into local area concerns.

6. Many policymakers have been preoccupied with the conditions under which social cohesion can be maintained in cities and societies. The neighbourhood has been widely seen and studied as an apparently obvious container of communal solidarity (Stein 1960).

7. People are not randomly spread throughout the city, but clump according to some social characteristics, such as socioeconomic status, ethnicity, language use, and stage in the life course. This means that some social problems, such as juvenile delinquency and illness, vary greatly by local area, thereby raising the salience of locality to public officials, the media, and the people who do or do not live there.

The concentration on the neighbourhood has had a strong impact on definitions of, research into, and theorizing about, community. Neighbourhood studies have produced finely wrought depictions of urban life and provided powerful ideas about how interpersonal relations operate in a variety of social contexts. Analyses have taken mappings of local area boundaries as their starting points and then looked into the extent of communal interaction and sentiment within these boundaries. They have thus assumed, *a priori,* that a significant portion of a person's interpersonal ties are organized by locality. Such a territorial perspective, searching for community n only within bounded population aggregates, has been especially sensitive to the evaluation of community solidarity in terms of shared values and social integration. Consequently, when observers cannot find much solidary local behaviour and sentiments, they have concluded that "community" has disappeared.

The concept of "neighbourhood" is not synonymous with the concept of "community". The contemporary milieu of frequent residential mobility, spatially-dispersed relationships and activities, instan-

taneous distance-free communication, and the movement of interactions from public spaces to private homes have all limited the amount of observable interactions in neighbourhoods. This does not mean that community has been lost but that it is much less likely now to be locally based and locally observed.

A. *Little public interaction on street corners, pubs, etc. in most North American areas.*

1. Some suburban and rural areas are too thinly settled to have large numbers of potential friends readily accessible through a short walk.

2. Inhospitable weather -- frigid northern winters, torrid southern summers -- discourage lingering outdoors. Although this situation has always been true, the contemporary prevalence of central heating and air-conditioning – coupled with television – lures people to stay in their homes, their cars, and in shopping malls – but not on their front porches.

3. Fast food restaurants and privately-controlled shopping malls discourage communal lingering.

4. Safety concerns have engendered fears of strangers to be encountered in public places (Newman 1972) and encouraged walled, guarded and gated enclaves with admittance only to residents, their guests and agents (Judd 1995; Marcuse 1997; Snyder and Blakeley 1997).

5. In the absence of pervasive wireless support, the Internet keeps people indoors, rooted to their seats while they surf globally.

B. *Publicly defined neighbourhoods are often more a product of outsiders' perception than a reality for the residents of the area.* There is often little fit between outside observers' perception of the existence of a community, residents' perception of a community, and the actual existence of a community, as measured by interaction patterns or ethnic/socioeconomic/ lifestyle homogeneity) (Stutz 1974; Hunter 1979; Krupat and Guild 1980). Outsiders attribute labels that are often based on an active visible minority or on stereotypic remembrance of former inhabitants.

C. *Most local interaction occurs close to home and not throughout the neighbourhood*. I roughly define the neighbourhood as interpersonal, non-commercial relationships within a ten-minute

walk for eastern and central Canada and a ten-minute drive for prairie and western Canada. The great majority of interactions are with fellow residents of one's apartment floor corridor or face-block, the set of homes on both sides of a street between two intersecting streets (Michelson 1976; Lee and Campbell 1999; Wellman and Whitaker 1974; Gillis 1974; Festinger and Back 1963; Gates, Stevens and Wellman 1973). Thus the concept of "neighbourhood community" overstates the spatial range of the actual local community of interaction which may be very local and very small in

D. Most active interpersonal relationships of North Americans are not with neighbours. For example, in southern Ontario, only 22 percent of East Yorkers' dozen most active relationships are with neighbours, while 21 percent are more than 100 miles away (Wellman, Carrington and Hall 1988). Moreover, neighbours tend to be relatively weak ties, especially as compared to immediate kin and friends (Wellman and Wortley 1989, 1990; Fischer 1982).

E. Contemporary transportation and communication facilities, notably the car, plane, phone, fax and internet, have enabled the easy maintenance of non-local relationships with friends, relatives and workmates. (Fischer 1982; Wellman and Wortley 1990; Wellman 1992b, 1999b; Wellman and Tindall 1993).

F. The growth in size of cities in the twentieth-century, coupled with extensive separation (through zoning) of workplaces and residential areas, means that the community of co-workers no longer lives in the same neighbourhood. Few friendly relations at work become active ties afterwards (Wellman 1985; Wellman, Carrington and Hall 1988).

G. Demographic divisions within neighbourhoods often mean that many neighbours do not interact. Relations often do not cross ethnic or life-cycle divisions (Breton 1964; Gans 1962; Suttles 1968, 1972). For example, Lee and Campbell (1999) found that African-Americans and White-Americans in Nashville who live in the same neighbourhood rarely interact across racial lines (see also Bleiker 1972; Guldin 1980; Schoenberg 1980; Brettell 1981).

H. High rates of residential mobility mean that many people do not develop neighbourhood roots. When people move (or contemplate moving), their allegiances to neighbours decrease, and their ties are to friends, relatives and workmates who live elsewhere. Frequent moves to new homes give people less time to meet new neighbours and less interest in investing in nurturing neighbourly relations (Michelson 1977; Tobery, Wetherell and Brigham 1990; Fischer 1991; Sampson 1991; Czerny 1994).

PART TWO: COMMUNITY LEAVES THE NEIGHBOURHOOD

I. FROM SPATIAL TO SOCIAL BOUNDARIES

By the 1970s, some scholars had realized that while some neighbourhoods remained vibrant, the proliferation of widespread networks of cheap and efficient transportation and communications had allowed contact to be maintained with greater ease and over longer distances: in transportation, from railroads through superhighways and planes; in communication, from overnight mail service to direct long-distance telephone dialing and the Internet (Meier 1962; Wellman 2001). This led to viewing community functionally as networks of social relationships rather than spatially as localities (e.g., Tilly 1974; Craven and Wellman 1973; Wellman and Leighton 1979). Community became "liberated" (Wellman 1979) from neighbourhood-centric thinking.

Once communities were defined socially rather than spatially, than it has become apparent that they persisted, even flourished, but have been transformed. Rather than being full members of one solidary local or kinship group, contemporary urbanites now juggle limited memberships in multiple, specialized, far-flung, interest-based network communities. The change from local to dispersed communities is old news by now – apparent to all but politicians and community scholars habituated to thinking of neighbourhoods as the only possible sources of community. Contemporary communities rarely are found only in neighbourhoods, as long as one adopts a social definition of community and not a spatial one (Wellman and Leighton 1979; Wellman 1999). This is because people usually obtain support, sociability, information and a sense of belonging from those who do not live within the same neighbourhood and often, not within their own metropolitan area. People maintain these community ties through phoning, writing, driving, railroading, transiting, and flying. Neighbourhoods serve principally as bases from which people make connections with more community members.

Few North Americans have their principal interpersonal connections with their neighbourhoods. Nor is this only a North American phenomena. For instance, Nozawa (1997) and Otani (1999) show that this non-localism is also prevalent in Japan, despite its many local institutions to promote community and local social control. In Iran, Bastani (2001a) shows that middle-class Tehranis are members of community networks that contain a mixture of local and nonlocal ties.

Community interactions have moved inside the private home — where most entertaining, phone-calling and emailing take place—and away from chatting with patrons in public spaces such as bars, street corners and coffee shops. Even when people do go out with others — to restaurants or movie theatres—they usually leave their neighbourhoods (Lofland 1998). For example, the percentage of Americans regularly socializing with neighbours has been steadily declining for at least 25 years. In 1999, only 20 percent spent a social evening with neighbours several times per week as compared to 30 percent in 1974. Similarly regularly socializing in pubs has declined from 11 percent to 8 percent (Smith 1999).

The increased velocity of transactions has fostered interactional density. The large-scale metropolis is accessible and links to diverse social networks can be maintained more readily. Until the nearly simultaneous proliferation of railroads and telegraphs in the mid-nineteenth century, communication speeds were about the same as door-to-door transportation speeds. The telegraph greatly increased the speed of communication. Since then, the effective speed of transportation has increased two times from the 30 mph of early railroad speed to 60 mph for automobiles, five times to 150 mph for high-speed trains, and sixty times to 600 mph for airliners.

Although the telegraph was generally only used for short, high-priority messages, it was the harbinger of communication becoming divorced from transportation. The increased speed of routine communication has been more dramatic than the increased speed of transportation. Communication has broken loose from the need to be carried somewhere by someone. As long-distance telephone systems proliferated and became routinely affordable, the 30 mph speed of mail carried on early trains

has increased by more than 50,000 times. This increase in speed has made door-to-door communications residual, and made most communications place-to-place or person-to-person. The length of the message has become a more salient limiting factor than the distance that the message has to travel.

II.   COMMUNITY AS SOCIAL NETWORK

The accumulation of research and the transformation of connectivity together suggest that it is time to stop trying to view present community networks through the lens of past neighbourhood groups. Community ties continue to be pervasive, but they now link people across both social and spatial expanses (Laumann 1973; Craven and Wellman 1973; Granovetter 1982; Ferrand, Mounier and Degenne 1999).

By avoiding the assumption that people necessarily interact in neighbourhoods, kinship groups or other bounded solidarities, social network analysts have studied a wide range of relationships, wherever located and however structured. Thus Fischer in northern California (1982), Otani (1999) and Nozawa (1997) in Japan, Wellman's research group in Toronto (Wellman 1979; Wellman, Carrington and Hall 1988), Salaff, Fong and Wong in Hong Kong (1999), and Bastani (2001a) find that residential proximity is at most, only one dimension of community. Yet, as Lee and Campbell's analysis of Nashville (1999), Espinoza's study of Santiago, Chile (1999), and Hampton and Wellman's analysis of a heavily "wired" Toronto exurb (Hampton 2001; Hampton and Wellman 2002b) also show, the network approach also supports the analysis of those community ties that do remain in neighbourhoods. Thus the social network approach is not anti-neighbourhood — the traditional stuff of community studies — but allows neighbourhood ties to be discovered without an *a priori* assumption of their importance.

By using the social network approach, analysts discovered that community had not disappeared. Instead, community had moved out of its traditional neighbourhood base as the constraints of space weakened. Except in situations of ethnic or racial segregation (e.g., Lee and Campbell 1999; Boal 1972), contemporary Western communities are rarely tightly-bounded, densely-knit groups of broadly-

based ties. They are usually loosely-bounded, sparsely-knit, ramifying networks of specialized ties. Therefore, analysts should be able to find community wherever it exists: in neighbourhoods, in family solidarities, or in networks that reach farther out and include many friends and acquaintances (Oliver 1988; Wellman 1979; Wellman and Leighton 1979; Fischer 1982).

III. PERSONAL COMMUNITIES

A. The Personal Community Network Approach

This section describes the nature of contemporary communities, analyzing them as linked to persons and households rather than, as has traditionally been the case, based in neighbourhoods. One useful approach has been to treat "community" as "personal community": a social network of significant, informal "community ties" defined from each person's standpoint. Membership in such a network is defined by *ties* to each focal person, be they relations of kinship, social closeness, or frequent contact. Personal community network studies provide Ptolemaic views of networks as they may. The focus of personal community network studies on the inherently social nature of community allows scholars to avoid the trap of looking for community only in spatially-defined areas. Moreover, conceptualizing a person's community life as the central node linking together complex interpersonal relationships leads to quite different analytic concerns from conceptualizing it as a membership in a discrete solidarity.

The network approach is well-suited to the study of contemporary life, in which the individual rather than the household or neighbourhood is paramount. Rather than fitting into the same group as those around them, each person has her own personal network. Household members keep separate schedules, with family get-togethers – even common meals – on the decline. Instead of belonging to two stable kinship groups, people often have complex household relations, with stepchildren, ex-marital partners (and their progeny), and multiple sets of in-laws. Communities are far-flung, loosely-bounded, sparsely-knit and fragmentary. Most people operate in multiple, partial communities as they deal with shifting, amorphous networks of kin, neighbours, friends, workmates, and organizational ties. Their ac-

tivities and relationships are informal rather than organizationally structured. If they go bowling, they rarely join formal leagues (Putnam 2000). Only a minority of network members are directly connected with each another. Most friends and relatives live in different neighbourhoods; many live in different metropolitan areas. At work, people often work *with* distant others and not those sitting near them (Wellman, Carrington and Hall 1988).

As average North Americans have informal ties with several hundred to several thousand other people (Kochen 1989; Bernard, et al. 2001), almost all personal community analyses impose stringent selection criteria on the ties that they take into account. Most studies examine between six and twenty of the most *active ties*, and the *links* that these *network members* have with each other (Wellman 1990, 1992a; Walker, Wasserman and Wellman 1993). Investigators usually use surveys to gather information about the networks' *structure* (e.g., links between network members), *composition* (e.g., the percentage who are kin), and *contents* (e.g., social support). (See Henry 1958; Webber 1964; Kadushin 1966; Tilly 1974; Craven and Wellman 1973; Shulman 1976; Fischer 1975, 1982; Fischer et al. 1977; Wellman and Leighton 1979; Greisman 1980; Hunter and Riger 1986; Wellman, Carrington and Hall 1988; Leighton 1986; Wellman 1988, 1999a, 1999b, 2001; Sampson 1991; Wellman and Frank 2001.)

Personal community network studies have meshed well with mainstream survey research techniques. Researchers have typically interviewed an (often large) sample of focal persons, asking about the composition, relational patters, and contents of "their" networks. Analysts typically select a random sample from a neighbourhood or metropolitan area and trace the residents' network relationships to wherever they may be found. To measure network density, they typically ask the focal persons in their samples to report about relationships among the members of their networks. Such studies, began in Detroit (Laumann 1969a, 1969b, 1973) and Toronto (Coates 1996; Coates, Moyer and Wellman 1969; Craven and Wellman 1973; Wellman 1968) in the 1960s and have flourished ever since. Many psychologists, sociologists and social workers have concentrated on studying the social support that community networks provide: the supportive resources that community ties convey and their conse-

quences for mental and physical well-being and longevity (see the reviews in Fischer 1984; Wellman 1990, 1992b, 1993). For example, researchers have found that people with larger, more diversified personal communities were less susceptible to common colds and produced less mucus (Cohen et al., 1997).

The demonstration of the pervasiveness and importance of personal community networks has rebutted fears that large-scale social transformations have produced widespread social isolation in an alienated "mass society" (e.g., Kornhauser 1959). If analysts focus more on social ties and systems of informal resource exchange than on people living in neighbourhoods and villages, community can be seen. Community has rarely disappeared from societies. It has been transformed. New forms of network community have supplanted old neighbourhood community forms. Since the 1970s, many studies have documented the existence, scope and importance of personal community networks in a variety of social systems around the world. Wherever studied, personal communities usually share the characteristics detailed in the rest of this section, although North American personal communities exhibit these characteristics more strongly (Wellman 1999a).

B.   Personal Communities are Multiple, Partial, Heterogeneous and Sparsely-Knit Social Networks

Personal communities contain about a half-dozen intimate ties and perhaps a dozen active, if not quite intimate, ties out of the total of about 1,000 to 1,500 informal interpersonal relationships that many people maintain (Boissevain 1974; Pool and Kochen 1978; Kochen 1989). Many community networks contain about half kin and half friends, neighbours and workmates. Few people maintain active community ties with all or most of their kinfolk. They usually contain only one or two intimate neighbouring or workmate relationships, but 6 to 10 weaker community ties with neighbours and workmates. In Toronto in 1978, the average active community network tie stretched a mean of nine miles between

residences (Wellman, Carrington and Hall 1988). People know only six or seven neighbours well enough to speak with. (Gates, Stevens and Wellman 1973).

Most personal communities are essentially sparsely knit and loosely bounded. For example, the density of 0.33 in the average Torontonian's personal communities means that only one-third of a person's active community members have active ties with each other (Wellman 1979, Wellman and Wortley 1990). Moreover, these networks become even more sparsely-knit as people age and their networks get more complex: Mean network density declined from 0.33 to 0.13 over a decade (Wellman, et al. 1997). It is difficult to mobilize collective support or social control in such sparsely-knit networks. People must actively maintain their sparsely-knit ties and fragmented networks. By contrast, in groups it is easier for people to sit back and let group dynamics and densely-knit structures do the work. That is why friendship networks are less apt than kinship networks to persist in times of overload (Hurlbert, Haines and Beggs 2000).

Active community networks typically comprise one core cluster of densely-knit relations, one or two small social circles, and one or two isolates who know no one in the network other than the individual who is the centre of her personal community. Both dense, bounded groups and sparse, unbounded networks exist simultaneously in communities. Indeed, the same persons may be involved in both, as they iterate between communities, or as the communities themselves change in response to external situations and internal dynamics. Because community ties are rarely tightly bounded within a single network, they act as "local bridges" which indirectly connect members of one community with another (Granovetter 1973, 1982). People have an increased ability to connect with a large number of social milieus, and a concomitantly decreased involvement with any one milieu. Cross-cutting ties link and integrate social milieus, instead of "little box" groups being isolated and tightly-bounded.

The complex and specialized nature of personal communities means that these are fragmented networks. Sparsely-knit, fragmentary, loosely-bounded communities make it possible to reach many people through short chains of "friends of friends" (Boissevain 1974). Yet in such networks people

cannot depend on the goodwill or social control of a cohesive community. Instead, they often must actively search, maintain and mobilize their ramifying ties, one-by-one, to deal with their affairs rather than relying on solidary communities to do their maintenance work. Indeed, a variety of research into *guanxi* networking shows this to be true even in once-reputedly solidary China (Gold, Guthrie and Wank 2001; Freeman and Ruan 1997; Lin 1997; Ruan, et al., 1997). In both Japan (Otani 1999) and North America (Wellman and Frank 2001; Wellman and Gulia 1999b; Wellman 1979; Wellman and Wortley 1989, 1990; Fischer 1982), the kinship system as such does not supply much social support: Extended kin are rarely supportive, although a few immediate kin — parents, children and siblings — are quite supportive.

These multiple communities increase choices in the milieus in which people can participate and with which they can identify. Communities of shared interest thrive, including "communities of practice" of people working at similar jobs who share concerns and triumphs (Wenger 1998). Just because community networks are sparsely-knit, that does not mean that they connect all persons (Lee and Campbell 1999; Laumann 1966; Wellman and Gulia 1999b). These clusters organize flows of resources and norms. Even when ties connect people with different social characteristics, they do so unevenly. In addition, high rates of social and residential mobility leave in their wake cross-cutting ties between people with different social characteristics (Ferrand, Mounier and Degenne 1999; Herting, Grusky and Van Rompaey 1997).

This complexity fosters increased emphasis on structural position in different networks – such as brokerage ties that connect multiple networks. A person may be central in one community, peripheral in the second, and a key broker for the third. Concomitantly, there is decreased emphasis on group membership. Active networking is more important than going along with the group. At the same time, there is probably decreased identification with community. Because people belong to multiple, non-exclusive communities, they do not belong to one visible, palpable community. This can reduce their

identification with a community. Belonging to multiple communities increases maneuverability and opportunity, but makes interactions more contingent and uncertain.

C.   Many Specialized Communities are Based on Shared Interests

Many interpersonal ties are based only on the specialized roles that people play— and not on the whole persons. These relationships are between fragments of selves, rather than between whole selves. Most ties are specialized, with different community members supplying emotional support, information, material aid, social identity and a sense of belonging (Wellman and Wortley 1990; see also Fischer 1982; Castells 1997).

Instead of total involvement in a single solidary community, the personal mobility and connectivity that are the hallmarks of the industrial and information ages have replaced solidarity with partial specialized communities. People are members of multiple communities, each containing at most partially-overlapping sets of network members. Interactions with network members are principally in duets, two couples, and informal get-togethers of friends and relatives. These are not simple, homogenous strictures but heterogeneous compositions and sparsely-knit structures. Such communities comprise people who share an interest, be it a consummatory avocation (a community of stamp collectors) or a problem-solving community interested in achieving or protecting a goal, such as a community of small business owners. Claude Fischer (1975) has argued that such subcultural communities are a key organizing principle of contemporary life. Specialized communities of interests consist of either like-minded people – such as BMW 325ix drivers – or people occupying complementary roles – such as sadists and masochists. Some are "communities of practice" (Dorsey 1994; Orr 1996; Wenger 1998; Cross and Borgatti 2000; Lipnack and Stamps 2000), people informally exchanging problem-solving information within companies or shared interest-areas. Scholarly communities exchange ideas and validate interests (Crane 1972; Walsh and Bayama 1996; Owen-Smith 2001). Although specialized

communities predate the Internet, they are flourishing as the Internet's capabilities develop and groups give way to personalized connectivity (Kim 2002).

D.   Personal Communities Provide a Variety of Socially Supportive Resources

When people need help, they can either buy it, trade for it, steal it, get it from governments and charities, or obtain it through their personal communities: supportive ties with friends, relatives, neighbours and workmates. Such ties supply *"network capital,"* the form of "social capital" that makes resources available through interpersonal ties. It is widely available, usually specialized, and unevenly distributed among people, ties and networks. Network members provide emotional aid, material aid, information, companionship, and a sense of belonging. Their *"social support"* is one of the main ways that households obtain resources to deal with daily life, seize opportunities, and reduce uncertainties (Wellman 1979; Willmott 1986, 1987, Pahl .

Both scholars and the public have traditionally thought of communities as composed of broadly-based relationships in which each community member felt securely able to obtain a variety of help. Although people gain a wide range of support from their community *networks*, most of their *ties* provide specialized ties, supplying only a few kinds of social support (see also the reviews in Wellman 1988, 1992b). For example, some relationships provide emotional support while others help with household needs. Multiple, sparsely-knit communities composed of specialized ties mean that people must work to maintain a differentiated portfolio of potentially supportive relationships. They can no longer assume that any or all of their relationships will help them, no matter what is the problem When they have problems, they must actively seek out resources. In market terms, people must shop at specialized boutiques for needed resources instead of casually dropping in at a general store. Like boutique shoppers, people who only have a few network members supplying one kind of support have insecure

sources of supply. If the relationship ends — if the boutique closes — the supply of that particular type of support may disappear. Nor is all help actively sought (Wellman 1982, 1992b; Pescosolido 1992).

The support provided by personal communities is efficient, low-cost, flexible, customized, and more controllable than aid from bureaucracies. At a larger scale, the transformation of national and global societies into "network societies" (Wellman 1988, 1996, 2001; Castells 1996, 2000) suggests the usefulness of thinking of social capital as a product of personal community networks as well as of formally institutionalized groups.

There is a range of evidence from different societies. In France, kin and neighbours engage in mutual aid, but friends and neighbours are the confidants (Ferrand, Mounier and Degenne 1999). In California, there are differences between trouble-shooting kin and companionable friends (Fischer 1982; Schweizer, Schnegg and Berzborn 1998). In Toronto, active community members usually supply only one or two out of the five types of social support, for example, small services and emotional aid but not large services, companionship or financial aid (Hall and Wellman 1985; Wellman and Wortley 1989, 1990). By contrast, Toronto spouses supply each other with all types of social support (Wellman and Wellman 1992). Those network members who provide small services or emotional aid rarely provide large services, companionship or financial aid (Wellman, Carrington and Hall 1988; Wellman and Wortley 1989, 1990). Parents and adult children provide the widest range of support although they rarely supply sociable companionship. Accessible ties — people living or working near-by, or otherwise in frequent in-person or telecommunications contact — provide important goods and services (Wellman and Wortley 1990). The strength of ties is important, with socially-close voluntary and multiple-role ties providing high levels of support. For example, coworkers who are friends exchange more email (Haythornthwaite and Wellman 1998). Yet socially heterogeneous weak ties have their importance: linking sparsely-knit communities, providing a wider range of information, and interconnecting groups in societies.

The contingent supportiveness of these fragmented communities has broader societal effects. The support they provide strengthens both community and societal bonds while supplying needed resources (Fischer 1982; Wellman 1999a; Schweizer, et al. 1998). For society, these communities develop network capital that conveys resources, confirms identity, influences behaviour, and reinforces integrative links between individuals, households and groups (Durkheim 1893; Espinoza 1999; Ferrand, Mounier and Degenne 1999; Castells 2000; Popielarz 1999).

E.   Communities Operate as Both Interpersonal Duets and Network Ensembles

The shift in perspective from a communal to a network view of community has probably lagged the shift in social structure. Although almost all people possess community ties of sociability and support, many of these ties are only weakly connected. They function as dyads and small clusters, and not as densely-knit groups. This suggests that tie characteristics may have more effect than network characteristics on the provision of social support and network capital. As the network is dominated by the tie, the individual persona becomes an even more active player of the network capital game, rather than sitting back passively and letting social support come from a group (Burt 1992; Wellman 1999a, 1999b).

Yet there is more to interpersonal life than just individuals and ties. People are often immersed in communities filled with companionship, emotional support or caring for others whose dynamics go beyond the level of the individual relationship. Hence the compositional and structural characteristics of *networks* must be taken into account (Hogan and Eggbeen 1995). Larger, more heterogeneous and denser community provide more support. A network is more than the sum of its ties. (Wellman and Gulia 1999b, Wellman and Frank 2001). The availability of network capital is affected by individual "agency" (self-organized actions on one's own behalf), ties dancing interpersonal duets, *and* the constraints and opportunities provided by networks with different sorts of structure and composition.

(There are also the effects of the environing society, but that is beyond this report's analytic scope.) Not only do people need – and want – to know which kinds of people (*individual-level*) and relationships (*tie-level*) are apt to provide different kinds of support, they also need and want to know the extent to which their social networks as a whole can support them (*network-level*).

The composition and structure of community networks (what sociologists call "emergent proper-ties") affect the provision of support beyond the effects of the characteristics of the ties in these net-works. Kin are called on more for support when they are enmeshed in densely-knit communities with high proportions of kin. Adult sons are more likely to aid their elderly parents when there are not any adult daughters available (Stone, Rosenthal and Connidis 1998; Wellman and Frank 2001). People navigate nimbly through partial involvements in multiple networks, as members of these networks they are subject to the networks' constraints and opportunities. The helpfulness of ties is enhanced by be-ing in a network rich in material resources. (Lai, Lin and Leung 1998) and in frequent contact with each other (Wellman and Frank 2001).

Cross-level effects show that the characteristics of both ties and networks affect the provision of social support. Take the case of reciprocity. Small acts provided by immediate alters are likely to be reciprocated quickly. In the event of failed reciprocity, the losses are minimal. However, larger forms of support may not be directly or immediately reciprocated. Thus they occur in a context where the com-mitment is to the network – or some component of it – and the likely eventual benefit is derived through the network rather than through specific reciprocal acts between ego and alter. For example,, immedi-ate family members provide multiple forms of support through a commitment to the family that is be-yond a commitment to ego.

Social support is rarely a zero-sum game. Companionship is usually a mutual benefit, while help-ing others increases one's own standing in the community. It gives the giver the satisfaction of seeing oneself as a worthwhile contributor, and raises the level of overall supportiveness (Schweizer and White 1998). For example, providing others with emotional support often increases happiness and de-

creases stress levels (Pennebaker 1990). Not only does "it takes a village to raise a child" (Clinton 1996), the support provided increases the village's overall level of social capital and civic trust. Hence the structure of the networks is important as a background factor: for its sparse interconnections, allowing people to participate in many worlds. In communities of shared interest, networks provide contexts for similar people to act similarly and to observe each other acting similarly. It is the composition of these networks which is important, often connecting similar people who have experienced similar life events and have similar interests (see also Suitor, Pillemer and Bohanon 1993).

F.   Communities are in Flux

It is not that people's communities are disintegrating, but that they are in flux. More research has gone into studies of community networks during one time period than into studying how they change into time. My research group was able to study change over a decade in Torontonians' strongest *("intimate")* ties with friends and relatives (Wellman, et al. 1997). Consistent with the shift in community from groups to networks in flux, the most striking thing about our findings is how much in flux are close community relationships. Only a minority of such "intimate" ties persisted through the decade, and most intimate networks – the core of communities – contain a majority of people who were not there ten years ago. Although it is possible that these newfound intimates had once been weaker ties, this is generally not the case. When network members stop being intimates, their ties become weak or non-existent.

Few people have stable community networks. For example, only 28 percent of Torontonians' intimate ties were still intimate a decade later. Thirty-six percent of the once-intimate ties became less active over the decade, while the rest became very weak or disappeared. Although kinship ties are more stable, only 34 percent of intimate kinship ties remained intimate a decade later while another 28 percent continued as active, but not intimate, relationships (Wellman, et al. 1997).

Changes in family situations accompanying normal aging, rather than aging itself, account for much of the turnover that these respondents have experienced. Marital change is the dominant proc-

ess, with those getting in or out of marriage changing the networks the most. Getting married or divorced compels people to have much emotional and social adaptation which results in great turnover of intimate ties.

Turnover in these personal communities is driven by two phenomena. Those Torontonians who did not undergo marital change turned over nearly two-thirds of their intimate ties over a decade, replacing over an average of four relationships in ten years. This suggests a gradual shift, with one intimate tie being replaced every two or three years. By contrast, those who experienced marital change almost completely replaced their intimate ties. This suggests a more cataclysmic upheaval in intimate relationships, associated with marriage. Just as in biological evolution, personal community networks may experience gradual mutation that is punctuated by intense rapid shifts (Gould 1992). Both sorts of change reflect combinations of adaptation to outside circumstances, random variation, evolutionary differentiation, and normal wear-and-tear.

G.   Communities Have Become "Glocalized"

The turn away from door-to-door contact and towards place-to-place contact has been a two-fold turn away from involvement in a single place and a single group. It is conceptually and practically important to avoid conflating these two turnings. The shift to place-to-place contact enables people to find community while not being bound up in either their physical neighbourhood (place) and their neighbourhood community (group). Yet place-to-place contact means that localities may be still important but these localities may be far from where people live. It is the intersection of what Manuel Castells (1996, 2000) has called the traditional "space of places" and the developing "space of flows".

The transition from group to networked connectivity has meant a shift from the settlement to the household and workgroup as the primary units of activity. If "community" is defined socially rather than spatially, then it is clear that contemporary communities rarely are limited to neighbourhoods. They are communities of shared interest rather than communities of shared kinship or locality.

People usually obtain support, companionship, information and a sense of belonging from those who do not live within the same neighbourhood or even within the same metropolitan area. People maintain these ties through phoning, emailing, writing, driving, railroading, transiting, and flying (Wellman 2000a; Haythornthwaite and Wellman 2001; Wellman and Haythornthwaite 2002). At the same time, people easily maintain dispersed relationships by telecommunications (with telephones recently being joined by faxes, electronic mail and the Web) and transportation (based on cars, expressways and airplanes). In Toronto, being within one hour's drive or within the local telephone zone—and not being in the same neighbourhood — is the effective boundary for high levels of face-to-face contact and social support (Wellman, Carrington and Hall 1988; Wellman and Tindall 1993).

Local ties often become distant ones due to the continuing high rate of residential mobility in the developed world and the rapid growth of long-distance mobility in the Third World (Cadwallader 1992). Many relationships stretch even further than the metropolitan area, with an appreciable number spanning the continent or the ocean. For example, migrants to a wired suburb near Toronto have been better able to maintain their ties than those who do not have Internet access (Hampton and Wellman 2001, 2002a).

The lack of total involvement in a locality and the presence of community members living elsewhere weakens local commitment. The local has not been lost, but has become just one or two home bases from which people venture out to network. Neighbourhoods and that other "local" home base, work units, have become relatively safe milieus from which people sally forth from their households and workplaces in their cars, telephone from their kitchens and offices, or email from their dens and desktops. Community interactions have moved inside the private home — where most entertaining, phone-calling and emailing take place — and away from chatting with patrons in public spaces such as bars, street corners and coffee shops (Putnam 2000; Wellman and Leighton 1979; Fischer 1982, 1984).

People's personal communities are "glocalized": extensively global but also intensely local (see also Robertson 1992). Yet this occurs within household walls and not neighbourhood boundaries.

Place – in the form of households and work units remains important – even if neighbourhood or village does not. Personal communities are both household bound but with ties much less constrained by distance than in previous generations. Households and work units are important bases of interaction. They also provide places from which their automobiles, (wired) phones and Internet connections operate. Glocalized networks operate more independently of their surrounding environment than little-box groups. This is not social disintegration. People and places are connected. Yet there is little social or physical intersection with the intervening spaces between households. It is place-to-place connectivity, and not door-to-door. People often get on an expressway near their home and get off near their friend or colleague's home with little sense of what is in-between. Airplane travel and email are even more context-less.

Homes have become bases for privatized relationships that are more voluntary and selective than those that functioned in the public spaces of the past. By contrast to traditional meetings in village squares or pubs, friends and relatives get together in private as small sets of singles or couples, but rarely as communal groups. There is probably less investment in public life: local politics, community groups, and civic organizations. Relationships are more selective, and social closeness does not mean physical closeness Networks now contain high proportions of people who enjoy one other. They contain low proportions of people who are forced to interact with each other because they are juxtaposed in the same.

Glocalized place-to-place connectivity, based on inter-household networks, creates a more fluid system for accessing resources, be they material, cognitive, or influential. Switching and maneuvering among networks, people can use ties to one network to bring resources to another. Knowing how to network (on and offline) becomes a human capital resource, and having a supportive network becomes a social capital resource, creating the possibility of linkage, trade and cooperation (Lin 2001; Wellman and Frank 2001). For example, the Italian-American "urban villagers" studied by Herbert Gans (1962) could not prevent their door-to-door community from being destroyed by a municipal-developer alli-

ance intent on building new high-rises. Their bounded community had no links to politically powerful coalitions outside of their Boston neighbourhood. Not only do people living in insalubrious neighbourhoods suffer, thus those without networking resources are interpersonally adrift.

Although Torontonians' communities are dispersed, on a daily basis, most of their face-to-face interactions are with people who live or work near them. Torontonians even have much of their telephone contact with neighbours (Wellman, et al. 1997). Thus, even spatially liberated people cannot avoid neighbours. Local relationships are necessary for domestic safety, controlling actual land-use, and quickly getting goods and services, as Jane Jacobs (1961) has pointed out for North America in the 1950s and others have reaffirmed for contemporary North America (Lee and Campbell 1999; Wellman and Gulia 1999b; Sampson, Morenoff and Earls 1999). Moreover, when transportation, communication and security are scarce, local ties assume more importance as Charles Tilly (1973) has argued for portions of preindustrial Europe, Vicente Espinoza (1999) shows for impoverished Chileans, and the daily newspapers show for fearful residents of Bosnia, Chechnya, Northern Ireland, Rwanda, and post-attack New York.

As such, place-to-place connectivity has dual resource control imperatives as Charles Tilly pointed out when he wondered under what circumstances "do communities act?" (1973, see also Tilly 2000). On the one hand, the security of the household base and its surroundings are important, and neighbours are scarcely known and not knit into a strong network. This makes a household's local politics one of securing the property and area with guarded gates; getting people as neighbours with the "right" demographics and lifestyle; encouraging a strong, responsive police presence. On the other hand, residents want high-speed, unfettered access to the Internet, expressways and airports to facilitate their links with people in other places (Hampton and Wellman 1999). Their security concerns combine traditional fears of burglary with new needs for anti-virus checkers, spam and obscenity filters, disk backups, and firewall-like protection against hacker intrusion.

Control of resources in such place-to-place systems is a mixture of control of property and control of networking. Knowing how to network (on and offline) becomes a human capital resource, and having a supportive network becomes a social capital resource (Wellman and Wortley 1990). The cost is the loss of a palpably present and visible local community to provide a strong identity and belonging. The gain is the increased diversity of opportunity, greater scope for individual agency, and the freedom from a single group's constrictive control.

There is a contextual vacuum in relationships based on place-to-place community as compared to door-to-door community. The most obvious manifestations of this are expressway travel, telephones (since party lines became passé before World War II; see Fischer 1992) and, more recently, e-mail. The places are connected, but there is no social or physical intersection with the spaces the connection has passed through until it arrives at the portal. People often get on a near-by expressway entrance and get off near their friend/kin's house with little sense of what has lay in-between. Airplane travel is even more context-less, despite occasional gasps as the Rockies or the Alps are sighted beneath the clouds.

Glocalized place-to-place community links households as well as people (Wellman and Leighton 1979; Wellman 1979, 1999a). People go from some-*where* to some-*where* to meet one or more persons, usually inside homes. Or people call some-*where*–to a home or office–to talk to the household: either a particular someone or whoever answers. The household or work unit is what is visited, telephoned or emailed. Relations within the household or work unit continue to be somewhat communal, supportive and controlling. They are the home bases from which people reach out in-person and ethereally, to engage with their networks. Yet home-based networks often function in private spaces that do not involve surrounding local areas. Moreover, community ties (among married couples) frequently involve both husbands and wives in the western world. They see their friends in common, interact with each other's families, and get support from in-laws as easily as they get support from their own kin.

Thus community ties have become private relationships that do not involve the local area (Wellman 1985; Wellman and Wellman 1992). The sparse and unbounded nature of community networks afford people more discretion in the persons, places, and times of their interactions. Such networks frequently have more physical barriers to access and interaction. For example it is rare for a North American urbanite to go bounding into another's home without a previous invitation and a knock on the door (Michelson 1976). Because of the difficulty of coordinating sparse networks, interactions are more apt to be one-on-one, and much information tends to be privately held within a dyad or selectively shared with sparsely-knit sets of similarly-minded network members.

The absence of near-by friends and well-used convivial public spaces means that people do not go out into the neighbourhood to find much community. Instead, they have selective encounters, singly or in couples, with dispersed community network members. Rather than operating out of public neighbourhood spaces, contemporary communities usually operate out of private homes. Homes have become bases for relationships that are more voluntary and selective in than the public communities of the past. Friends and relatives get together as small sets of singles or couples, but rarely as communal groups (Wellman 1992b). This voluntary selectivity means that communities have become homogeneous networks of people with similar attitudes and life-styles (Feld 1981).

Yet the easy accessibility of local relationships means that those local ties that do exist are significant. Although neighbours (living within one mile) comprise only 22 percent of Torontonians' active ties, these neighbours engage in fully 42 percent of all interactions with active network members (Wellman 1996). Driving a car or staying home and using the telephone or e-mail offer little opportunity en route for the casual contact and new encounters that can diversify lives. Cars leave garages as sealed units, opened only on reaching the other's home; telephones and modems stay indoors, sustaining closed duets with already-known others. The shift from individualized to chain and franchised stores provides a commodified, cleansed and sanitised experience.

Where North Americans a generation ago often spent Saturday night going out for a movie and pizza, they now invite a few friends over to their homes to watch videos and order a pizza to be delivered. At the same time, the proliferation of home computers facilitates the tendency of "knowledge workers" to use the home as a work site, either as the place for workaholics bringing work home or for teleworkers routinely spending some or all of their work time in home-based work (Salaff, et al. 2000).

As Toronto pundit Marshall McLuhan observed (1973), North Americans go out to be private—in streets where no one greets each another — but they stay inside to be public — to meet their friends and relatives. Public spaces have become residual places to pass through or to shop in. Rather than participating in clubs or organizations, when they do go out, North Americans usually go out alone, in couples or in small, informal groups (Wuthnow 1998; Putnam 2000). When Torontonians do go out to the movies, most (55 percent) go alone or in pairs (Oh 1991). The community of the pub in the *Cheers* television show was appealing because it is rare (Wortley, Wellman and Eliany 1992). In reality, only 10 percent of adult Canadians go to a pub once a week or more. Suburban shopping malls have become residual agoras — for consumption purposes only but not for discussion.

As community has become private, people feel responsible for their "own" — the members of their community networks with whom they have strong ties — but not for the many acquaintances and strangers with whom they rub shoulders but are not otherwise connected. Private contact with familiar friends and relatives has so replaced public gregariousness that people pass each other unsmiling on streets. This privatization may be responsible for the lack of informal help for strangers who are in trouble in public spaces (Latané and Darley 1976). It is probably also a reason why people feel that they lack friends and are surrounded by strangers even when their networks are abundantly supportive (Lofland 1973).

The emphasis on within-household interaction and the de-emphasis on neighbourly community means that the search for the right neighbourhood is not necessarily a search for the right set of community interactors. It may well be a matter of a search for safety in local areas and within the home, and

the community that is sought for less-mobile elderly and children (getting "the right school") than for mobile adults. Paradoxically, because the lack of neighbourhood community means that neighbours cannot be relied on to preserve local safety – what Jane Jacobs (1961) has called "eyes on the street"– household insecurity may increase the premium for living in the right area. If one has no confidence that friendly neighbours will keep an eye on things, then safe location becomes more important. Thus the value on living in the right place may be another sign of individual and household privatization rather than a sign of a premium on neighbourhood community.

H.   Communities Have Become Domesticated and Feminized

The public community of earlier eras was largely a man's game. Until well into this century, men customarily gathered in communal, quasi-public milieus, such as pubs, cafes, parks and village greens (Roche 1981; Stearns 1990; Rotberg 2001; Ethington 1994; Tilly 1975, 1978, 1984).

Rather than engaging in public community, women have typically visited each other's homes in small numbers to provide companionship and domestic support (Hansen 1994). Consequently women's communities have been smaller and more private than men's. (See Duby 1985; Garrioch 1986; Gullestad 1984; Roche 1981; Roncière 1985; Sharma 1986; Vicinus 1985). Although there have been many women's organizations (Clemens 2001), when women have left their homes to do paid work, shopping or child care, they returned directly home afterwards (Elshtain 1981; Mackenzie 1988; Shorter 1975; Tilly and Scott 1978; Lofland 1995). The nineteenth century "cult of domesticity ... [preached that while] men took care of business and politics, women devoted themselves to the life of the home" (Wall 1990, pp. 144-145; se also Cott 1977).

While men now spend more time at home instead of at bars or cafes, the high percentage of women engaged in paid work outside their homes means that women spend less time at home. Men and women often lead asynchronous lives, with different time schedules and few family members (Putnam 2000; Zamir, Volker and Flap 2001; McPherson and Ranger-Moore 1991; Harvey and Taylor 2000). When husbands and wives do happen to be together, they are apt to stay at home, for they

are in no mood to go out and socialize after their weary trips home from work. In any event, zoning regulations in North America often place commercial areas for recreation far from home. Domestic pursuits dominate, with husbands and wives spending evenings and weekends together instead of the men going off to pubs and street corners, and few women being home during the day. Workaholics bring their computer disks home; couch potatoes rent videos.

The men have now joined the women: Their communities have moved inside, into private homes. Homes have become appreciably larger and more suitable for entertaining (Ward 1999). A smaller number of children means less opportunity to meet the parents of playmates, traditional an important vector of developing local ties (Gates, Stevens and Wellman 1973). The separation of work from residential localities means that co-workers commute from different neighbourhoods and no longer come home from work in solidary sociable groups. The lure of air conditioning, clothes dryers, television and the Internet has brought both men and women indoors to their households instead of spending time on front porches, pubs and cafes. As a result, they chat less with their neighbours, and are less able to provide mutual aid, or exercise social control over each other, their children, and unwanted strangers (see also Jacobs 1961; Galston 1999).

In their domestic headquarters, many Northern American couples operate their networks jointly (Wellman and Wellman 1992). The household has been the key interacting unit in place-to-place communities. In-laws are as supportive as own-kin (Wellman 1999a). Usually it is the household that exchanges support rather than the person: For example, our Toronto research found in-laws to be as supportive as blood relatives (Wellman and Wortley 1989). By contrast to the specialized support that community members exchange, spouses supply each other with almost all types of social support (Wellman and Wellman 1992). Besides not getting domestic social support, unmarried do not have access to the supportive networks that accompany spouses to marriage.

In contemporary place-to-place communities, married women not only participate in community, they dominate the practice of it in their households. Women have historically been the "kinkeepers" of

western society: mothers and sisters keeping relatives connected for themselves, their husbands and their children. They have become the pre-eminent suppliers of emotional support in community networks as well as the major suppliers of domestic services to households (Wellman 1992a). With their men at home, wives have added the burden of maintaining their husband's friendships to their traditional role of maintaining ties with their own friends and with their own and their husband's kin. The privatization and domestication of community, community-keeping has become an extension of kinkeeping, with both linked to domestic management.

The move of men's friendships into households is not just a change in venue. It has affected how friendships are maintained, how they are interrelated, and how friendship itself is defined. Despite recent moves in the direction of symmetric marriages, homes remain women's domain. No longer do husbands and wives have many separate friendships. As men now usually stay at home during their leisure time, the informal ties of their wives form the basis for relations between married couples. Women have come to define the nature of friendship and help maintain many of their husbands' friendships. With the greater participation of men in household activities, informal ties among women form the basis for many of the men's friendship relations between couples. Wives recruit most new friends and neighbours and arrange most get-togethers between couples and family members (including in-laws). Husbands and wives now have more integrated friendships, men do not routinely rely on their friends to accomplish important tasks outside of the household, and the intellectual climate treats friendship as a relationship in which women excel ((Griffin 1981; Sherr Klein 1981; MacInnis, 1991).

With the great majority of women doing paid work as well as domestic house work, their "double-load" of domestic work and paid work (Shelton 1992) has expanded to a "triple load" that now includes community "net work". Because women are the community-keepers and are pressed for time, men become even more cut off from male friendship groups. The heavy involvement of women in paid work, combined with the separation of the workplace from the residence, has caused couples to focus their friendships on small domestic get-togethers. As husbands and wives work together more in raising

families, their friends become integrated and their kinship relations become more similar to their friend-ship ties.

While friendships continue to flourish in these glocalized, place-to-place households, they are different from what they used to be. Although the situation varies over time and between localities, friendships between North Americans -- men *and* women -- now operate out of homes rather than public spaces. For example, the separation of home from work and the development of introverted homes set off in areas without usable public spaces has affected the kinds of friendships men can have. At the same time that men have increased their domestic involvement, they have lost access to male hang-outs. They have few ties to their neighbours. Friendships are now private affairs between residentially-dispersed buddies or couples. This domestication of community is apt to intensify as the Internet make it easier for people to maintain ties from the safety, comfort and privacy of their own homes. Private contact with familiar friends replaces public gregariousness. Rather than getting together in permeable public spaces, where friends-of-friends can meet and bystanders can join in conversations, current visits are by invitation only.

Thus the privatization and domestication of relationships have transformed the nature of community. The nature and success of their friendships are being defined in domestic, women's, terms. Just as husbands and wives are more involved with each other at home, the focus of couples and male friends is on private, domestic relations. Men's friendships have come to be defined as women's always have been -- relations of emotional support, companionship and domestic services (Pleck 1975; Rubin 1985; Lyman 1987; Allan 1989). Women's ties, which dominate community networks, provide important support for dealing with domestic work. Community members help with daily hassles and crises; neighbours mind each other's children; sisters and friends provide emotional support for child, hus-band and elder care. The material comfort of most North Americans means they no longer need to rely on maintaining good relations with kin, friends and neighbours to get the necessities for material sur-vival. Although men and women do give each other important material help, these are often more mat-

ters of convenience than necessity. Yet those living near-by are still depended on for physical aid – providing goods and services (Wellman and Wortley 1999; Wellman and Frank 2001). The relative lack of such ties means people can become dependent on the less tailored, sometimes careless help of paid professional services.

Friendships have become ends in themselves, to be enjoyed in their own right and used for emotional adjustment in a society which puts a premium on feeling good about oneself and others. This resonates with contemporary feminist celebration of women for being more qualified in the socioemotional skills that are the basis of contemporary communities — and the downgrading of the allegedly masculine qualities of instrumentalism and materialism (Griffin 1981; Sherr Klein 1981; MacInnis, 1991). Community is no longer about men fixing cars together; it is about couples chatting about domestic problems.

PART THREE: COMPUTER NETWORKS AND NETWORKED COMMUNITIES

I. IS THE INTERNET INCREASING, DECREASING, OR TRANSFORMING COMMUNITY?

This section discusses the interplay between the development of computer-mediated communication – especially the Internet – and the nature of community (see also Wellman 2000a). Often computer networks and social networks work conjointly, with computer networks linking people in social networks, and with people bringing their offline situations to bear when they use computer networks to communicate. These ties have transformed cyber*space* into cyber*places*, as people connect online with kindred

spirits, engage in supportive and sociable relationships with them, and imbue their activity online with meaning, belonging and identity. Just as the flexibility of less-bounded, spatially dispersed social networks creates demand for the world wide web and collaborative communication, the breathless development of computer networks nourishes societal transitions from little boxes to social networks.

Can people find community online in the Internet? Can relationships between people who never see, smell or hear each other be supportive, companionable and provide social identity? While the debate continues (Kraut, et al. 2001), the Internet gets used by a majority of North Americans (Feong, et al. 2001; Wellman, et al. 2002; Kew, Wellman and Chen 2002). The number of users continues to grow, in North America and abroad, although the slowing rate of growth may indicate a "plateauing" effect with the percentage of North American Internet users stabilizing at upwards of 60 percent of adults, at least for the short term (Reddick, Boucher and Groseillers 2000).

A.   Is the Internet Increasing Community?

Utopians have claimed that the Internet provides new and better ways of communication, while dystopians have argued that the Internet takes people away from their communities and families. The celebration of dense, bounded village-like groups of community and work pervades one strain of thought about the impact of the Internet. Many see it as a boon for the alienated and isolated who will no longer be huddled in front of their television screens.

Some go beyond seeing the Internet as enhancing community to seeing it as transforming it by creating new forms of online interaction and enhancing offline relationships: In this scenario, video screens have become magic communicators enabling people to use online discussion groups, bulletin board systems, virtual chat rooms, and the like to make meaningful contact around the world with new-found comrades (Rheingold 1993, 2000; Wellman and Gulia 1999a).

Although early accounts focussed on the formation of online "virtual" communities, it has become clear that most relationships formed in cyberspace continue in physical space, leading to new forms of community characterized by a mixture of online and offline interactions. Moreover, online interactions

fill communication gaps between face to face meetings. The Internet thus enhances the tendency for many ties to be nonlocal, connected by cars, planes, phones, and now computer networks. Although a developing phenomenon world-wide, nonlocal community is probably most prevalent in North America where people move frequently and sometimes far-away; where family, friends, former neighbours, and workmates are separated by many miles; and where the many immigrants keep contact with friends and relatives in their homelands.

Those who see the Internet as playing an increasingly central role in everyday life argue that it increases communication, offline as well as online. In this view, the Internet not only afford opportunities to contact friends and kin at low cost, it also enhances face-to-face and telephone communication as network members: The Internet can also increase civic involvement in voluntary organizations by facilitating the flow of information between face-to-face meetings and arranging these meetings themselves. The plethora of information available on the web and the ease of using search engines and hyperlinks to find groups fitting one's interests enables newcomers to find, join, and get involved in kindred organizations (Horan 2000).

B.   Is the Internet Decreasing Community?

By contrast, critics worry that life on the Internet can never be meaningful or complete because it will lead people away from the full range of in-person contact. Or, conceding half the debate, they worry that people will get so engulfed in a simulacrum virtual reality, that they will lose contact with "real life." This latter side of the debate is Tönnies *nouveau*, warning that meaningful contact will wither without the full bandwidth provided by in-person, in-the flesh contact. The view that the Internet decreases community offers several interrelated bases for its contention:

1. The Internet may be diverting people from "true" community because online interactions are inherently inferior to face-to-face and even phone interactions. Some analysts have argued that the comparatively low social presence of computer mediated communication cannot by itself sustain strong ties because of the lack of physical and social cues and immediate feedback (Stoll 1995). (Daft and

Lengel 1986; Short, Williams and Christie 1976; Kiesler and Sproull 1991; Hiltz and Turoff 1993; La-tané and Bourgeois 1996).

2. Skeptics question the quality as well as the narrowness of online community (Nissenbaum 1999). Eric Uslaner (2000b) argues that the Internet fosters fragmented identities and communities that weaken shared understanding and enforceable trust.

3. The Internet may compete for time with other activities in an inelastic 24-hour day, and can draw people's attention away from their immediate physical environment. It can blur the home-work boundary, straining family life. (Nie 2001; Anderson and Tracy 2001).

4. The Internet may be a stressor that depresses and alienates people from interaction (Kraut, et al. 1998).

5. Although the Internet can foster global interactions, it keeps people indoors, staring at their screens, and neglecting local interactions at home and in the neighbourhood.

6. Online ties may be more homogeneous in perspective. They often evolve around a specific interest such as soap operas or BMW cars. This can narrow perspectives and access to new information.

C.   Is the Internet Transforming Community?

Rather than increasing or destroying community, perhaps the Internet can best as integrated into rhythms of daily life, with life online viewed as an extension of offline activities. Thus, the Internet provides an additional means of communication to telephone and face-to-face contact, one that can be more convenient and affordable. This suggests that the Internet's effects on society will be evolutionary, like the telephone has been, continuing and intensifying the interpersonal transformation from "door-to-door" to individualized "place-to-place" and "person-to-person" networks. Although face-to-face and telephone contact continue, they are complemented by the Internet's ease in connecting geographically dispersed people and organizations bonded by shared interests.

Email continues to be the most important type of Internet medium for sustaining community (Klement, Wellman and Hampton 2002). There are multiple interpersonal reasons for using email with community members:

1. It is almost as easy to send a message to 10 friends as it is to contact one.

2. Group aliases allow people to contact 100 or more friends by typing a single word.

3. Email discussion groups and real-time chat groups provide specialized audiences—and some respondents—of the hundreds and thousands.

4. Many online ties are palpable, supportive relationships. The Internet is useful both for maintaining strong ties of intimacy and weaker ties of acquaintanceship.

5. Rather than being exclusively online or in-person, many community ties are complex dances of face-to-face encounters, scheduled meetings, two-person telephone calls, emails to one person or several, and broader online discussions among those sharing interests.

It may be that the Internet is more useful for maintaining existing ties than for creating new ones. Nor might the Internet lead to organizational and political participation, if users have no interest in such matters (Cohill and Kavanaugh 2000; Kavanaugh and Patterson 2001). Thus, if the Internet transforms community, then Internet use should add to offline interpersonal interaction, not affect organizational participation, and increase commitment to community. The level of Internet involvement will not be associated with either more or less offline activity.

D.   The Internet Increases and Transforms Community

Evidence about the Internet's effect on community was originally mixed. Most cross-sectional studies showed that those online more engaged more in community (Katz 1997; Robinson, et al. 2000; Katz, Rice and Aspden 2001; Haythornthwaite and Wellman 1998; Wellman et al. 2001). By contrast, Nie's (2001) study suggested that extensive online involvement took people away from interaction with household and community members. Moreover, the only true longitudinal study found that some "new-

bies" became more depressed, alienated and isolated during the first six months of computer use (Kraut, et al. 1998).

As studies develop, it is becoming clear that the Internet is not destroying community but is responding to, resonating with, and extending the types of community that have already become prevalent in the developed Western world (Haythornthwaite and Wellman 2001; Wellman and Haythornthwaite 2002). The sheer amount of time spent online is increasing, per capita as well as overall. For example, where the average AOL user spent 31 minutes per day online in the first quarter of 1997, in four years this had more than doubled to 64 minutes online in the first quarter of 2001 (Odlyzko 2001). Nor does familiarity breed interpersonal contempt: The more contact people have online, the greater the impression they make (Liu 2001).

For one thing, as the newbies studied by Kraut, et al. (2001) gained more experience with the Internet, their depression and alienation disappeared, and their social contact increased enough to have a positive impact on their overall interactions with community members. A comparative analysis found that social support obtained online helped people to deal with depression (LaRose, Eastin and Gregg 2001). A large survey of *National Geographic* web-site visitors, also found that the Internet increased community interaction (Wellman, et al. 2001; Quan, et al. 2002). While face-to-face visits and phone calls neither declined or increased with increased Internet use, it added to it. Hence, the overall volume of contacts with friends and relatives increased. However, another study does find that email use is displacing telephone use to some extent (Dimmick, Gade and Rankin 2001). Perhaps there are differences in the kinds of communication that take place on the Internet or by telephone or face-to-face.

The positive impact of the Internet on community ties is true for those living both nearby and far away. The proportionate gain in contact is greatest for contact with friends and relatives living at a distance (Wellman, et al. 2001; Hampton and Wellman 2001), as one might expect from a system able to cross time zones at a single bound and were there is no differentiation between short-distance and

long-distance messages. Yet contact remains highest with those living nearby, both online and offline (Wellman, et al. 2001; Hampton and Wellman 2001). Cyberspace does not vanquish the importance of physical space. Indeed, many email, short text, and chat messages are to set up face-to-face meetings (Haythornthwaite and Wellman 1998; Ling and Yttri 2002).

II.   ISSUES IN THE IMPACT OF THE INTERNET ON COMMUNITY

A.   Are Online Relationships Narrowly Specialized or Broadly Supportive?

Online groups are a technologically-supported continuation of a long term shift to communities organized by shared interests rather than by shared place (neighbourhood or village) or shared ancestry (kinship group). Relationships in these virtual communities can be quite narrow, existing mostly for information processing.(Rheingold 2000; Sproull and Faraj 1995). Although the view is limited, the focus can be important when efficiency and speed are needed, as when a cluster of social network analysts quickly analyzed the network of those who allegedly attacked New York City on Sept 11, 2001.

If the Internet were solely a means of information exchange, then virtual communities played out over the Internet would mostly contain only narrow, specialized relationships. In practice, those who communicate online maintain a variety of links, encompassing information exchange, companionship, emotional aid, arranging services, and providing a sense of belonging (Hiltz, Johnson and Turoff, 1986; Walther, 1994; Walther, Anderson and Park 1995; Klement, Wellman and Hampton 2002). Information is only one of many social resources exchanged on the Internet. Despite the inability to reach out and touch someone online, many Internet participants get help in electronic support groups for social, physical and mental problems along with information about treatments, practitioners and other re-

sources. For example, physically-isolated Muslim women in North America have found online support and information sharing from each other (Bastani 2001b; Cullen 1995; Foderaro 1995; Hampton and Wellman 2001). As social beings, those who use the Internet seek not only information but also companionship, social support and a sense of belonging. These are all non-material resources that are often possible to provide from the comfort of one's computer and often do nor require major investments of time, money, or energy. (Furlong 1989; Hiltz, Johnson and Turoff 1986; Rice and Love 1987; McCormick and McCormick 1992; Walther 1994; Rheingold 1993; Meyer 1989; Sproull and Faraj 1995; Kraut et al. 1995; Rheingold 2000; Haythornthwaite and Wellman 2001; Miyata 2002; Wellman and Haythornthwaite 2002).

B.   In What Ways are the Many Weak Ties on the Internet Useful?

Virtual communities may resemble "real life" communities in the sense that support is available, often in specialized relationships. However, Internet members are distinctive in providing information, support, companionship and a sense of belonging to persons they hardly know off-line or who are total strangers. Studies of computer-supported cooperative work provide ample evidence of the usefulness of acquiring new information from weak ties on the Internet (Constant, Sproull and Kiesler 1997;Pickering and King 1995; Garton and Wellman 1995; Harasim and Winkelmans 1990; Carley and Wendt 1991; Bastani 2001b; Miyata 2002). For example, 58 percent of the messages on an organization's discussion list *(DL)* came from strangers (Finholt and Sproull 1990; Kiesler and Sproull 1988).

This willingness to communicate with strangers online contrasts with in-person situations where bystanders are often reluctant to intervene and help strangers (Latané and Darley 1976). Yet bystanders are more apt to intervene when they are the only ones around (and most reluctant when there are many others) and requests are read by solitary individuals, alone at their screens. Even if the online request is to a newsgroup or discussion group, and not by personal email, as far as the recipi-

ent of the request knows, s/he may be the only one available who could provide help. In chat groups and list serves, even when such support is a small act such as mailing get-well cards or "cyber chicken soup," such acts can cumulatively sustain a group. Each act is seen online by the entire group and perpetuates a norm of inclusionary mutual supportiveness in the organization or community (Rheingold 2000). This is similar to communal, real life, acts of compassion (Wuthnow 1991).Yet online assistance will be observed by the entire group and positively rewarded by its members (Kollock and Smith 1996). Moreover, it is easier to withdraw from problematic situations when they are online — all one has to do is "exit" the Internet session — than it is to withdraw from face-to-face interactions.

The lack of status or situational cues can encourage contact between weak ties. Often, the only thing known about others is their email address which may provide minimal or misleading information. The relatively egalitarian nature of Internet contact can encourage responses to requests. By contrast, the cues associated with in-person contact transmit information about gender, age, race, ethnicity, life-style and socioeconomic status, and clique membership (Culnan and Markus 1987; Garton and Wellman 1995; Hiltz and Turoff 1993; Weisband, Schneider and Connolly 1995). Online interaction can also generate a culture of its own, as when humorous stories (or virus warnings) sweep the Net, coming repeatedly to participants.

C.   Is There Reciprocity and Attachment Online?

The problem of motivation for giving support in a virtual community arises because many of the exchanges that take place online are between persons who never (or rarely), meet in-person, have only weak ties, and are not bound into densely-knit community structures that could enforce norms of reciprocity. Some analysts have suggested that the greater the social and physical distance between the support seeker and provider (i.e., the weaker the tie), the less likely that reciprocity will take place. This suggests that people may not be motivated to provide assistance, information and support to physically and socially-distant others on the Internet as they are less likely to be rewarded or receive support in return (Constant, Sproull and Kiesler 1997).

Nevertheless, many Internet members do reciprocate support, even to weak ties (Hiltz, Johnson and Turoff 1986; Walther 1994). Constant, Sproull and Kiesler's (1997) study of information sharing in an organization suggests two explanations for this reciprocity (see also Constant, Kiesler and Sproull 1994). One is that the process of providing support and information on the Internet is a means of expressing one's identity, particularly if technical expertise or supportive behavior is perceived as an integral part of one's self-identity. Helping others can increase self-esteem, respect from others and status attainment.

Norms of generalized reciprocity and organizational citizenship are another reason for why people help others online (Constant, Sproull and Kiesler 1997). People who have a strong attachment to the organization will be more likely to help others with organizational problems. Such norms typically arise in a densely-knit community, but they appear to be common among frequent contributors to distribution lists and newsgroups. People having a strong attachment to an electronic group, will be more likely to participate and provide assistance to others Kollock and Smith 1996).

Group attachment is intrinsically tied to norms of generalized reciprocity and aiding mutual friends. People often show respect for groups by helping both members they do not know and members who have once helped them (Constant, Sproull and Kiesler 1997; Rheingold 2000). Moreover, those who have contributed actively to the BMW car, community sociology or social network discussion groups get their requests for advice answered more quickly and more widely (personal observations). The accumulation of small, individual acts of assistance can sustain a large community because each act is seen by the entire group and help to perpetuate an image of generalized reciprocity and mutual aid. People know that they may not receive help from the person they helped last week, but from another network member (Rheingold 1993; Barlow 1995; Lewis 1994). That is probably why people reply to the entire group when answering an individual's question. providing assistance to others when the group is large can be quite easy

D.   Are Strong, Intimate Ties Possible Online?

Even if weak ties flourish in virtual communities, does the narrower bandwidth of computer-mediated communication work against the maintenance of socially-close, strong ties? When people chat, get information and find support on the Internet, do they experience real community or just the inadequate simulacra about which dystopians have warned?

Strong ties that are online have many characteristics that are similar to strong offline ties. They encourage *frequent, companionable* contact and are *voluntary* except in work situations. One or two keystrokes are all that is necessary to begin replying, facilitating *reciprocal*, *mutual support* of tie partners' needs. Moreover, the placelessness of email contact aids *long-term* contact, without the loss of the tie that so often accompanies geographical mobility.

But if the relationships are companionate and supportive, are they truly intimate and special enough to be strong ties, and do they operate in multiple social contexts? Part of the fears about the inability of the Internet to sustain strong ties is wrongly specified. Enthusiasts and critics of virtual community sometimes parochially vie relationships as being solely online. This fixation on the technology leads analysts to ignore the abundant accounts of community ties operating both online and off-line, with the Internet being just one of several ways to communicate. Despite all the talk about virtual community transcending time and space *sui generis*, much contact is between people who see each other in person. As with the telephone and the fax, the lower social presence of email can maintain strong ties between persons who originally met face-to-face. E-mail exchanges intersect with in-person meetings, filling in gaps and making arrangements for future get-togethers. Conversations started on one medium continue on others.

The Internet is rich enough to sustain strong ties (see the reviews in DiMaggio, et al. 2001; Garton and Wellman 1995; Sproull and Kiesler 1991). Walther (1995) argues that online relationships are socially close, suggesting that groups of people interacting on the Internet become more personal and intimate over time (see also McGrath and Hollingshead 1994). He points out that most research experiments analyze social interactions within a limited time, missing the nuances of later interactions and

the potential for relationships to grow closer over time. He argues that the medium does not prevent close relationships from growing but simply slows the process. Relational development takes longer online than in face-to-face interactions because communication is usually asynchronous (and slower) and the available bandwidth offers less verbal and non-verbal information per exchange. Walther's experiments comparing groups of undergraduates online and in-person meetings suggest that over time, online interactions are as sociable or intimate as in-person interactions. In other words, the Internet does not preclude intimacy.

Although there are many anecdotes about anti-social behavior online, such as confidence men betraying the innocent, entrepreneurs "spamming" the Internet with unwanted advertisements, online stalkers harassing Internet participants and scoundrels taking on misleading roles (e.g., "Cybergal" 1995). The most widely-reported stories are about men posing online as women and seducing other women (e.g. Slouka 1995), but the accounts suggest that these are probably rare incidents. Moreover, masquerading can have a playful, creative aspect allowing people to try on different roles: Such systems as the real-time IRC (Reid 1991; Bechar-Israeli 1995; Danet, Ruedenberg and Rosenbaum-Tamari 1998; Danet 2001) and the asynchronous EIES (Hiltz and Turoff 1993) encourage role-playing by permitting participants to communicate by nicknames.

A possibly greater threat than to community relationships is the ease by which relationships are disrupted. The narrower bandwidth of communication facilitates the misinterpretation of remarks and the asynchronous nature of most conversations hinders the immediate repair of damages.

E.   Does the Internet Increase Community Diversity?

Although immersive role-playing Internet environments at times resemble village-like structures in the ways they capture some participants' attention (Reid 1998; DuVal Smith 1998; Kim 2002), people rarely spend their full time in these environments. The tendency of the Internet is to foster participation

in multiple, partial communities. People often subscribe to multiple discussion lists and newsgroups. They can easily send out messages to personal lists of their own making, perhaps keeping different lists for different kinds of conversations. Moreover, they can vary in their involvements in different communities, participating actively in some, occasionally in others, and being silent "lurkers" in still others.

Such communities develop new connections easily. The Internet makes it easy to ask distant acquaintances and strangers for advice and information via email (distribution lists, newsgroups, etc.). When strong ties are unable to provide information, weak ties are easily reachable. Hence, computer-supported solutions are developing for working through trusted interpersonal relationships to identify, locate, and receive information within and between communities and organizations (Contractor, Zink and Chan 1998; Sack 2000; Nardi, Whittaker and Schwartz 2001; Jones, Ravid and Rafaeli 2000; Heath, Knoblauch and Luff 2000; Uslaner 2000a, 2000b).

The Internet encourages the expansion of community networks. Information may come unsolicited through discussion groups, newsgroups and forwarded messages from friends who "thought you might like to know about this." Friends forward communications to third parties, and in so doing, they provide indirect contact between previously-disconnected people who can then make direct contact. Newsgroups and discussion groups provide permeable, shifting sets of participants, with more intense relationships continued by private email. The resulting relaxation of constraints on the size and proximity of one's "communication audience" on the Internet can increase the diversity of people encountered (Lea and Spears 1995).

Characteristics of the Internet afford diversity as well as homogeneity, especially as the population of users becomes more socially diverse. The Internet's relative lack of social richness can foster contact with more diverse others. The lower social presence of email and chat – as compared with face-to-face encounters or telephone conversations -- makes it easier to contact strangers. There is less concern about rude intrusion or interpersonal risk (Stoll 1995). The lack of social and physical cues online

makes it difficult to find out if another Internet member has similar social characteristics or attractive physical characteristics (Sproull and Kiesler 1986), and Internet norms discourage asking outright if someone is high or low status, handsome or ugly. Similarities in interests are emphasized; differences in physical attributes or social characteristics are not seen or emphasized. The Internet's lack of in-person involvement can give participants more control over the timing and content of their self-disclosures (Walther 1995). This allows relationships to develop on the basis of shared interests rather than be stunted at the onset by differences in social status (Hiltz and Turoff 1993; Coate 1994; Weis-band, Schneider and Connolly 1995). These affordances of the Internet can foster community ties with people who have more diverse social characteristics than might normally be encountered in person Such specialized communities, based on shared interests, can foster cognitive homogeneity. The focus on shared interests rather than on similar characteristics can be empowering for otherwise lower-status and disenfranchised groups, especially when their residential and occupational segregation minimizes contact with others (Tigges 1998; Pinkett 2001). The homogeneous interests of virtual community participants can foster high levels of empathetic understanding and mutual support (Lazarsfeld and Merton 1954; Verbrugge 1977; Feld 1982; Marsden 1983). Hence computer mediated communication can help people to expand their stockpile of community members that can provide information, instrumental aid and emotional support (Preece 2000; Haythornthwaite, Wellman and Mantei 1995). For example, more than half of the email messages in one organization were from unknown people, different build-ings, or people external to the work group or the chain of command (Finholt and Sproull 1990; Sproull and Kiesler 1991).

F. The Continuing Coexistence of Space with Cyberspace

Physical space and cyber space interpenetrate as people actively surf their networks online and offline. When someone calls a telephone that is hardwired into the telephone network, the phone rings at the *place*, no matter which *person* is being called. Indeed, many place-to-place ties have connected households as much as individuals. Despite the proliferation of cyberspace, in-person contact is still –

and will continue to be – the preferred means of communication to the extent feasible (Casey 1998; Orum and Chen 2002). Cyberspace complements physical place because is the medium by which people arrange things and fill in the gaps between meetings. It also presents options: People will vigorously communicate with whom they want to online in preference to dealing with irrelevant neighbours. Rather than being exclusively online or in-person, many relationships are complex dances of face-to-face encounters, scheduled meetings, two-person telephone calls, emails to one or more persons, and online discussions among those sharing interests.

Many characteristics of the Internet reinforce glocalized, place-to-place connectivity, combining elements of both home-based little boxes and networked individualism. Although the Internet connects globally, it often functions lumpily: Messages are not dispersed evenly around the world but are disproportionately exchanged with a few geographical areas, certain types of people, or people in the same social networks (including "friends of friends"). Having global access does not mean having global connectivity. The Internet both provides a ramp onto the global information highway and strengthens local links within neighbourhoods and households. For all its global access, the Internet reinforces stay-at-homes. Although an Internet account is usually for a person and not for a place, Internet communications are usually sent and received from a fixed place: home or office. The wired, at-home base of many personal computers affords household-based connectivity. The use of always-on, 24x7 Internet connectivity increases confidence that people will be available to read messages or agree to an instant chat. Indeed, like the mobile phone and instant messaging, it may create false expectations that someone is always accessible and always mobilizable.

Glocalization occurs, both because the Internet makes it easy to contact many neighbours, and because fixed, wired Internet connections tether users to home and office desks. Civic involvement combines online, face-to-face, phone and written means of communicating and organizing (Blanchard and Horan 2000; Wellman, et al. 2001). People usually have a good idea of the sociophysical places in which the people they know are reading their messages. If they send messages to their mothers, they

must expect that others at home will also read them. Digital communities and cities are developing, explicitly designed to wire residents to each other as well as to the outside world (Schuler 1996; Malina and Jankowski 1998; Hampton and Wellman 1999; Ishida 2001, Ishida and Isbister 1999; Ishida and Tanabe 2002; Loader, Hague and Brooks 2000; Shaw 2001).

The Internet can intensify neighbouring (Resnick 1999). At work or at home, many emails are local and refer to local arrangements. For example, 57 percent of the email messages received by computer-intensive students in my Berkeley graduate course came from within the city of Berkeley, with another 15 percent coming from elsewhere in the San Francisco Bay area (Wellman 1999a). The visiting Norwegian students in the course received many long-distance messages, but almost all were from Norway – their neighbourhoods had followed them.

To take other examples, residents of a Toronto wired suburb on a high speed network neighbour more actively than others in the suburb (Hampton and Wellman 2000, 2002a; Hampton 2001; Pinkett 2001). These wired "Netville" residents know twenty-five neighbours; the unwired know eight. Their ties range farther through the neighbourhood instead of just clustering on the same block. Their community network was much more densely-knit than the non-wired. Their networks became quickly mobilized for collective action in dealing with burglars, real estate developer, and their Internet service provider (Hampton 2002).

Netville residents use their computers and the Internet heavily. Family members help each other to use computers, share online discoveries, and replace time spent watching television with net surfing. One family have a Saturday evening ritual of gathering around the computer with the family and a bowl of popcorn. Parents rarely complain that the time their children and spouse spend online took away from family activities. (Wellman and Hampton 1999, Hampton and Wellman 1999, 2000; Hampton 2001). The Homenet study in Pittsburgh and the Camfield study in Boston found that in some instances, teenagers have increased power as computer gurus to whom other household members turn for help (Kiesler, et al. 2000; Pinkett 2001).

The Internet increases long-distance involvement as well as local involvement. When Netville residents receive high-speed connections to the Internet, their social contact and supportive exchanges with friends and relatives living more than 50 kilometers away increases substantially. The *National Geographic* web survey also shows that Internet use adds on to—rather than detracts from—in-person and telephone contact with friends and relatives, near-by as well as far-away (Wellman, et al. 2001). Indeed, it may provide a vehicle for reversing the post-1960s decline in American social and organizational involvement (Bellah, et al. 1996; Wuthnow 1998; Putnam 2000).

III. THE RISE OF NETWORKED INDIVIDUALISM AS A BASIS FOR COMMUNITY

A. From Place-To-Place to Person-To-Person Communities

The proliferation of computer-supported social networks is facilitating changes that have been developing for decades in the ways that people contact, interact, and obtain resources with each other. This section discusses how communities – and societies – have been changing towards *"networked individualism,"* or, if you like, *"individualized networking"*.

The structure and composition of community networks affect people's control over their lives, and people's structural positions in community networks affect the kinds of resources to which they have access. We have been experiencing a transition from place-based inter-household ties to individualized person-to-person interactions and specialized interactions. This turn towards communities based on networked individualism started well before the development of cyberspace (Wellman and Wetherell 1996; Wellman 1999a).

The current development of person-to-person connectivity has been afforded both by social changes – such as liberalized divorce laws – and technological changes – such as the proliferation of expressways and affordable air transportation (Wellman 2000a; Galston 1999). Technologically, it has been influenced more by innovations in communication than in transportation. The personalization, wireless portability and ubiquitous connectivity of the Internet all facilitate networked individualism as the basis of community. They are already way stations on the move to person-to-person community. Because connections are to people and not to places, the technology affords shifting of work and community ties from linking people-in-places to linking people at any place. Computer-supported communication will be every*where*, but it will be situated no*where*. It is I-alone that is reachable wherever I

am: at a house, hotel, office, highway or shopping centre. The person has become the portal (Wellman 2000a).

The shift to a personalized, wireless world facilitates *personal communities* that supply support, sociability, information, and a sense of belonging separately to each individual. It is the individual, and neither the household nor the group, that is the primary unit of connectivity. Just as 24x7 Internet computing means the high availability of people in specific places, the proliferation of mobile phones and wireless computing increasingly means the even higher availability of people without regard to place. From the point of view of people using mobile phones, their supportive convoys travel with them ethereally (Katz 1999; Ling and Ytrri 2002; Katz and Aakus 2001). They can link what they are physically doing at the moment to their far-flung community. Yet, people cannot assume that all community members will provide all kinds of help because person-to-person connectivity moves responsibility for well-being from the household and network to the two-person dyad.

As high bandwidth wireless computing becomes prevalent, communicating computers are breaking their tethers and become placeless. There are already leading-edge indicators of this trend. Mobile phones already afford a fundamental liberation from place, and they soon will be joined by wireless computers and personalized software. Internet cafés in malls or main streets allow travellers to keep connected, road warriors use global phone/Internet access networks to connect from hotels or businesses they are visiting, mobile phones are developing Internet capability, and a well-located few have wireless modems on their laptop computers. As satellite links develop and technical standards for wireless communications evolve globally, the same wireless phone-computer will be able to reach the Internet as easily in Bora Bora as in Silicon Valley.

Although the switch from door-to-door to place-to-place community has enabled communities of choice that were less constrained by distance, place-to-place community has preserved some sense of social context. The shift from place-to-place to person-to-person community reduces this contextual sense. Physical surroundings must be described, rather than assumed because people have uncertain

knowledge about the immediate whereabouts and social contexts of their mobile network members. Often, the sociophysical context is ignored, as when people talk loudly on their mobile phones in public. They are not being anti-social: the very fact of their conversation means they are socially connected. Rather, their awareness and behavior are in private cyberspace even though their bodies are in public space.

The technological development of computer-communications networks and the societal flourishing of social networks are now affording the rise of networked individualism in a positive feedback loop. Just as the flexibility of less-bounded, spatially dispersed, social networks creates demand for collaborative communication and information sharing, the rapid development of computer-communications networks nourishes societal transitions from little boxes to social networks (Castells 1996, 2000). Where high speed place-to-place communication supports the dispersal and fragmentation of organizations and community, high speed person-to-person communication supports the dispersal and role-fragmentation of workgroups and households. Each person is a switchboard, between ties and networks. People remain connected, but as individuals rather than being rooted in the home bases of work unit and household. Individuals switch rapidly between their social networks. Each person separately operates his networks to obtain information, collaboration, orders, support, sociability, and a sense of belonging.

B.   The Lessened Role of the Household as a Basic Unit of Community

Where high speed place-to-place communication supports the dispersal and fragmentation of community, high speed person-to-person communication goes one step further and supports the dispersal and role-fragmentation of households. As community moves out of the household and onto the mobile phone and the modem, there is scope for yet another renegotiation of marital relations. Does the switch to person-to-person connectivity mean that even stably-married husbands and wives will be in separate communities? Women have set the rules of the community game in place-to-place relationships and borne the burden of community keeping. If person-to-person community means that it is every person for him/herself, then there may be a return to the gender-segregated marital lives that Elizabeth Bott documented over a generation ago in England (1957), with the additional possibility that men's communities will be smaller than networking-savvy women (Wright 1989; Moore 1990; Wellman 1992a, Bruckner and Knaup 1993). The shift in the western world to single-adult households – both adults working in married households, and serial marriage -- means that married couples are no longer the demographic heartbeat of America, augmenting households with single-gendered adults.

C.   Mobile-ization

"Mobile-ization" is a term I have coined to summarize how the development of globalization, ubiquity, portability, and "always connectivity" (Tom Grey's term, personal communication, July 10 2001) may affect community and society. Until now, mobile phones have gone further than personal computers in affording person-to-person contact. At its most fully developed, mobile-ization assumes that callers and receivers are always available, no matter where they may be. It suits and reinforces mobile lifestyles and physically dispersed relationships. It affords liberation from both place and group. Yet, the fact that people can be reached anytime, anywhere comes at a price. They will need the capability to manage

these connections so that they may efficiently do their jobs without being overcome by constant communications

As mobile phones proliferate, the norms of this inherently person-to-person system foster the intrusion of involving private behaviour into public space (Townsend 2000; see also Lofland 1998). Such transgressions are increasing and upsetting near-by involuntary listeners (Taylor 2000: A21). It is not just the loud noise. Listening through earphones to music on tape and disc players is another example of the personalization of public space. Listeners often appear to be oblivious to passers-by, often walking into them, and unaware (and apparently uncaring) about the unwanted sounds escaping from their earphones.

Mobile phone users *are* communicating, but their communication is often disassociated with the physical place which they are in. They ignore the public aspects of their behaviour. Their failure to relate simultaneously to both cyber place and physical place is what bothers others. Their awareness and behaviour is totally in private cyberspace even though their bodies are in public space.

D.   Specialized Roles and Communities

Computer mediated communication accelerates the ways in which people operate at the centres of partial, personal communities, switching rapidly and frequently between groups of ties. People have an enhanced ability to move between relationships. At the same time, their more individualistic behaviour means the weakening of the solidarity that comes from being in densely-knit, loosely-bounded groups.

Many computer supported social networks are a continuation of the long term shift to communities and work groups that are organized by shared interests rather than by shared locality. The sparse, unbounded nature of the Internet means that people unhappy with one interaction can maneuver between different computer-supported discussion groups and private e-relationships. Although computer supported social networks do sustain broadly multiplex relationships, they are particularly suited for

fostering specialized relationships. The Internet encourages specialized relationships because it supports a market approach to finding social resources through online relationships. With more ease than in almost all situations, people can surf Internet email, newsgroups and search the Web for resources, with reduced search and travel time (Hargittai 2001). Participants can browse through specialized chat groups and discussion lists on the Internet before deciding to join a discussion (Bechar-Israeli 1995). Relationships in these milieus are often narrowly defined, although the inclusion of email addresses in most messages provides the basis for more multiplex relationships to develop (Bastani 2001b).

Personalization need not mean individual isolation. Collaborative filtering is developing, where people contribute to evaluations of books, restaurants, politicians, and movies (Schiesel 2000). People can use their filters and personal agents to find like-minded others and form communities of shared interest. "If you combine virtual community, collaborative filtering, and web-to-mobile phone, you get a scenario in which you always know who in your physical vicinity at the moment shares certain affinities and willingness to be contacted" (Howard Rheingold, personal email, January 11 2000; see also Rheingold 1993, 2000).

IV. VIRTUAL COMMUNITIES

A. Online-Only Communities

The rapid growth of the Internet has led to increased interest in virtual community, communities that are sustained almost entirely through telecommunications and computer-mediated communication. Proliferating in the 1990s, such computer-supported virtual communities have existed since the mid-1970s and have been widespread among scientists since the mid-1980s (Cerf 1993; Sproull and Kiesler 1991; Hiltz and Turoff 1993; Wellman, et al. 1996b).

There is vigorous public debate about the healthiness of such virtual communities. Are they, in fact, communities, supplying true companionship, meaningful support, and solid senses of belonging?

Recent reviews of relevant research show that virtual communities sustain a broad many types of community interactions, provide a range of social support to community members, and are governed by persistent norms of reciprocity and social control. This is not only true for private forms of interpersonal community (Wellman and Gulia 1999a), but for public, civic engagement (Jankowski and Van Selm 2000).

The ties people develop and maintain in cyberspace are much like most of their "real life" community ties: intermittent, specialized and varying in strength (Smith and Kollock 1999; Rheingold 2000). Even in "real life," people must maintain differentiated portfolios of ties to obtain a variety of resources. But in virtual communities, the market metaphor of shopping around for support in specialized ties is even more exaggerated than in real life because the architecture of computer networks promotes market-like situations. For example, decisions about which newsgroups and discussion groups to get involved in can be made from topical menus that list available choices, while requests for help can be broadcast to a wide audience from the comfort of one's home rather than having to ask people one-by-one. Thus while online ties may be specialized, the aggregate sets of ties in virtual communities are apt to provide a wide range of support.

The architecture of the Internet may encourage significant alterations in the size, composition and structure of communities. The Internet's architecture supports the proliferation of community ties, especially non-intimate ties. Discussion groups and newsgroups routinely involve hundreds of members while people easily send hasty notes or long letters to many friends and acquaintances. The distance-free cost structure of the Internet transcends spatial limits even more than the telephone, the car or the airplane because the asynchronous nature of Internet allows people to communicate over different time zones. This could allow latent ties to stay in more active contact until the participants have an opportunity to meet in-person. By supporting such online contact, the Internet may foster in-person meetings between persons who might otherwise forget each other.

With regard to the structure of communities, the Internet is nourishing two contradictory phenomena. Specialized newsgroups, discussion groups, and the like foster multiple memberships in partial communities. Yet the ease of group response and forwarding fosters the folding-in of formerly separate Internet participants into more all-encompassing communities.

Lives may become even more home-centred, if telework proliferates (Salaff, et al. 2000; Wellman, et al. 1996; Michelson, Linden and Wikstrom 1999). Just as was prevalent before the Industrial Revolution, home and workplace are being integrated for teleworkers, although gender roles have not been renegotiated. The domestic environment of teleworkers is becoming a vital home base for neo-Silas Marners sitting in front of their computer screens. Nests are becoming well feathered, and teleworkers will be well situated to provide the eyes on the street that are the foundation of neighbouring (Jacobs 1961). However, they may well be lonely. Teleworkers socialize with far fewer people than other workers: Where average Canadian employees spend 50 percent of their time awake with others, teleworkers spend only 16 percent (Harvey and Taylor 2000).

Yet virtual communities provide possibilities for reversing the trend to less contact with community members because it is so easy to connect online with large numbers of people. For example, I have a personal "friends" list of eighty persons to whom I frequently sends jokes, deep thoughts and reports about life experiences. Such communication typically stimulates ten to twenty direct replies, plus similar messages sent out by others to their online friends. Communities such as online discussion groups usefully stimulate communication in another way. Because all participants can read all messages — just as in a just as when a group talks in a café, open office, or pub — groups of people can talk to each other casually and get to know the friends of their friends. Urbanist William Mitchell proclaims, "The Internet is my café," (Mitchell 1995, p.7).

Thus even as the Internet is accelerating the trend to moving community interaction out of physical public spaces, it is also integrating society. The Internet's architecture supports both weak and strong ties that cut across social milieus, be they interest groups, localities, organizations or nations.

As a result, cyberlinks between people become social links between groups that otherwise would be socially and physically dispersed (Durkheim 1893; Breiger 1974; Wellman 1988).

B.   How Does Virtual Community Affect "Real-Life" Community?

Along with the excitement about the Internet, there are widespread fears that high involvement in virtual community will move people away from involvement in "real-life" communities, which are sustained by face-to-face, telephone and postal contact (e.g., Nie 2001). Instead of the fear discussed above that the Internet is too weak to destroy community, this is a fear that the compelling lure of the Internet, cyberaddiction, will overwhelm face-to-face community. Such fears are misstated in many ways.

1. They treat community as a zero-sum game, assuming that if people spend more time interacting online, they well spend less time interacting in "real life" instead of less time doing something less social.

2. The most common Internet addiction scale merely adapts the gambling addiction scale, substituting "internet" for gambling" in its questions (Greenfield 1999). It does not consider the many pro-social aspects of interaction online or its utility for the marginal or the disabled.

3. Accounts of addiction demonstrate the strength and importance of online ties, and not their weakness. Critics who disparage the authenticity of such strong, online ties are being unwarrantedly and unempirically snobbish in disregarding the seriousness with which Internet participants take their relationships.

4. The excitement about the implications of email for community implicitly sets up a false comparison between email-based virtual communities and face-to-face based real-life communities. The real comparison should not be with the community "gold standard" of supportive, sociable villagers (who are

not too nosy), but with the reality of at-home television nights and physically dispersed friends and relatives (Wellman 1999a).

5. People do not neatly divide their worlds into two discrete sets: community members seen in-person and people contacted online. Many community ties connect off-line as well as online.

6. Although many online relationships remain specialized, the inclusion of email addresses in messages between strangers provides the basis for more multiplex relationships to develop between participants (Rheingold 1993; King 1994; Hiltz and Turoff 1993).

7. The broadening of narrowly-defined relationships to broadly-based, multiplex ones can involve the conversion of relationships that only operate online to ones that include in-person and telephonic encounters. Just as community ties that began face-to-face can be sustained through email, online ties can be reinforced and broadened through face-to-face meetings. Without social and physical cues, people can meet and get to know each other on the Internet and then decide whether to take the relationship into a broader realm.

C. The Continuing Impact of Cyber Space on Community

1. As physical space continues to be important in its own right and as a complement to cyberspace, cyberspace is developing as its own milieu for interaction as well as a complement to physical space. As computing power is increasingly used to prioritize and enhance interactions, the power of person-to-person communication systems is poised to increase, for better or worse. Although physical place continues to be important, cyber space has become cyber place, affecting the ways in which people find and maintain community:

2. In the short term, it has made the household more important, as a base from which to operate one's computer-supported social network. This can lead to a rise in neighbouring, as home-based people take more interest in their immediate surroundings and use the Internet to neighbour without physical intrusion and to arrange visits (Hampton and Wellman 1999).

3. Jointly with the mobile phone, it has emphasized the ascendancy of person-to-person

community, contributing (along with other factors) to the de-emphasis of domestic relations.

4. It has emphasized individual autonomy and agency. Each person is the operator of his/her personal community network (see also Wellman 1999a).

5. It has afforded greater involvement in communities of shared interest. Such communities have probably become more spatially dispersed.

6. It has afforded greater connectivity between communities. The ease of communication to a large number of people facilitates ties that cut across group boundaries.

7. Online relationships and online communities have developed their own strength and dynamics. Participants in online groups have strong interpersonal feelings of belonging, being wanted, obtaining important resources, and having a shared identity. They are in true cyberplaces, and not just cyber-spaces (Rheingold 1993, 2000; Wellman and Gulia 1999a).

8. The cyberspace-physical space comparison is often a false dichotomy. Many ties operate in both cyberspace and physical space, used whatever means of communication is convenient and ap-propriate at the moment.

9. It has increased the importance of network capital in the fund of desirable resources, along with financial capital, human capital and cultural capital. Such network capital is variegated. It consists of knowing how to maintain a networked computer, search for information on the Internet and use the knowledge gained, create and sustain online relationships, and use these relationships to obtain needed resources, including indirect links to friends of friends.

This is a time for individuals and their networks, and not for groups or even households. People spend their network capital on specialized support from individual community members and not from "the community" (Wellman and Frank 2001). The all-embracing collectivity (Parsons 1951; Braga and Menosky 1999) has become a fragmented, personalized network. Autonomy, opportunity, and uncer-tainty rule today's community game. "Each person sups from many tables, but experiences only a sin-gle banquet of life" (Rees-Nishio 2001).

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