

"R U out there?"

On Personal Communities in Cyberspace

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Abstract

The development of information technology and telecommunication is creating new social structures in cyberspace, so called virtual communities. These communities are often regarded as constituted of a group of people joined together by a shared interest using information technology as a mean. It might be that the members of a community do all their communication through electronic media and never meet in real life or that the community members do not belong to any specific location. Virtual communities have also so far been regarded as something that has little or no correspondence to real life situations but as more people enters cyberspace the boundaries between virtual life and real life are becoming indistinct and blurred. It seems that people, in addition to creating new relationships based on shared interests, regard cyberspace as a place in which to enhance already existing relationships with friends, kin and work mates. Using the concept of personal community the purpose of this paper is to give one illustration of how individuals can develop, maintain and enhance already existing social relationships through cyberspace. This individual usage implies a continuing trend of privatizing third places when more human activities are moved into cyberspace. It also implies that the development of personal communities in cyberspace will have impacts on the notion of community, virtual as well as real. Since personal communities are likely to grow there is a need for more detailed studies of personal communities, but also studies of how individuals are using different forms of information technology to become linked to different societal activities.

The development and use of Internet and telecommunication networks has created opportunities for individuals and groups to generate new social terrains. One concept often used to focus the new social structures and personal relationships emerging in cyberspace, is Virtual Communities. A virtual community is often regarded as a new form of community only existing in Cyberspace and solely founded upon the technological infrastructure provided by information technology.

Since cyberspace are growing and effects more people every day the development of virtual communities are by many regarded as very important (Jones 1995, Mitchell 1995, Stolterman 1996). They mean that virtual communities must be regarded as true parts of our society and as such also part of the ongoing change and development of society at large. Stolterman (1996) means that there is a need of understanding how the development of virtual communities are affecting traditional societies, our ways of perceiving communities and other societal structures

Virtual communities are often regarded as "... a group of people who may or may not meet one another face to face, and who exchange words and ideas through the mediation of computer bulletin boards and networks." (Rheingold, 1994:1). However, it seems that people, in addition to creating new relationships or communities based on shared interests, regard cyberspace as a place in which to enhance already existing relationships with friends, kin and work mates. This usage implies that people also are developing a sense of community formed by their interpersonal life.

In Wellman et al. (1988) an understanding of community without a base in solidarity or a group interest is elaborated. They mean that it is possible to develop an understanding of community life based on individual's personal communities. In such a community the individual is the node and center of the community, i.e. the constituting property of that community.

Using the concept of personal communities the purpose of this paper is to provide one illustration of how individuals can expand, maintain and develop social relationships through cyberspace, which suggests a complement to the understanding of virtual communities as group communities. The paper is based on an explorative study of personal communities in cyberspace where one individual's perception of computers and computer usage provides the base for further research questions.

The outline of this paper is as follows: First I present one example of individual usage of e-mail and Internet that are relevant to the development of social structures in cyberspace. Then I discuss the relation between virtual and personal communities and why the concept of personal communities is relevant for focusing the new social structures emerging in cyberspace. In section four I relate the individual usage illustrated in section one with the notion of virtual and personal communities. The paper is concluded with some reflections and implications for further research on virtual communities.

Ten years ago I spent one year as an exchange student in the United States. During that year I lived with and was part of an American family. Although I developed a very strong relationship with the family during that year, I have only had occasional contact with the family members, since I left.

One year ago I received an electronic mail from the daughter of this American family, Andrea, telling me that she just logged on to America On-Line. Since then I have received approximately 60 mails from her. These messages contain personal matters and information concerning Andrea and her family, lots of jokes, and different matters that has upset or amused her in society in general. Most of the e-mail she is sending to me are also addressed to a number of different people, most of whom I don't know. She estimates that she corresponds to sixteen different people on a regular basis, all in different age, sex and relation to her.

In November 1996 Andrea and I had the opportunity to meet and I interviewed her about her usage and perception of Internet and e-mail. The interview took about two hours and was recorded on tape. This section is primarily based on that interview, but is complemented with some of the e-mail that I have received from her. The transcript of the interview is, together with the e-mail from Andrea, documented in Croon (1996).

2.1 Some characteristics of Andrea's e-mail and Internet usage

Andrea's biggest reason for having access to Internet is for e-mail. Although she uses Internet for information retrieval and subscribes to distributions lists for music bands that she's interested in, the major usage of her Internet account is e-mail. She gets approximately thirty mails each week and she spends between two to four hours every day on her computer.

"... there are two or three people that I write to almost everyday, or almost every other day. And I have a feeling that those people might have one or two people that they write to as much as they write to me, but probably not like a bunch a people. And then is that bunch of people that I write to pretty often but not as often as those two or three people." (Interview).

She routinely corresponds with approximately sixteen different people and tries to write at least one individual letter to everybody every two weeks. Mostly she keeps all messages for one month and then tries to delete most of them. She is only keeping the mail that contains some major information or some very funny jokes.

"... there actually is an address book where you could create lists. But I don't like that, so instead I have each person in individually, so I click on each one individually. Because otherwise you have to like pick the entire list every time... I only have like sixteen different people listed to, so it's not a big deal to go through them each time." (Interview).

Andrea uses e-mail mostly to forward jokes and other funny things that she receives from others. But she also uses e-mail for personal letters containing information about her and her family's life. The exchange of jokes is mostly between Andrea and two to three of her friends. This exchanges is made on a regular basis at least twice a week. For the most part Andrea then forwards these jokes to a number of other people that she knows.

If there was no ability for her to use e-mail to correspond with her friends, work mates and kin she would probably use the phone, but she doesn't believe that it would be as often and for the same reason as she is now using e-mail. She only corresponds to people that she already have met and are acquainted to and she is not interested in meeting new friends or developing new relationships on the Net. She believes the ambiguity of identity on Net to be disturbing and uncomfortable and has therefore chosen not to get involved in IRCs, MUDs, News groups or discussion lists, so far.

"I have been really just myself, do you know what I mean, like I haven't gone in and really talked to other people. Unless there was some kind of question I wanted to ask. I would go in to the technical support chat room. But for the most part I really haven't gone on line to meet new people. To a certain extent I'm afraid, just because you don't know the psycho that's on the other end. You know, who say they're one thing but they are really just typing.... I feel much more comfortable with communicating with people I've met..." (Interview).

Most of the e-mails that Andrea sends and receive are not addressed to one person, but to a number of persons, and most of them don't know each other. This is also the way that other people interact and corresponds with Andrea, and it therefore seems to have developed to be an ordinary way of keeping in touch with each other. Andrea feels obligated to answer the e-mail that she receives and becomes very uncomfortable when she's not able to read e-mail on a regular basis. She believes that since she has an e-mail account she must also take the responsibility to read and answer the mails that she's receiving. That is also something that she's expecting from others.

2.2 Relationships that are maintained through cyberspace

Right now Andrea corresponds to almost all the people who's addresses she has, with a few exceptions; for instance, people who has not returned or answered her mail is no longer part of her list of people that she corresponds with. Approximately seven of the people on her e-mail list she also meet regularly, face-to-face, in other social settings. Some of them are really close friends. Others are more casual friends. In addition these friends she also keep in touch with a number of work mates and kin, that she wouldn't have been in touch with without the possibility of e-mail. Approximately three of these relationships have derived from different jobs she has been involved in and four are relatives to her.

The majority of friends that she corresponds with she also meet in other social settings. The interaction on the Net is, according to Andrea, a complement to meeting face-to-face or keeping in touch over the phone. The interactions with these friends

mostly consist of jokes and/or short matters, ideas or decisions for meeting in real life. With most of her work mates the relationship would, according to Andrea, not have been developed at all if the interaction through cyberspace were not available. Now, because of the possibility to communication by e-mail, Andrea has developed several intimate relationships with work mates, in which details of their personal life are shared.

"This is somebody that I worked with for a short time, we got along pretty well in the office, but it was a very like, you know, kind of distanced relationship. And when she left she gave me her address, whatever, and now we write two or three times a week and I feel really close to her." (Interview).

"... here is really good example of somebody that I worked with once and I thought was really cool and I really liked her, but I don't think I would have ever kept in contact with her, had I not found out that she had an e-mail account.... And now I can't wait to see her again, and I feel really close to her because we've talked so much... And there's another woman which are the same way, you know, had I not had the e-mail, we would had said goodbye and that would have been it. And next time we would have worked together it would have been cool, but we would never have been as close as we are now, I know intimate details of her life and stuff..." (Interview).

There are also a number of kin and friends of the family that she corresponds to. Andrea says that these relationships have mostly been enhanced because of the frequency of interactions. This has thus in turn affected Andrea's feeling of closeness and awareness of these relationships.

"A perfect example is one of my parents best friends daughter who is born on the day before me ... We've been pretty good friends but it has been kind of casual acquaintances, but I recently found out that she's got an e-mail account. And now I write to her at least once a week, and it's cool cause it's the kind of relationship where even though I will for the rest of my life know who she is and we'll talk every time we ever see each other I wouldn't have been keeping the contact with her, and now I do just because I found out that she has an e-mail." (Interview).

2.3 *Impact on Andrea's life*

For Andrea her computer and access to Internet has become a very important part of her life. When reflecting on the impacts on her computer usage she says:

"... after having it (the computer), it has definitely come to a point were I can't live without it, you know..... I spend several hours everyday on my computer, you know.... so as far as my own personal computer I think I would go insane without it. It's weird to me that a year ago I didn't have one, because right now I have no idea how I could live without it..." (Interview).

She feels that her computer usage has become a major activity in her life, an activity that is adding values to her life. She believes her computer and her Internet account to be an outlet that is very different and unique from other social settings and means of communication. For Andrea this outlet is helping her in becoming a funnier person both on-line and in real life. But also a possibility for Andrea to reach and stay in touch with a variety of persons that she has already met before.

"I am not sure that I had an outlet like this actually.... because.. this is going to sound really stupid....but I think that I've become a funnier person.... Especially seeing them (the jokes) in writings like that, then, later, I am able to tell it. Then I got so much joy out of being able to tell it that I remember more of the one's that are funny so that I can continue to tell.... I've never been a joke teller, and now it is like I have bunches of jokes to be able to tell people and I think that is funny.... It makes me happy that I have this outlet." (Interview).

She is very glad about the opportunities to interact and communicate with a broader range of people. She believes that she also have the opportunity to be in more frequent contact with people than she would have otherwise and she feels more part of the world than before.

"The good part is that I am now sharing things with a person that I normally wouldn't be sharing those concerns with. It's the bigger global thing.... I just reach a broader range of people. Of this list of people at least two of them are people that I would call often if there wasn't the Internet, like I would still keep in contact with them, but it wouldn't be anywhere near as often as I do because of the Internet." (Interview).

She also believes that the e-mail correspondence has enhanced some of her relationships and that several of her relationships with people would not exist if e-mail was not available. The relationships that are enhanced are both with her kin, friends and work mates, in different ways and frequency. She also means that, because of the frequency of interaction, the people that she corresponds to are affecting her daily life. With her relationships in cyberspace it appears that social proximity is more important than physical closeness.

"I think they do in a sense, affect my day to day life, because of the fact that it's something that I do so often. Even though they live far away their messages is something that I look forward to and whatever. It is nothing really that makes me feel that I have to keep in touch or whatever, it's something that I look forward to do..." (Interview).

3 Understanding virtual communities

The previous illustration is one example of new social structures emerging in cyberspace that so far has received little attention from researchers with interest in virtual communities. This might be derived from the common understanding that has developed around the concept of virtual communities.

3.1 *Virtual communities as group communities*

Although there is no exact definition on what constitutes a virtual community, it is relatively common to regard a virtual community as a social entity consisting of a group of people who relate to one another based on shared interest, where some of the traditional properties of a community is no longer a part of the "real" world, but part of what is known as "cyberspace". Another similar understanding of virtual communities is as a group of people based on a shared interest using information technology as mean. The participants of virtual communities are like members of a village or a densely knit urban neighborhood linked together by a common interest or a common place. This notion of virtual communities has also, according to Valtersson (1996), led members of real world cities, villages and organizations to create community networks and virtual organizations where members in certain villages or organizations can get information and services through Internet. Rheingold (1994), defines virtual communities as:

"Social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace." (Rheingold, 1994, p. 5)

This definition, among others, have also led many to only regard public social structures in cyberspace to be related to virtual communities. Although the webs of personal relationships also can take form in more private spheres of cyberspace, this has not so far been considered as an expression of a virtual community.

So far many researchers in this area also tend to regard virtual communities as an isolated phenomena without "relation" to the real world. There are a number of studies of how electronic communication might change social structures of existing organizations (for instance, Garstens 1996, Edenius 1996 and Sproull & Kieser 1996). In these cases research is concerned with communication in organizations in which order has been imposed by an external force that offers little insight into the emergence of new social structures created by information technology. Others are assuming that the boundaries of computer networks are equal to the social networks, and that electronic mail, bulletin board systems, news groups etc. substitutes and/or constrains parts or all of human companionships, social support, information and sense of belonging

Besides the illustration of Andrea's usage in the previous section there are, however, others indicating that people do not draw such a sharp boundary between relationships in cyberspace and those in real life (Turkle, 1996 and Parks & Floyd 1996). This has caused an increased interest of understanding how interactions on the Net fit together with and

affects other aspects of peoples' lives. For instance, Parks & Floyd (1996), Schuler (1996), Stefnik (1996), Stone (1991), Turkle (1995) Turkle (1996), and Wellman & Guila (1997) are focusing the relation between virtual community and real life.

Wellman & Guila (1997) mean that there are social structures emerging in cyberspace, which better can be understood by focusing on the individual instead of a group or a specific interest. They mean that the individual usage of e-mail facilities for the frequent exchange of jokes, deep thoughts and reports about life experiences is expressions of community life that can be captured by the concept of personal community.

"The net is only one of many ways in which the same people may interact. It is not a separate reality. People bring to their on-line interactions such baggage as their gender, stage in the life-cycle, cultural milieu, socio-economic status, and off-line connections with others." (Wellman & Guila, 1997)

3.2 Personal communities

Wellman et al. (1988) relate the concept of community to the development of technology, such as cars, planes and phones, which has made it possible to maintain relationships over long distances. In their studies of community life in East York, Toronto, they first used public places as departure for their study, as often done in sociological studies. They found that the streets and public places of East York were very empty and gave little evidence of community life. Although they didn't find community life in the public places of East York, the residents were heavily involved in community networks. According to Wellman et al. (ibid), East Yorkers were finding community in ties not in public places.

In order to understand the empirical evidence of community life in East York one of their solutions was to treat East Yorker's networks as personal communities. In doing so they looked for the social essence in neither locality nor solidarity, but in the ways in which networks of informal relations fit persons and households into social structures. They found that a personal community is made up of an individual's network of informal ties, from a half-dozen intimate to hundreds of weaker ties, where the social structures are more private and dispersed.

According to Wellman et al. (ibid), personal communities seldom have well-defined boundaries since there is no gate to divide members from non-members. In personal communities friends come and go, their importance varying by the hour, day, and year. Wellman et al. (ibid.) were, however, able to distinguish three different kinds of community ties, which had some durability and stability; 1.) Significant ties, that is relationships actively thought about and maintained, 2.) Intimate ties, that is all significant ties that East Yorkers identified as socially close and 3.) Routine ties, all significant ties with whom East Yorkers were in contact with at least three times a week, in person, by telephone, letters etc. Most of the East Yorkers had at least 11 ties in their network, among them four ties were socially close (intimate) and three ties contained

persons that were routinely contacted. Most of the intimate ties had endured for 19 years or more and the routine ties had usually lasted for more than 8 years.

Wellman et al. (ibid) in particular focused intimate and routine ties and were able to identify six different roles of their network members: Immediate kin, extended kin, neighbor, friend, co-worker and organizational tie. In their study they found that kin and neighbor made up the majority of ties in a personal community. But also that, except for kin and small clusters of friends, most members of a person's community network did not really know each other. Friends were present to a significant degree in almost all networks, but almost all networks contained a variety of friends, kin, neighbors, co-workers and organizational ties. Most East Yorkers had only a few ties with whom they were routinely in touch, by telephone or face-to-face. In their day-to-day lives, most dealt only with three or fewer ties, only one of whom were a socially close (intimate), and had less frequent contact with other network members. East Yorkers tended to use telephone more often than face-to-face encounters although they spent most time interacting face-to-face.

According to Wellman et al. (ibid.) the activities between ties in a personal community are quite hidden from public view. They found that the great majority of network members met inside each other's home and interacted much less often in contexts that would expand their networks and add new ties to their network. Out of eight studied contexts, the East Yorker only interacted in three to four types of contexts, where telephone and home almost always were two of these contexts. Few of the studied personal communities contained ties in which network members interacted in many contexts. Rather than dealing with the same persons in a variety of contexts, East Yorkers tended to move from network member to network member as they moved from context to context.

4 Andrea's personal community in cyberspace

Andrea's interactions with her work mates, friends and kin, using information technology as a mean, include most of what is considered to be major activities in virtual communities. Andrea's personal relationships are, as Rheingold (1994) describes, enhanced by the use of words on a computer screen to exchange pleasantries and argue, exchange knowledge, share emotional support, etc. However, in Andrea's case, these activities are quite hidden from the public view and only involve people that Andrea has met in other social settings prior to cyberspace. To capture these activities and social structures that are emerging in cyberspace due to Andrea's usage of e-mail and Internet a focus on her personal community is necessary. In this section I will elaborate Andrea's usage in order to highlight some specific aspects of her personal community in cyberspace.

4.1 Resources distributed through personal communities

Andrea is on a regular and frequent basis interacting with 16 different people in cyberspace. Among the people that she is corresponding with it is possible to distinguish

both routine and intimate ties and at least three roles: work mates, kin and friends. According to Andrea, she would not maintain these ties as frequent or at all if she did not have the opportunity to reach these people through cyberspace. Andrea has also declared that the most of the people that she is interacting with does not know each other except for a few relatives and friends. Although they don't know each other, Andrea for the most parts sends the same messages to all of her ties (jokes, short letters about what she's doing etc.). However she does on a regular basis complement these broadcasts with an individual letter to each person on her list. Most of the times the people that she correspond with only writes back to Andrea personally.

Andrea believes that she would still be in touch with most of her friends and kin if e-mail were not available. She mean that she would still met them but it would probably not be as often as it is now possible through cyberspace. But the ties with her work mates and some of her more causal and distant friends she would not have developed a relationship with at all if she didn't have access to Internet. This suggests that one impact of this usage is that the number of ties attached to Andrea's personal community has increased and that it is possible for Andrea to maintain a larger amount of personal relationships through cyberspace. But also, that the relationships with her intimate ties are enhanced by the possibility to interact through cyberspace.

Wellman et al. (1988) focuses on three resources distributed among the ties in East Yorker's personal communities. These resources are essential in a personal community and also what most people expected to get from their ties within their network. First they found that the network provided a sense of being wanted, and belonging, and readily available companionship. Experiencing the pleasure of keeping in touch, discussing interests and ideas etc. is also the most important argument that Andrea has in using e-mail in her daily life. The e-mail interactions with her work mates, friends and kin provides her with a sense of belonging and readily available companionship and is thus a very important part of her life.

Second Wellman et al. (ibid) mean that the ties provide many different kind of aid: emotional aid and small services that help people to cope with the stresses and strains of their current structural locations. This is also something that Andrea said she was getting from the interaction through the Net, especially, in her relation to her grandfather. But also, with respect to some of other ties, she mentioned feeling somewhat guilty and ashamed once realizing that her interaction with her grandfather for a long period only dealt with her wanting to use his accommodation in Hawaii for a trip with her friends. The aids that she receives are both small material services, money etceteras and, advice in different decisions on a more emotional level.

Thirdly Wellman et al. (ibid) mean that the outward linkage of the network provides people with ladders and levers to change their life situation. That is, as a ladder to a new occupation, new interests, or levers to influence the local politics in certain directions. By focusing on Andrea's personal community in cyberspace it is obvious that the number of ties in her personal community have increased which also implies that the resources that are distributed through the community are likely to increase. Therefore this usage might

provide an increased feeling of belonging with other people. A feeling of belonging with a larger amount of people that might help her with small services and advice and people that can help her improve and change her life.

4.2 Cyberspace a place for maintaining ties in personal communities

Another feature of Andrea's usage is the fact that she is using e-mail and the Net mostly for developing and enhancing already existing relationships. Although some are very brief, she is very resolute that she is not interested in meeting new people or creating new relationships in different news groups, IRCs, MUDs etc. Instead she is using cyberspace to keep in touch with her friends, work mates and kin on a regular basis and with an increased frequency than before. For Andrea, cyberspace has become a place where she reach a broad range of familiar friends, tell jokes, discuss and share problems of her everyday life—a place where social proximity appear to be a more important characteristic than physical closeness.

Stone (1991), among others, has found that it is relatively common that members of virtual communities act as if the members of a virtual community met in a physical public place. The number of times members refer to a conference system as an architectural place is overwhelmingly high in proportion to those who do not. Statements like "This is a nice place to get together" or "This is a convenient place to meet" are, according to Stone, very common. This sense of a place is also, according to Schuler (1996), one very important characteristic of a community, since he regards communities to be the physical, mental and/or emotional place where people live.

The importance of different places to sustain community life is also often focused and discussed by sociologists and anthropologists. One example is Oldenburg (1989) who believes that there are three vital places in every day life and social interaction; the first place is home, the second is work and the third place has traditionally been coffee shops, bars, restaurants etc. The best kinds of third places are, according to Oldenburg, those that people can visit any time of the day or evening with assurance that acquaintances will be there. Third places have fluidity in arrivals and departures and an inconsistency of membership at any given hour of the day. Correspondingly, the activity that goes on in third places is largely unplanned, unscheduled, unorganized and unstructured. Oldenburg means that the most important activity in a third place is conversation.

"Nothing more clearly indicates a third place than that the talk there is good; that it is lively, scintillating, colorful, and engaging. The joys of association in third places may initially be marked by smiles and twinkling eyes, by hand-shaking and back-slapping, but they proceed and are maintained in pleasurable and entertaining conversation." (Oldenburg, 1989, p. 26)

Oldenburg, and others, are concerned that people in the western world are spending less time in a public third places. Instead, invitations, private get-togethers and close telephone chats are becoming the norm. *This dispersion and privatization of third places* imposes that people, instead of dropping in at cafés and pubs waiting for people they

know to drop by, must actively get in touch with community members to keep in contact. Since Oldenburg holds third places to be vital for community life he fears that a community that moves in-doors to private homes will probably result in a lower volume of contact between community members.

Virtual communities have by some been regarded as a new kind of third place, where people can gather and develop a sense of belonging that could increase the volume of contact between people (Kling 1995, Schuler 1996, Smith 1994, Turkle 1996 and Valtersson 1996). This has created an understanding of virtual communities as places where people go to find companionship and aid with people with similar interest. The development of virtual communities is also often regarded as a mean for people to find organized ways of getting in touch and developing relations with other humans.

"The main thing that The Well provides is a computer conferencing environment. This is a place for people to meet each other and exchange ideas and thoughts in a conversational fashion." (Smith, 1994, p. 18)

Andrea's usage is very similar to what others have been describing in more organized virtual communities such as The Well, Lambda Moo, Habitat etc. (Kollock & Smith 1996), Parks & Floyd 1996 and Rheingold 1994). And her usage does also fill similar function as what have been stated by members of these communities, e.g. as the local bar, the bistro or the coffee shop, where members of a community can gather for easy company, conversation, and a sense of belonging. But at the same time Andrea's usage is quite different mostly due to the fact that she is only corresponding to people that she has already met before in real life and interactions are more private than the conversations and interactions performed in other virtual communities. For the most part Andrea is also the major initiator of the activities and interactions that takes place within her personal community.

It is, therefore, possible to regard her usage as a way of creating a third place for maintaining personal relationships similar to other virtual communities but where some of the limitation and characteristics of virtual interaction develops a different meaning. Since she already knows the people that she corresponds to Andrea can make use her previous understanding and "knowing" of that person when interacting on the net. Several of the people that she corresponds with are involved in quite different activities than herself the asynchrony in the interaction is quite necessary in order to be able to stay in contact. E-mail has therefore made it possible to facilitate interactions in between opportunities to meet in other social settings. And the Net has, for Andrea, developed to be a very important place in order to maintain, enhance and expand ties within her personal community that have not been available before.

Andrea's usage of e-mail and Internet is one example of social structures emerging in cyberspace that has so far not received so much attention. This lack of attention is mostly due to the fact that research in virtual communities has regarded virtual communities as consisting of a group of people based on a shared interest with parts or all activities in cyberspace. The illustration provided in this paper suggests that there is need of rethinking some of the constituting assumptions regarding virtual communities. For instance, that an understanding of virtual communities also must be based on the individual relationships that are being formed in cyberspace. By recognizing personal communities in cyberspace it is possible to study how interactions on the net fit with other aspects of peoples lives, but also to recognize the ways in which virtual communities are real parts of society. As more people enters cyberspace, this individual usage of information technology is likely to increase, i.e. by people that have occasionally met to keep in touch and develop relationships, or as a way for relatives and friends to enhance relationships when there is not a possibility to meet face-to-face. Therefore I think that personal communities are an important form of community life in cyberspace that needs further investigation and research.

Andrea's usage of e-mail and Internet also implies that is possible to regard virtual communities as place where people can maintain, develop and enhance ties within their personal community. If personal communities in cyberspace will continue to grow, as I assume, the trend of privatizing third places is also likely to continue. In order to better capture the impacts of this privatization and dispersion of third places more research of the individual usage and perception of information technology is needed. For instance, in depth studies of what kind of technologies that is being used, for what purposes, to what extent etc. I hold the concept of personal communities to be very valuable in order to conceptualize the individual usage of different modalities of information technology and its relation to societal structures.

The extent to which Andrea uses computer mediated interaction in the conduct of her everyday affairs and activities suggest its' vital importance in forming and maintaining relationships and exchanging information and ideas. But this usage also is related to the forming of our understanding of the notion of community—virtual as well as real. The way that Andrea describes her usage of e-mail and Internet serves in my view as a good illustration of how information technology might change the notion of virtual community based on a shared interest and create new forms of access and association. The usage of information technology illustrated in this paper is one example of an unexplored form of virtual community, based on the individual, which might have major impact on how our future society will be formed. But by recognizing how individuals are using information technology to become linked to different parts of the community it is obvious that not only virtual communities but also real world communities must be regarded as something not only defined in terms of a shared place or a shared interest with a particular group, but also in terms of accessibility with a variety of friends, work-mates and kin.

Acknowledgements

This paper has been written within the project: Virtual Communities, Department of Informatics, Umeå University, which is funded by KFB, (The Swedish Transport and Communications Research Board).

I would like to thank Jonny Holmström, Torbjörn Nordström, Erik Stolterman, Mikael Söderström and Per-Olof Ågren for their valuable comments and suggestions that have helped me to improve earlier versions of this article.

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