

Urban and Population Geography 216, 2010

Essay

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Social networks exist in many forms and sizes from global online websites such as [Facebook](#), to local sports clubs. As the human race has moved forward and as technology has developed, questions have been raised as to whether physical distance has mattered since the 1960's, where relationships no longer involve just face to face contact (Mok and Wellman, 2007, p. 431). There was once a time when communication was all about meeting people face to [face](#), when there were very few modes of transport available and even fewer ways to communicate instantly with friends and relatives who lived a great deal away distance wise.

Communication technology has progressed substantially through the twentieth century. The development of transport modes such as air travel and the development of computer technologies such as electronic messaging (e-mail) and the [internet](#), have all allowed communication between individuals to happen very rapidly. There are questions as to whether physical distance actually matters with regards to the frequency of social interaction and the strength of a relationship; since many types of relationships nowadays no longer involve, and don't necessarily rely on, just face to face contact.

In this essay I will discuss the effects of physical distance on social networks and social interaction based on three viewpoints. Firstly, based on what literature says about the topic, secondly, based on a survey undertaken by students in Geography 216 at Victoria University, and thirdly, I will talk about the effects that physical distance has on my own social network and frequency of contact with friends and relatives. I will argue that even though technology has developed, physical distance still plays an important role in the frequency of social interaction and the strength of a relationship.

Social networks and groups exist in many forms, from a sports club environment to on-line social networking sites. Types of social networks can range from looseknit, where few members of the network know each other independently, to closeknit, where most people know each other (Knox and Pinch, 2006, p. 159). Further evidence of this concept is illustrated in Figure 1, which classifies social situations based on complexity. "A" is an example of a "traditional community" (Knox and Pinch, 2006, p.160) and involves complex social relationships where individuals can be linked to multiple social groups; such as being a family member, neighbour, workmate and friend. "B" is a representation of a singular relationship where only one person knows the others.

		Structure	
Plexity	Dense	Looseknit	Single
Multiplex	A		
Simplex			
Uniplex			B

Figure 1. A typology of social situations.

Source: Bell and Newby, 1976, in Knox and Pinch,

One benefit of social interaction is that it can occur through not only friends but also through friends of friends. Social environments also provide the opportunity for two strangers to get to know one another. The size of an individual's social network depends on the individual and an individual has the ability to belong to many social networks where each can have a different purpose. Some networks involve frequent face to face contact such as a university class, while others like website groups may not involve much physical contact at all. In other words, some networks are controlled by physical distance and space while some are not.

The role of physical distance in social interaction can vary. One way that face to face contact is maintained is by the types of social trips that take place. These trips depend on many variables including: age, occupation, sex and ethnicity. A study in Lansing, Michigan allowed some conclusions on social trips to be made (Smith et al., 1954 in Wheeler and Stutz, 1971, p. 377). The frequency of social trips is at its highest in the early adulthood ages up to the age of 21. There are also increases in frequency for the 60-70-year-old age group; the reason being that this group represents retired people who have high amounts of leisure time. Physical distance may be a problem for some groups of people, such as working parents, who might not have the time to make social trips. So in this case, physical distance matters with regards to the frequency of social interaction and differences between age groups.

Geography plays an important role in the functioning of social networks. Physical distance affects the probability of friendship, face to face contact and telephone contact. Research has shown that the further away socially active network members live the less they communicate, not only face to face but also by telephone (Wellman 1979, in Mok and Wellman, 2007, p. 433). This is backed up by Figures 2 and 3 which show that the frequency of face to face contact and telephone contact are both connected to each other. Less contact with people living further away is an accepted generalisation and geography comes into effect when costs are involved. Whether it is travelling by aeroplane to another continent or making a telephone call across the globe, greater distance means greater financial costs.

Social networks can be spatially defined within communities. In Berkman and Clarke (2003), Wellman states that communities must have "networks of interpersonal ties providing support and sociability" and "residence in a common locality" (p. 290). In a community, social networks help to shape behaviour and provide people with opportunities for interaction and involvement. Research into social networks has focused on how similarities in background with regards to religion, occupation, ethnicity, age and gender, shape network structure and patterns of support. If more social networks are available within a community there is a greater opportunity for social ties to be created, and this helps to maintain a strong sense of community.

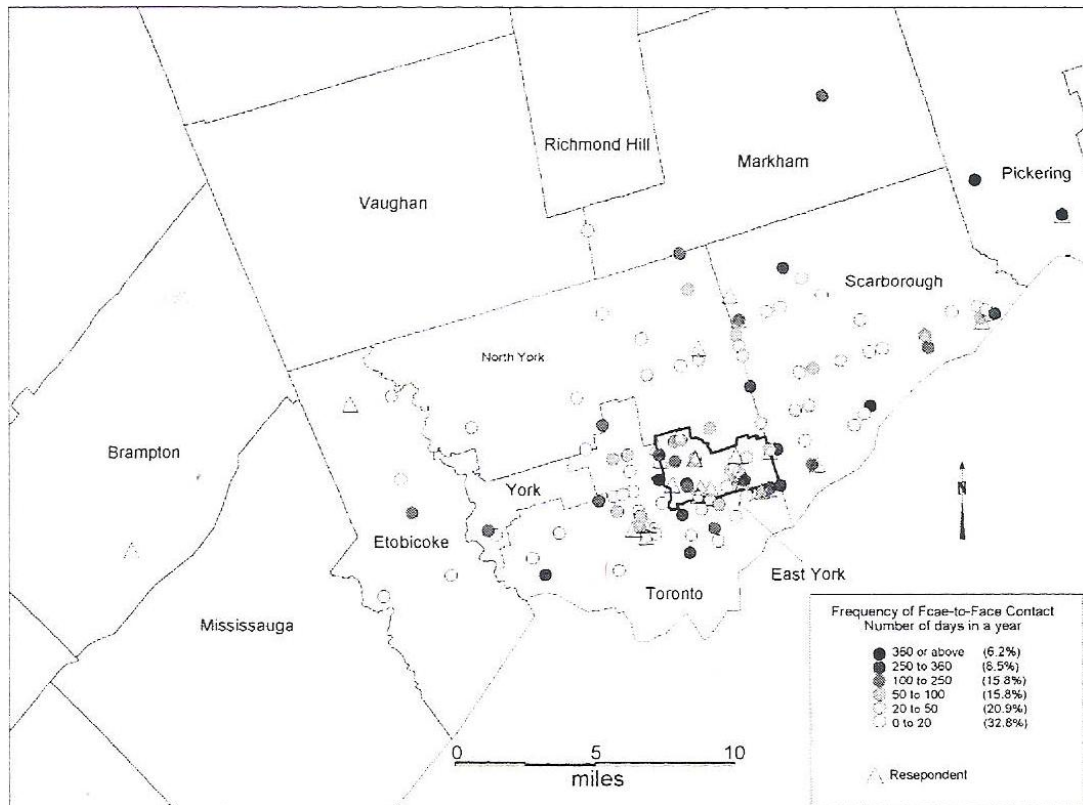


Figure 2. Spatial Pattern of frequency of face to face contact in Toronto, Canada, 2007.

Source: Mok and Wellman, 2007, p. 440

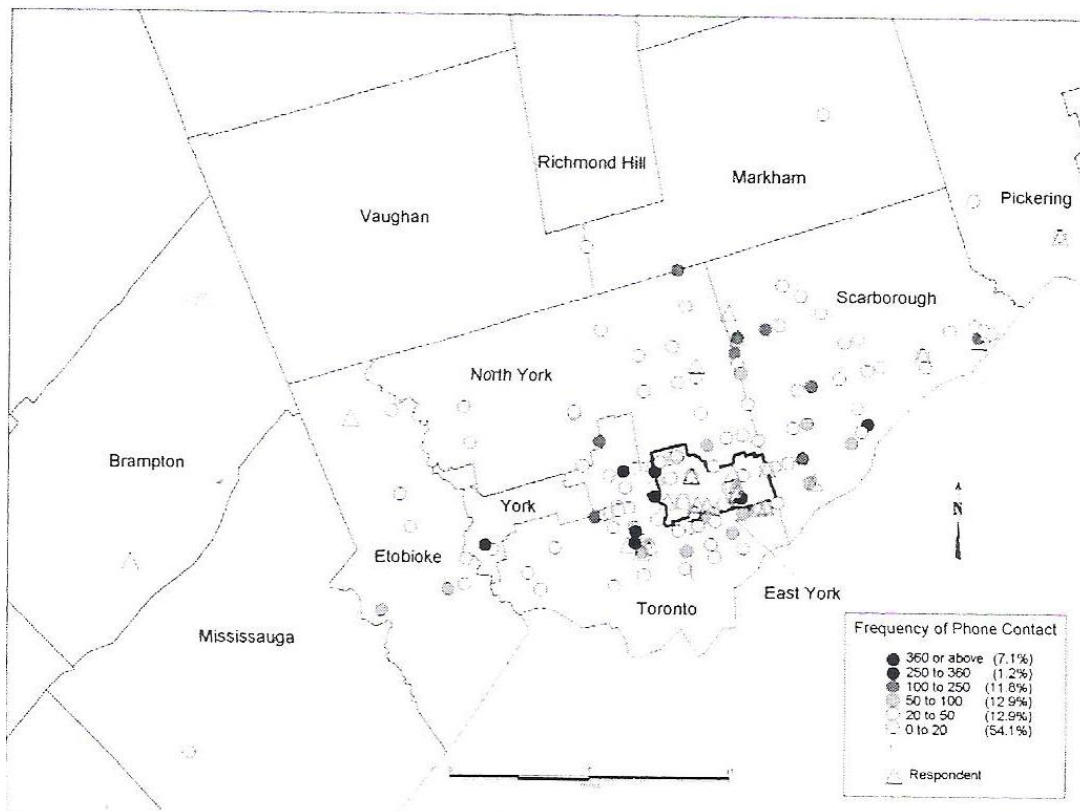
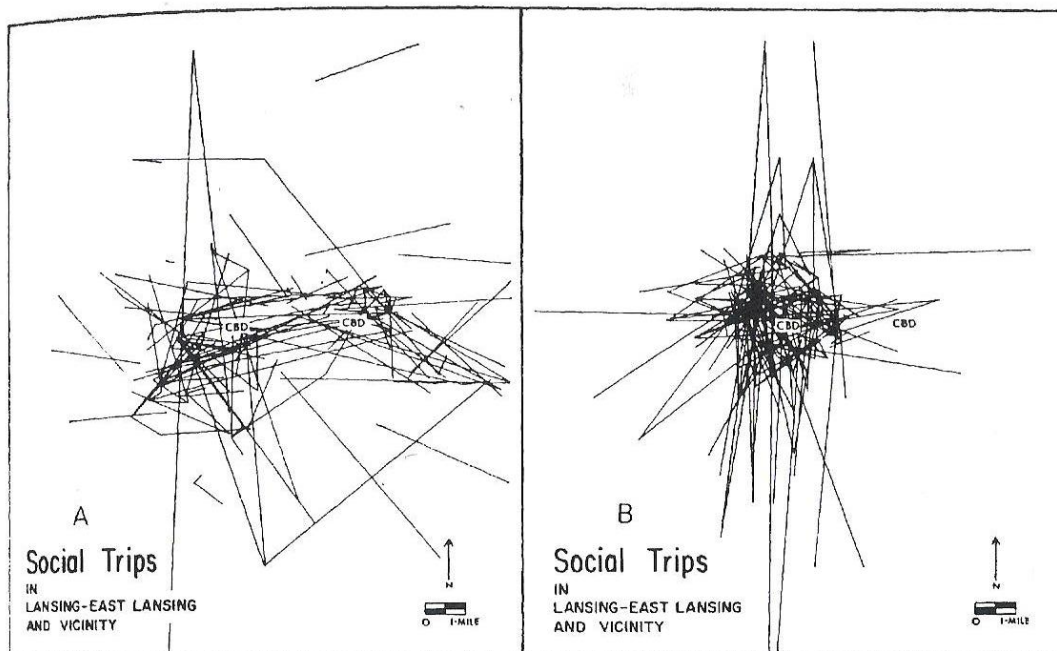


Figure 3. Spatial Pattern of frequency of telephone contact in Toronto, Canada, 2007.

Source: Mok and Wellman, 2007, p. 448.

Social distance also plays an important part in the frequency of communication. A social distance scale was developed by Bogardus in 1962 based on a ranking of social relationships. The further up the scale the closer the social distance between people. The closest social distance is identified as “close kinship by marriage” (Knox and Pinch, 2006, p. 165), followed by, in descending order: friendship, a neighbour on the same street, work colleagues, all the way down to the being excluded from a country. What this scale suggests is that there is more chance of face to face contact with less social distance, and that physical distance is also involved.

An individual’s choice to who they communicate with can be influenced by socio-economic status. According to Wheeler and Stutz (1971), individuals prefer to interact with those of a similar status (p. 373). Also, individuals of a similar socio-economic status tend to live closer together physically; therefore they are likely to communicate face to face more often. Income is an indicator of socio-economic status and this can influence the frequency of social trips made by people in a household. Figures 4 and 5 show that social trips by households of greater than average income tend to be longer and less clustered than social trips by lower income households, which show a pattern of concentrated, short distance trips (Wheeler and Stutz, 1971, p. 380). Basically, the high-income households have the income to make longer trips. Lower income household residents are also more likely to walk to engage in face to face socialising.



From left: Figure 4. and Figure 5. Social trip lines for households with greater than average median income (A) and with less than average income (B) in Lansing, Michigan (date unknown).

Source: Wheeler and Stutz, 1971, p.381

The main argument put forward by many geographers is that, as time has progressed, physical distance is playing a less important part in social interaction and that people can develop strong social ties without meeting face to face. The development of technology is widely regarded as being responsible for this. The internet is accepted as the main culprit in the decreasing importance of physical distance, but distance did start “dying” before the internet. Since the 1960’s, more modes of transport have been developed and these technologies lowered the cost of distance and helped people travel beyond walking distance (Mok and Wellman, 2007, p. 431). Quite simply, travel was cheaper and quicker.

As telephone communication developed, questions were being asked if this was replacing face to face contact. Figures 2 and 3 show that phone contact is less reliant on distance than face to face contact. The general pattern of face to face contact between individuals is more clustered than that of telephone contact. A study by Mok and Wellman (2007) shows a marked decline in the frequency of face to face contact at about 50 miles (p. 452). The impact of distance on telephone contact occurs mainly at longer distances of about 100 miles, where calling charges come into effect. The study also shows that phone contact declines at a slower rate than face to face contact.

The development of cell phone technology has had a similar effect. “They can enhance social relationships by allowing more frequent contact” (Hanson, 2007, p. 79). Cell phones give the sense of connection, but they are still a substitute for personal face to face communication. Hanson (2007) goes on to explain that part of human happiness is having physical and emotional contact (pp. 79-80), and that a “machine” will never be able to fully become between two people.

The impact of distance on face to face contact continues with the internet which has had a significant effect on communication since the 1990’s. The advantage of the internet is that people have the ability to reply whenever they feel like. Another benefit is that distance does not affect the financial cost of interacting. In *Did Distance Matter before the Internet*, Mok and Wellman (2007) ask the question if the internet is finally leading to the death of distance. People have the ability to click on a link on a website page and they are taken directly to what they want. This concept relates to social interaction through the use of social networking websites. With websites such as Facebook and Bebo, the main objectives are: to provide a way for friends to communicate, to allow people to make friends and allow people to develop romantic relationships all from the privacy of your own home (Hanson, 2007, p. 80).

Social networking websites show how the action of meeting people has become a more private activity. However, social networking raises the question of whether friendships can be maintained on-line and whether they are as enjoyable or as fulfilling as face to face communication. “The image of others whom we interact with over the internet is an image that takes place in our own minds” (Hanson, 2007, p. 92). In other words, we cannot fully understand someone’s personality until we actually meet them face to face.

Intimacy is another concept involved in an individual's social network. Intimacy is about the strength of a relationship. The average person has about five socially close intimate ties and about six non-intimate ties (Mok and Wellman, 2007, p. 443). Socially close intimates have higher frequencies of face to face and telephone contact than non-intimates. The reason for this is that people may dedicate less effort to maintaining less strong ties and people communicate more with friends who are close both socially and physically. According to Mok and Wellman (2006, p.444), about half of all network members are kin (family); divided into immediate kin consisting of parents and children, and extended kin. Immediate kin meet most frequently and their frequency is very sensitive to distance. Contact with extended kin who live within five miles is also very high.

Gender is also related to the functioning of social networks. The general agreement on this is that females are more sociable than males. Females have more frequent face to face contact with their friends than males. Female students are more likely to communicate online, and share a residence with close friends, than males (Class Results 2010). The reason for this trend is explained by Mok and Wellman (2007) where it is stated "Women, with a principal responsibility in the 1970's for maintaining households, kinship networks, and friendship ties, have somewhat larger networks, mainly because theirs contain more neighbours and more kin" (p. 433). In other words, women had more time to develop close relationships as opposed to men, who spent most of the day at work and away from home.

So in summary, literature agrees that physical distance affects the frequency of contact. The greater the distance between two individuals, the less contact they have. Even though the internet and the telephone have allowed more people to communicate without actually travelling, the closeness of a friendship still relies on face to face contact.

The 78 students of Geography 216, 2010, took part in a survey that asked questions about "the extent to which the social interaction of university students with friends and relatives is conditioned by the effects of physical distance" (Class results 2010). Students were asked to list their five closest friends (emotionally) and relatives. Since my argument is that physical distance still plays an important role in the frequency of social interaction and the strength of a relationship, the results of the survey provided valuable information and evidence.

The results of the survey show that friendship and distance are related and that the presence of friends and relatives declines with distance. Of all the students who live apart from their five closest friends and relatives, 63 percent of all of the students' friends and relatives lived in the Wellington Region, 23 percent lived in other parts of New Zealand and 14 percent lived overseas. Because the proportion of all student's closest friends and relatives who live in the Wellington Region is far greater than the rest of New Zealand and overseas, the closeness of friends and relatives is related to physical distance and this supports my argument.

Figure 6 shows that there is a rapid drop in the frequency of friendship within the Wellington Region as distance increases, with a noticeable difference after ten kilometres. The main conclusion from this graph is that distance matters in the closeness of friends. The closer you are to a friend the more likely you are to communicate regularly. One reason for this could be that parents usually send their children to schools and colleges close to home, and this is how friendships are formed at a young age with other children who live in either the same suburb or same region.

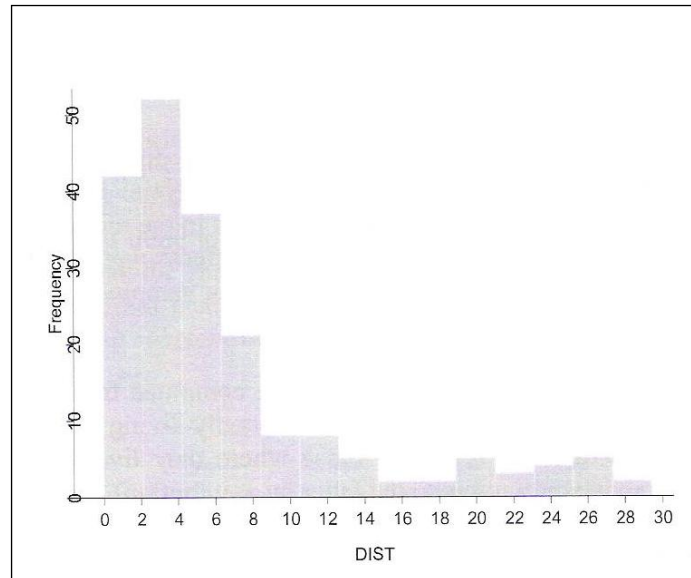


Figure 6. The change in the frequency of close (non-resident) friends with distance (to 30 kilometres) from the residence of Geog216 students. The Wellington Region, 2010

Source: Geography 216 Class Results, 2010, p.4

This leads to the argument that emotional closeness increases the frequency of meeting. In other words, the question being asked is, are emotionally close friends likely to meet more often than less close friends? The answer to this question can be divided into two tables: one that shows friends who live within five kilometres of the student (Figure 7) and friends who live five kilometres or more from the student (Figure 8). Figure 7 shows that 97 percent of students said they meet their very close friends, who live within five kilometres of them, on at least a weekly basis. The results from Figure 8 show a slightly less 87.5 percent for friends over five kilometres away.

Closeness	Frequency		Total
	Weekly	Monthly	
Very close	97.37	2.63	100
Less close	77.78	22.22	100
Total	84.55	15.45	100

Closeness	Frequency		Total
	Weekly	Monthly	
Very close	87.50	12.50	100
Less close	66.67	33.33	100
Total	75.00	25.00	100

The relationship between the closeness of friends and the frequency of meeting controlling for distance. The Wellington Region, 2010. Figure 7 (left) within five kilometres and Figure 8 (five kilometres or more).

Source: Geography 216 Class Results, 2010, p.9

The main message from this is that students are more likely to meet their emotionally closest friends more likely than their less close friends (Class Results 2010). There are two ways of looking at the results from Figures 7 and 8. Firstly, students would rather travel more distance to meet closer friends than to travel a short distance to meet less close friends. The second point relates more directly to my argument in that physical distance still plays an important part in the strength of a friendship. Students meet their very close and less close friends, who live within five kilometres, more frequently than very close and less close friends who live more than five kilometres away.

With my argument being that physical distance still matters in the closeness of friends and face to face interaction, the ultimate test will be to measure this against on-line communication; since this has allowed relationships to develop without frequent face to face communication. Does on-line communication substitute or complement face to face interaction? This argument can be tested by using the data from the class survey shown in Figures 9 and 10 which show on-line communication with friends and relatives living close (less than five kilometres) and far (more than five kilometres) from the student, within the Wellington Region.

Communicate on-line?	Friends	Relatives	Total
No	22.73	63.33	31.43
Yes	77.27	36.67	68.57
Total	100	100	100

Communicate on-line?	Friends	Relatives	Total
No	23.53	67.24	39.38
Yes	76.47	32.76	60.62
Total	100	100	100

On-line communication with friends and relatives living close and far from the student. The Wellington Region, 2010. Figure 9 (left) within five kilometres and Figure 10 (five kilometres or more).

Source: Geography 216 Class Results, 2010, p.11

Communicate on-line?	Friends	Relatives	Total
No	22.90	65.91	35.43
Yes	77.10	34.09	64.57
Total	100	100	100

Communicate on-line?	Friends	Relatives	Total
No	7.69	54.62	37.02
Yes	92.31	45.38	62.98
Total	100	100	100

On-line communication between students and friends and relatives. Figure 11 (left) within the Wellington Region, 2010. Figure 12 Elsewhere in New Zealand, 2010.

Source: Geography 216 Class Results, 2010, p.10 & 13

Figure 9 shows that 77 percent of students said they communicate on-line with friends that live close to them, and this value is slightly higher than the 76 percent of students who said they communicate on-line with friends who live far from them. Therefore, it is safe to say that on-line communication complements face to face communication on a regional scale and my argument is supported in that face to face communication still matters in maintaining a strong network of friends. However, by comparing Figures 11 and 12, it is evident that when face to face communication is not possible, as when students' friends live outside the region, on-line communication acts as a substitute. Therefore, "The role the internet plays in relationship to distance between friends therefore depends on the geographic scale the question is being posed at" (Class Results 2010).

The role of physical distance in social networks differs between males and females. Figure 13 shows the average distance between male and female students and their non-resident friends in the Wellington Region. The table shows that the average distance between female students and their non-resident friends is 1.2 kilometres less than that of male students. Since the general trend showed that females are more sociable than males, physical distance does play an important part in the frequency of contact and the functioning of social networks.

	Male	Female	Total
Friend	10.1	8.9	9.3

Figure 13. The average distance (in kilometres) between male and female students and their non-resident friends in the Wellington Region, 2010.
Source: Geography 216 Exercise 3, 2010, p.3

Based on the results of students surveyed in Geography 216, the overall trend is that female students are more sociable than male students. According to the data in Figure 14, about a third of female students meet their non-resident friends and relatives in the Wellington Region on a daily basis, compared to just over one-fifth of males. The overall trend is also backed up by the results in Figure 15, where it is shown that females communicate on-line more frequently than male students. About 64 percent of female students communicate online on a daily (very frequent) basis, and this value is slightly higher than the 55 percent of male students.

Frequency	Male	Female	Total
Daily	22.22	32.26	28.38
Less than daily	77.78	67.74	71.62
Total	100	100	100

Figure 14. Frequency of meeting non-resident friends and relatives in the Wellington Region, 2010, by gender of students in Geog216
Source: Geography 216 Exercise 3, 2010, p.1

On-line frequency	Male	Female	Total
No on-line	11.54	6.43	8.26
Very frequent	55.13	63.57	60.55
Less frequent	33.33	30.00	31.19
Total	100	100	100

Figure 15. Presence of on-line contact between male and female students and their non-resident friends and relatives in the Wellington Region, 2010.

Source: Geography 216 Exercise 3, 2010, p.5

So in summary, the results of the class survey of Geography 216 students show that physical distance still plays a role in the frequency of social interaction and the strength of a friendship. Although on-line social networking websites allow students to interact without physical contact, there is evidence that it actually supplements face to face interaction within a geographical region, and that those who are closer distant wise (within five kilometres) are just as likely to communicate on-line as they are by face to face.

The next area to test my argument, that physical distance still plays an important part in the strength of a friendship and the frequency of face to face interaction, is against my own social network. In my case, the argument is supported. Although I communicate with basically all my friends online I do have face to face contact with most of them on a regular basis. Also, I definitely feel closer emotionally to those friends who I have regular face to face contact with.

Firstly, with the case of my relatives, a lot of face to face interaction occurs because a large proportion of my relatives live in Island Bay; as do my family and I. There is a clear historical reason for this physical closeness because of our Italian ancestry. When Italian immigrants arrived in Wellington they settled in Island Bay, which is close to the coastline, for fishing reasons. Today, this pattern is still evident and it is very easy to have frequent face to face contact with my relatives as they are literally around the corner. Therefore, physical closeness has definitely resulted in the strong feelings I have for members of my family network.

I live in Island Bay and spent some of my primary school years in this suburb. Therefore I have developed friendships with many people who not only went to the same school as me, but also live in Island Bay. For me, it is very convenient to be able to walk a small distance down the street to meet a friend. I attended St Patrick's College in Kilbirnie for five years and developed many friendships through this network. With the case of making friends at college, I obviously developed friendships with people who lived outside of Island Bay, including the suburbs of Miramar and Karori. Therefore my social network of friends increased from a suburban scale to a regional scale. With my friends who live in Island Bay the most common place of meeting is at either of our residential addresses. The reason for this is simply because we live very close to

each other. The other most common places of meeting with my very close (less than five kilometres) and less close (more than five kilometres) friends who live in the Wellington Region are in town and at university.

It is very easy to have face to face contact with my university friends. I find that I have more face to face contact at university with my physically less close friends than close friends because it is easier for both parties than travelling throughout Wellington; since we all have weekly schedules and are easily able to decide on a time to socialise between classes. So university definitely makes up part of my social network and gives me a pathway to communicate with my less physically close friends.

With my on-line communication network, there were many similarities compared to the Geography 216 class results. Basically, on-line communication with my physically close friends in the Wellington Region supplements face to face contact. All of my five socially and physically close friends use the social networking site Facebook and all communicate with me on at least a weekly basis. These five friends all attend Victoria University therefore face to face contact also occurs on at least a weekly basis. The internet does make it easier and quicker to communicate, but personally I feel I am able to have a more meaningful conversation with someone if I communicate with them face to face.

As was the case with the class results, online communication acts as a substitute for my friends who live outside the Wellington region, in other parts of New Zealand and overseas. When I was young I lived in Nelson for a couple of years and developed many friendships. Facebook allows me to keep in touch with these friends on a weekly to monthly basis. I also have a few friends overseas including the USA and Australia. Communication with these friends happens less frequently than my friends in Nelson. Having said this, the trend seems to be that the further away a friend lives physically the less on-line communication we have, which supports my argument that physical distance still matters in the strength of a friendship.

So to conclude, physical distance does have an important role in the functioning of social networks, the frequency of face to face contact and the strength of a friendship or relationship. My argument has been supported by evidence collected from various literature works, the class results of Geography 216 and my own social network. Although the development of computer technologies, such as the internet, has allowed communication to occur on-line without meeting a person face to face, it is agreed that individuals feel closer emotionally to their friends or relatives who are closer to them physically and are able to have regular face to face contact with.

Reference List

- Berkman, L.F. & Clark, C. (2003) Neighbourhoods and networks: the construction of safe places and bridges. In Kawachi, I. & Berkman, L. F. (Eds.) Neighbourhoods and health. Oxford, Oxford University Press.
- Geography 216. (2010) Class Results. Victoria University of Wellington.
- Hanson, J. (2007) How cell phones and the internet change the way we live, work and play. Westport, USA: Praeger Publishers.
- Knox, P. & Pinch, S. (2006) Urban and social geography: 5th edition. Pearson/Prentice Hall. pp. 159-164
- Mok, D., Wellman, B. & Basu, R. (2007) Did distance matter before the internet? Interpersonal contact and support in the 1970's. *Social Networks*, 29, 430-461.
- Smith, J., Form, W.H. & Stone, G.P. (1954) Local intimacy of a middle sized city. *American Journal of Sociology*, 60, 276-284. In Wheeler, J. & Stutz, F.P. (1971) Spatial dimension of urban social travel. *Annals of the Association of American Geographers*, 61, 371-386.
- Wheeler, J. & Stutz, F.P. (1971) Spatial dimension of urban social travel. *Annals of the Association of American Geographers*, 61, 371-386.