AoIR-Conference «INET 3.0»
Maastricht, 13-16. Octobre 2002

«Online communities in a 'glocal' context»

Christoph MÜLLER,
Institute for Sociology,
University of Berne, Switzerland

DRAFT, DO NOT CITE!

The method of ego-centered Social Network Analysis allows to study social relations starting from individuals and their personal ties, avoiding preliminary assumptions of already existing «groups». Instead, the shape and form of the empirically discovered ties (sometimes) indicate the presence of social aggregates like «groups» or «communities».

Empirical research on ego-centered social networks of 101 frequent users of different chats and newsgroups in Switzerland shows a strong overlap between networks maintained online and offline. In most of the observed cases, the social relations of the users of «online communities» are thus not «virtual» in a strict sense of the word. Instead, they are socially «rooted» in offline contacts

It is remarkable that most of the users interviewed did not know each other in an offline context before meeting online. Instead, they first established some online contacts, and then further expanded their relationships into different offline contexts, meeting their new peers for example in pubs or discos.

The results of our study are regarded as clear indicators of the «social shaping of technologies»: Although the Internet allows users to establish and to maintain relationships strictly online, this is not always the case. The use of the possibilities of New Technologies are shaped by the cultural backgrounds, by different social settings, and by the concrete practice of the users. Online communication services allow to broaden the network of social relations not only on a global level, but also in a geographically smaller local context.

Christoph MÜLLER is a Ph.D. student in Sociology at the University of Berne, Switzerland. He works on «online communities» in chats and newsgroups, applying methods of Social Network Analysis as well as Discourse Analysis.

Christoph MÜLLER, Mainaustr. 34, CH-8008 Zurich / Switzerland

mailto:<muellerc@soz.unibe.ch>
http://www.soz.unibe.ch/forschung/ii/virt/

Introduction

Internet is not just a *technical network*, linking computers and servers, but also a *social network*, linking people. Internet communication services offer the possibility to establish multilateral relationships that are independent of spatial co-presence. Email, chats, newsgroups or messanger services like ICQ allow people to maintain existing social relations with friends and relatives over geographically dispersed regions, as well as to establish new relationships with people one probably have never met offline before. In principle, this communication can happen on an almost global level. It has been argued, therefore, that the Internet will foster global communications by replacing local social contacts. However, as I will try to show, this is not always the case: The *technical possibility* of a certain feature does not mean that it can be observed in reality. The empirical basis for my argumentation consists of personal interviews and of communication data collected between 1998 and 2000 in two different newsgroups and three chats, all -- at least symbolically -- based in Switzerland.[1]

Mediated communication and social relations maintained over long distances are not completely new: They are general characteristics of modernity, based on new possibilities in communication and in transportation systems.[2] For example, the first telegraphs allowed the control of remote military systems from one centralized headquarter and with the telephone, people could maintain personal contacts to friends and relatives abroad (FISCHER 1992). However, the fact that steamboats, railways, cars and airplanes allowed people to travel much faster does not mean that people in ancient times (or people living in not modernized parts of the world) would not have travelled at all. But what changed a lot indeed is the *speed* of communication and transportation – and the Internet added a lot to this process of «speeding up»: Messages are exchanged (almost) at the speed of electrons over long distances and even multilateral communication can be maintained without physical co-presence.[3] As GIDDENS 1990 noted, communication is getting loosened from restrictions in time and space: people may communicate without coordinating a temporal or spacial co-presence.

As with most new technologies, this development has been critizised. 100 years ago it was argued that the sheer speed of railways would make people sick.[4] From a sociological perspective, there were a lot of claims about individualization in contemporary western societies where people would get «atomised» and community would get «lost». Especially in German sociology, there is a remarkable tradition of theories stating a «loss of community» in the traditional form of families, neighbourhoods, or professional groups (from Ferdinand TÖNNIES' «Gemeinschaft und Gesellschaft» TÖNNIES 1963 to BECK / BECK-GERNSHEIM 1994 and HEITMEYER 1997). In the USA, the «community question» is often discussed under the label of «communitarian» critique of modern societies (ETZIONI 1988 , BELLAH 1985 et al.), arguing that members of modern societies are more and more «bowling alone» (PUTNAM 1995).

---

1 The data was collected in the research project «Virtual Communities – The Social World of the Internet», directed by Prof. Dr. Bettina HEINTZ, based at the University of Berne (Institute for Sociology) and funded by the Swiss National Science Foundation (social science Priority Programme «Switzerland: Towards the Future»). The following presentation is a part of my PhD thesis studying «online communities» in the Internet. Three different research methods are applied, combining qualitative and quantitative methods: (a) Online participation (mostly silent) and log file analysis, (b) offline in-depth interviews with experts and so-called «power-users», (c) offline interviews with frequent users about their personal networks.

2 For an overview, see for example CALHOUN 1992, GIDDENS 1990, WELLMAN 2000.

3 Cf. the notion of «travelling without moving the body». For the influence of the speed of transportation means on the perceived «size of the world» see HARVEY 1989.

4 The process of «speeding up» has been strongly criticized in the last decades as well, for example by Paul VIRILIO.

On the other hand, a range of «community studies» showed that geographically small-scale relations remain important.[5] From the perspective of Social Network Analysis, communities did never get «lost», although they take different forms in contemporary society: As Barry WELLMAN argued, a typical «modern» personal community consists of memberships in multiple, interest-based communities, where people maintain «diversified portfolios of ties providing access to a wide range of network members and resources.» (WELLMAN, CARRINGTON and HALL 1988 , p.197). In general, these relationships are functionally more specific, temporary less durable, and geographically dispersed. Yet, local contacts seem to remain important as, for example, most telephone calls are local and a lot of emails are exchanged between people living in short distances (WELLMAN / HAMPTON 1999, HAMPTON 2001).

Whether or not new technical means are leading to more geographically dispersed relationships is an *empirical* question. As you may imagine, as a sociologist, my answer to this question will be «neighter-nor». In the following, I will present three approaches to the «glocal» aspects of multilateral online communication.

1) Geographical distance of «Internetpeers»

The first approach relies on an analysis of the personal networks of 101 frequent users of chats and newsgroups in Switzerland.[6] The respondents in this sample are quite young, with an average age of 24 years, and they spend a lot of time on the Internet, up to 60 hours per week. In the Interview, they mentionned in average 21.5 Alteri.[7] (5...64). More than one third of the alteri are living in the same city or village (38.7%, defined as a distance of <=10km), one third in the same region (<= 30km), almost one third in another part of Switzerland, and only 10% living outside Switzerland (Appendix, Table 1).

Considering only alteri using the Internet («Internetpeers»), we find that they often do live in more distant places.[8] In fact, the distance between ego and alter correlates strongly with the frequency of both online and offline contacts [9]. Nonetheless, 27% of the Internetpeers are living in the same city as ego (up to 10km), and another 27% in the same region (up to 30km). Online contacts are not only maintained with alteri living far away, but also with people living «next door». For example, with 31% of all the alteri living in a distance of 10 km or less, Ego has an online contact at least once a week, with 9% of these alteri even daily! (Appendix, Table 3).

Accordingly, we found a *strong overlap of online and offline ties*: In average, only one quarter of the relations between ego and alter are exclusively online, another quarter is exclusively offline,

---

5 FISCHER, JACKSON, STUEVE, et al. 1977, WELLMAN 1979, FISCHER 1982. For a general overview, see WELLMAN 1998.

6 Data was collected in personal, face-to-face interviews of 55 minutes in average, in summer 1998. The sampling procedure and some data on the respondents are described in the final report (in german) HEINTZ / MÜLLER 2000.

7 N=2174# Range 5...64 Alteri, SD=11.18. For the following analysis, the number of alteri considered have been reduced to 1619 (Range 5...20, SD=4.41), setting a maximum of 20 alteri for each network and excluding alteri mentionned in only one of three specific name generators. For details see HEINTZ / MÜLLER 2000.

8 Appendix, Table 2. Crosstabs, Chi2=192.8, $p<0.01$, $r= 0.35$ ($p<0.01$). In fact, to be an «Internetpeers» does not strictly imply that relations are maintained online. However, there is a very strong correlation between the frequency of online contacts and being an «Internetpeer».

9 There are strong correlations between the distance of the alteri and the contact frequency online ($r=0.37$, $p<0.01$) and offline ($r=–0.59$, $p<0.01$), as well as between being an Internetpeer and the frequency of online contacts ($r=0.71$, $p<0.01$) and the frequency of offline contacts ($r=–0.49$, $p<0.01$). As may be expected, a linear regression reveals the dichotomized variable «alter is living more than 10km away from ego» as the best predictor for the frequency of both online contacts and offline contacts: Online-contacts are significantly more frequent with alteri living far away, and offline contacts are more frequent with alteri living nearby.

and 50% of all relations are both online and offline. For example, every third peer, with whom Ego spends the offline leisure time, is also an Internetpeer. In most cases, online ties are not uniplex, but *multiplex*: online and offline relations do not form separate clusters.

It is remarkable that most of the users interviewed did not know their Internet peers in an offline context (like family, school, workplace, or clubs) before meeting online. Instead, they first established some online contacts, and then further expanded these relationships into different offline contexts, meeting their new peers for example in pubs or discos. The multimediality of the relations the egos have can be shown with the following network graph of a chat user:[10] The network shown in this graph is quite densely knit, with a lot of mutual online *and* offline ties.[11]

We could assume that the relations between the egos and their Internetpeers were just casual or «weak» ties, but this is not the case. A lot of the relations to online peers are strong ties in the sense that they are providing personal and emotional support. About one third of all «strong relations» are also Internetpeers.[12] On the other hand, only about 2% of all «strong relations» between ego and alter are maintained exclusively online. We conclude that typically, strong Internet relations are stabilized by frequent offline contacts. They are locally «rooted».

There are some advantages for extending online interactions to the offline world, as they help to overcome some deficiencies of computer-mediated communication (CMC): They support the construction and reconstruction of trust and confidence, they allow positive sanctioning of «friendly behaviour», and – after all – we should not forget that especially the chat users in our sample are quite young, living in a age of adolescence, where *dating* is a very important issue.[13]

2) Situating the «other» in a context of locality

The second point of my argument is based on a different, *qualitative and interpretive approach*. It starts from the conviction that people organize their perceptions of the world by interacting with others. People are thus building (or: constructing) specific «social worlds», based on common dimensions (or: coordinates, axes). For this second approach I am asking how (if), in text-based chats and newsgroups, a common «social world» with a common frame of reference is established and maintained in interaction.[14]

---

10 Of course, a lot of the respondents are using both Internet communication services. But in order to analyze differences between synchronous chats and aynchronous newsgroups, they were asked to decide what type of service is more important for them. Therefore, the term «chat users» refers to «users preferring chats». — Typically, the networks of chat users show a stronger overlap of online- and offline-relations and they are *more densely knit*, compared to the networks of newsgroup users.

11 The graph is based on a «who knows whom?» matrix: Every respondent answered the questions, if each of his Alteri (Nr. 1, 2, 3, ... (n-1)) do know each other Alteri (Nr. 2, 3, 4,... n) online only (red), offline only (blue), on-and-offline (green) or not at all (blank). The Ego-Alteri relations are not represented in this graph. Distances do not reflect valued social distances. The network graph is available at <http://soz.unibe.ch/forschung/ii/virtgifs.html>.

12 The «strength» of ties was measured by three different variables. The results show that (a) 39% of the peers to whom Ego «feels especially close to» are also Internetpeers, (b) 46% of all the peers Ego declared as being a «good friend» are also Internetpeers, (c) 35% of the peers, with whom Ego talks about «personal issues» are also Internetpeers. The concept of «weak ties» goes back to GRANOVETTER 1973.

13 In some communication services, there are regular offline meetings organised by a group of volunteers or even promoted by the staff.

14 Theoretically, this part of the study is mainly based on Erving GOFFMANs interaction analysis (e.g. GOFFMAN 1959), partly on conversation analysis (e.g. SACKS 1992, PSATHAS 1995, and for openings especially SCHEGLOFF 1968). The data for this part of the research consists of logfiles of the publically available interaction in a newsgroup of the Swiss hierarchy of the Usenet (ch.talk) and in a chat. The corpus consists of about 30'000 newsgroups messages collected between October 1997 and October 1999, as well as 13MB of ASCII text (about 300'000 lines) of chat communication collected in the same time period.

A «constructivist» approach is especially useful in studying text-based online communication services of the Internet, where participants have to present themselves *actively* and where their possibilities to imagine the others are restricted to text: What we do know from the other participants is to a very great extent what they actively and explicitely *give* away. We do have almost no information that is *given off* by the participants. If we want to know something from another participant, we have to provoke an information, e.g. by asking them a question.

Observing the interactional behavior of the participants in one selected chat during the openings of conversations, it is striking that the questions they ask each other are typically questions about age, gender and locality: How old are you? m or f? Where are you from?[15] Obviously, the «local» remains very important as a main point of reference in a system of coordinates to situate the others, as well as oneself. There are two aspects of this reference to the «local»:

a) Home in the sense of «native country», origin («Heimat») remains important, at least in Switzerland, where almost literally people from each valley have kept a local identity and differ in their dialects or regiolects, maintaining fine language differences between places only 20 miles away from each other. This may be different in the US or in other nations.[16] At least in Switzerland, the local remains important. It provides security, certainty and identity.

b) (situational) locality («Aufenthaltsort»): Although people may log into the Internet almost from anywhere -- from their home, workplace, near the lake, in a restaurant, in a train -- this does not make the notion of place obsolete! In the contrary: From the results of our research we would claim that the less it is obvious from where a person logs into the Internet, the more this locality becomes important. This phenomenon is similar to an effect which can be observed in mobile phone communication, where -- at least in Switzerland -- the first question of an opening sequence is typically «where are you?».

The fact of non-localizedness seems to be disturbing. When people are communicating, they want to know where their alteri are, they want to have more informations about the offline, local context of the alteri. The information about the locality *provides an anchor*, making it easier to «imagine» another person.

So when people are communicating in the world wide Internet, although they can maintain the feeling of being part of a global «imagined community» ([ANDERSON, 1983 #260]) of «webcitizens», it is important for them to situate the others (and themselves) in categories «imported» from the offline world. Often these are fixed, *ascribed* categories like gender, age or the home (native country, origin). Online relations are being *anchored* in categories of the offline world. Positioning the others in a well known frame of reference provides stability, security and identity.

---

15 There are abreviations for these three questions as well, e.g. in french: «asv?», meaning «age, sex, ville?». In Swiss german, the quesions about locality were mainly «wohär chunsch?» or just «wohär?». For a systematical study of questions, especially in openings, and of self-presentations, the logfiles were scanned applying the UNIX 'grep' command, looking for keywords like I, me, you, ? who, when, where, why, etc.

16 For example, there seems to be a remarkable difference in the selfconceptualization of people in two south american nations: In Brazil, people often say:«I'm Brazilian, I've been living here for five years now..», whereas in Argentina: «Oh, you're from Europe?! I am European as well, my grandparents moved to Argentina in 1910». For the local or regional identity in Switzerland, see the research of Hans-Peter MEIER-DALLACH.

3) Local and global references of norms and rules

The third point of my argument is about norms and rules in text-based, not moderated online communication services. On one hand, norms and rules are culturally diverse, on the other hand, there are some «internet-wide» rules of conduct, like some «netiquettes», and of course there are standardized technical protocols of Internet message exchange.[17]

I am underlying my third argument on why the local remains important taking the example of a Usenet newsgroup, called <ch.talk>.[18] Observing the conversation in this newsgroup, I found different frames of reference the users relayed on to situate the others, compared to the chat presented above: In their self-presentation, newsgroup users most often referred to political, ideological positions (like left wing- right wing, liberal - conservative), or to «fandom» (e.g. for a specific football club). In most cases, their self-presentation in embedded in a context of specific arguments, like «as a mother of three children, I know...» This holds for the notion of locality as well: Typically, the participants of ch.talk do not use signature files and they do not ask about nor present their own «home» nor their «locality» -- except in the context of an argument («I am living in Zurich for 10 years now, therefore, I know...» -- «I am from Bosnia myself and therefore, I know...») or as a joke.

Nonetheless, in most of the interaction, their frames of reference remain local. This has two different aspects: (1) The most common language is german, some few messages are written in french, even fewer in english or in italian.[19] Language borders often coincide with geographical borders. (2) Although participants of ch.talk do not situate themselves and the others *directly* in terms of locality, the subjects of discussion are mostly local, regional or national ones. The main dimensions for situating participants are «global» ideologies and political positions, but the concrete discussions are about *Swiss* political topics, about *local* traffic systems, about *Swiss* legal questions – subjects which can be found in the local or national section of newspapers. This is in perfect accordance with the formal aim of ch.talk, which is broadly defined as «to discuss topics regarding Switzerland», e.g., discussions about Swiss politics.[20]

However, if it comes to conflicts, the reference often becomes «the Internet» and its standardized technical structure. An examination in ch.talk on what is considered as a mistake, how conflicts are handled etc. shows that «global» regulations remain extremely important. If a participant is opposing the use of faked sender adresses, the arguments are typically referring to international, standardized technical norms, like the «Network News Transfer Protocol» NNTP or to «traditions of

---

17 E.g., HORTON / ADAMS 1987, RFC 1036 on the Network News Transport Protocol NNTP, or standardized protocols on different Internet layers like TCP/IP. Although often referred to in the singular, there is not only *one* Netiquette. It would be an interesting project to systematically compare the codes of conduct in different parts of the Internet.

18 Interestingly, the topological hierarchy of the almost-world-wide Usenet is to a great extent organized by geographical entities: Next to the «big eight» categories (like rec.* or comp.*) and to the alt.*-hierarchy, most newsgroup categories are based on nations (like fr.*, de.* or ch.*) or on even smaller entities like local universities.

19 The fact that there are only few messages written in french is often discussed in ch.talk. Untill now, every proposal about establishing a special french language newsgroup in the ch.*-hierarchy failed. People from the french speaking part of Switzerland participate in french newsgroups, as italian speaking people participate in italian newsgroups. -- English sometimes serves as a «lingua franca» in discussions between people from different language regions of Switzerland. Further, a lot of «global» acronyms and english expressions are imported, like AFAIK, IMHO, IANAL etc. for ch.talk, Hi!, bye, AFK, ROTFL or emoticons for chats.

20 Like in other newsgroups, this aim is formally fixed in a so-called *charter*, defining some basic rules on what is allowed and what's not allowed. For example, in the case of ch.talk, messages should consist of text only, without attachments and not using HTML code or «binaries». In general terms, the charter defines what *language* should or should not be used in the ch.*-newsgroups - that is: «social language» like german, french, english, as well as technical languages, like HTML, MIME, ISO-8859-1 or «Quoted-Printable». (http://www.use-net.ch)

the Usenet». The argumentation is mainly *based on usability*: Every Internet user should be allowed to participate, no matter which operating system or which software program one is using, nor depending on a broadband connection. Similarly, the main argument expressed against various forms of «flooding» is «technical» in the sense that these messages have a bad «signal-to-noice ratio» and that they are a «waste of bandwith», that is: a waste of ressources, i.e. of bytes. The principles of a worldwide «open access» and of «interconnectivity» are very basic and firm convictions of the Internet structure, as well as important aspects of the Internet mythology (cf. HAUBEN 1995, HAFNER / LYON 1996).

Further, the organizational structure of ch.talk is based on democratic procedures like RfDs and CfV,[21] typical for a very wide part of the Usenet. However, this does not mean that this strucure was not flexible: In summer 1999, the voting rules were *adapted* for Switzerland. After some attempts to establish new groups in the ch.*-hierarchy failed,[22] the voting rules were changed in order to simplify to creation of new groups.

This is just one example of how «global» rules are adaptated to specific «local» needs and conditions. Even if the social organization is relying heavily on international, Internet-wide standards and rules, the local context remains important.

Concluding: Aspects of «glocality»

Although Internet communication services offer a lot of possibilities for global interaction, local aspects remain important both as an «ideological» frame of reference and as an anchor for concrete interactions.

(1) The results of the personal network analysis show that a lot of online relations are maintained with alteri living in a short geographical distance. Further, there is a strong overlap between online and offline relations: Most ties are maintained both online and offline. Therefore, relations maintained by online communication services do not *replace* existing local relations, but they add supplementary distant relations.[23]

---

21 For example, in order to define the aim of a newsgroup or to propose a new group, every person may propose a formal «*Requests for Discussion*» (RfD). After a one-month period of discussion, the request may be revised and relaunched. Then, a «*Call for Votes*» (CfV) is carried out (cf. REYNOLDS / POSTEL 1987) In a similar way, on a world wide level, the *technical standards* of Usenet and Internet are not defined by some «general manager», nor by an international standardization agency (like ISO), but as a result of discussions among system operators and users, following the ideal of accepting the technically «one best way» (-- although this ideal is not always fulfilled in practice, cf. HOFMANN 1998).

22 Before this votation, the two criteria for establishing a new newsgroup in the ch.*-hierarchy were: ««For a group to pass, YES votes must be at least 2/3 of all valid (YES and NO) votes. There must also be at least 100 more YES votes than NO votes.» In june 1998, the establishment of <ch.finance> failed although there were more than 2/3 of Yes votes (100:22), because the difference between Yes and No was less than 100 votes. The same happened to the attempt to establish <ch.talk-suisse-romande> (100 yes:33 no), as well as, in april 1999, <ch.comm> (104 Yes: 9 No). The second criteria was then changed to: «For a group to pass, ... at least 60 votes on YES [must] have been given.». The main argument was that «The hurdles for the creation of a new group are too big and allow it to a very small minority to ratten the will of a big majority.» (1. RfD New voting rules for the ch.*-newsgroups, June 1999)

23 One may argue that these results were restricted to small-scaled, densely populated, multilingual Switzerland: The smaller geographical space provides easier possibilities to meet other users offline, and the smaller social space may reinforce a users' sense of being a member of a «family». Further, Switzerland has a high population density, while social organization is generally small-scaled and there are different cultural attitudes to spatial distances than in the US, for example. However, Keith HAMPTONS study on «Netville», a wired suburb in Canada, found similar results (HAMPTON 2001, HAMPTON / WELLMAN 1998). For a study on borders in mailinglists see BÖS / STEGBAUER 1997 and STEGBAUER 2001.

(2) The analysis of opening sequences of chat conversations show that the notion of «locality» is one of the main dimensions for situating the unknown «other». It offers stability and security, both in the sense of «home» (Heimat) and of situational locality (Anwesenheit).

(3) Although the Internet is technically based on standardized protocols and some social rules are claimed to have a world-wide validity, local «languages» remain important -- both on the level of technical and of social exchange. Global norms and rules remain important as a reference point, but they are adapted to local needs and conditions.

The results of our study are regarded as clear indicators of the «social shaping of technologies»: Although the Internet allows users to establish and to maintain relationships strictly online, this is not always the case. How a new technology is used is shaped by the cultural backgrounds, by different social settings, and by the concrete practice of the users (MacKenzie / Wajcman 1985, Bijker / Law 1992). The Internet is a relatively open system, and therefore it is *contingent* to a great extent. It can be shaped by people who adapt it for their own needs:

- to find technical support in an almost global pool of specialists;[24]
- to chat with their neighbor kids about their school duties;
- to exchange news on rare butterflies with people in Brazil and Belgium;
- to discuss attempts to improve the local transportation system
- to find emotional support from unknown strangers living 2000 miles away.

Of course, Internet has the potential to broaden social relations from small scale villages to extralarge global «neighbourhoods», and of course this potential is carried out quite often. However, we should not forget two very basic considerations:

(a) *There is something between the local and the global*: For a young person living in a small town it can be very important build and to maintain relationships with people living in a town 20 miles away, and to be able to communicate with them not only on saturday nights in the disco, but also during the week, using Internet services. Online communication services allow to broaden the network of social relations, providing access to people and information, not only on a *global* level, but also in a geographically smaller *regional* or *local* context.

(b) *«Global» and «local» are not to be regarded as exclusive categories*: Even if social relations are extended on a regional level, this does not mean that the local neighbourhood becomes unimportant. As a frame of reference, it may be challenged by different, «foreign» views, but it remains important.

---

[24] This is expecially important in all cases of «special interest», like uncommon hobbies or technical advices, where it is important to have a large pool of interested people. For «special interest» questions, the pool of people living in Switzerland often do not reach a «critical mass». This is especially true for scientist as well: I am in many ways more interested in an exchange with a sociologist living in Canada than with a farmer living in the small village I am living myself. On the other hand, I am not really very much interested in discussions about local traffic problems of Buenos Aires – except for my profession as a sociologist, who is interested in *everything*.

References:

Anderson, Ben 1983: *Imagined Communities: Reflections of the Origin and Spread of Nationalism*. London: New Left Books.

Beck, Ulrich / Elisabeth Beck-Gernsheim 1994: "Individualisierung in modernen Gesellschaften: Perspektiven und Kontroversen einer subjektorientierten Soziologie". In *Riskante Freiheiten,* edited by Ulrich Beck & Elisabeth Beck-Gernsheim. Frankfurt/M. (Suhrkamp): 10-42.

Bellah, Robert et al. 1985: *Habits of the Heart*. Berkeley.

Berger, Peter A. 1995: "Anwesenheit und Abwesenheit: Raumbezüge sozialen Handelns" *Berliner Journal für Soziologie* (1) 1: 99-111.

Bijker, Wiebe E. / John Law (eds.) 1992: *Shaping Technology / Building Society. Studies in Sociotechnical Change*. Cambridge/London: MIT Press.

Bös, Mathias / Christian Stegbauer 1997: "Das Internet als Globalisierungsprozess: Zur Dialektik weltweiter Entgrenzung". In *Differenz und Integration,* edited by Stefan Hradil. Frankfurt/M. (Campus): 650-662.

Calhoun, Craig 1992: "The Infrastructure of Modernity: Indirect Relationships, Information Technology, and Social Integration". In *Social Change and Modernity,* edited by Hans Haferkamp & Neil J. Smelser. Berkeley (Univ. of California Press): 205-236.

Etzioni, Armitai 1988: *The Moral Dimension*. New York: The Free Press.

Fischer, Claude S. 1982: *To Dwell among Friends. Personal Networks in Town and City*. Chicago: Chicago UP.

Fischer, Claude S. 1992: *America Calling. A Social History of the Telefone to 1940*. Berkeley: University of California Press.

Fischer, Claude S. / Robert Max Jackson / C. Ann Stueve / Kathleen Gerson / Lynne Mc Callister Jones 1977: *Networks and Places, Social Relations in Urban Settings*. New York: The Free Press.

Giddens, Anthony 1990: *The Consequences of Modernity*. Oxford: Polity Press.

Goffman, Erving 1959: *The Presentation of Self in Everyday Life*. Garden City, N.Y.: Doubleday.

Granovetter, Mark 1973: "The Strength of Weak Ties" *American Journal of Sociology* (78) : 1360-80.

Hafner, Katie / Mathew Lyon 1996: *Where Wizards Stay Up Late: The Origins of the Internet*. New York et al.: Simon & Schuster.

Hampton, Keith 2001: "Living the Wired Life in the Wired Suburb: Netville, Glocalization and Civil Society" PhD Thesis (Sociology), University of Toronto.

Hampton, Keith / Barry Wellman 1998: "Netville On-line and Off-line. Observing and Surveying a Wired Suburb" *Am. Behavioral Scientist* (43) 3: 475-492.

Harvey, David 1989: *The Condition of Postmodernity. An Enquiry into the Origins of Cultural Change*. Oxford: Basil Blackwell.

Hauben, Michael et.al. (eds.) 1995: "The Net and The Netizens: The Impact the Net has on People's Lives" *The Amateur Computerist* (6) 2-3, Winter/Spring 1994.

Heintz, Bettina / Christoph Müller 2000: "Virtuelle Vergemeinschaftung. Die Sozialwelt des Internet. Schlussbericht zuhanden des Nationalfonds" <http://www.soz.unibe.ch/forschung/ii/virt/sb00.pdf>.

Heitmeyer, Wilhelm (ed.) 1997: *Was hält die Gesellschaft zusammen?* Franfurt/M.: Suhrkamp.

Hofmann, Jeanette 1998: "Being Near the Heart of Things - Political Authority on the Internet" <http://duplox.wz-berlin.de/docs/thehea/>, 6/98.

Horton, M. / R. Adams 1987: "RFC1036: Standards for Interchange of USENET messages" <http://www.isoc.org/guest/zakon/Internet/History/rfc1036.txt>, December 1987.

MacKenzie, Donald / Judy Wajcman (eds.) 1985: *The Social Shaping of Technology*. Milton Keynes: Open University Press.

Psathas, G. 1995: *Conversation analysis: The study of talk-in-interaction.* Vol. 35, *Qualitative research methods*. Thousand Oaks: Sage.

Putnam, Robert 1995: "Bowling Alone: America's Declining Social Capital" *Journal of Democracy* (6) 1: 65-78.

Reynolds, J. / Jon Postel 1987: "RFC 1000: The Request for Comments Reference Guide" <ftp.sunsite.cnlab-switch.ch/doc/standard/rfc/rfc1000.txt>, August 1987.

Sacks, Harvey 1992: "Lectures on conversation". In *Lectures on conversation,* edited by G. Jefferson. Oxford (Blackwell): .

Schegloff, Emanuel A. 1968: "Sequencing in conversational openings" *American Anthropologist* (70) : 1075-1095.

Stegbauer, Christian 2001: *Grenzen virtueller Gemeinschaft. Strukturen internetbasierter Kommunikationsforen*. Wiesbaden: WDV.

Tönnies, Ferdinand 1963: *Gemeinschaft und Gesellschaft*. Darmstadt.

Wellman, Barry 1979: "The Community Question. The Intimate Networks of East Yorkers" *American Journal of Sociology* (84) march: 1201-1231.

Wellman, Barry 1998: "Things Ain't Wot They Used To Be – And They Never Were! Part I of "The Network Community: An Introduction to Networks in the Global Village"". In *Networks in the global Village*, edited by Barry Wellman. Boulder, CO (Westview Press): 1-47.

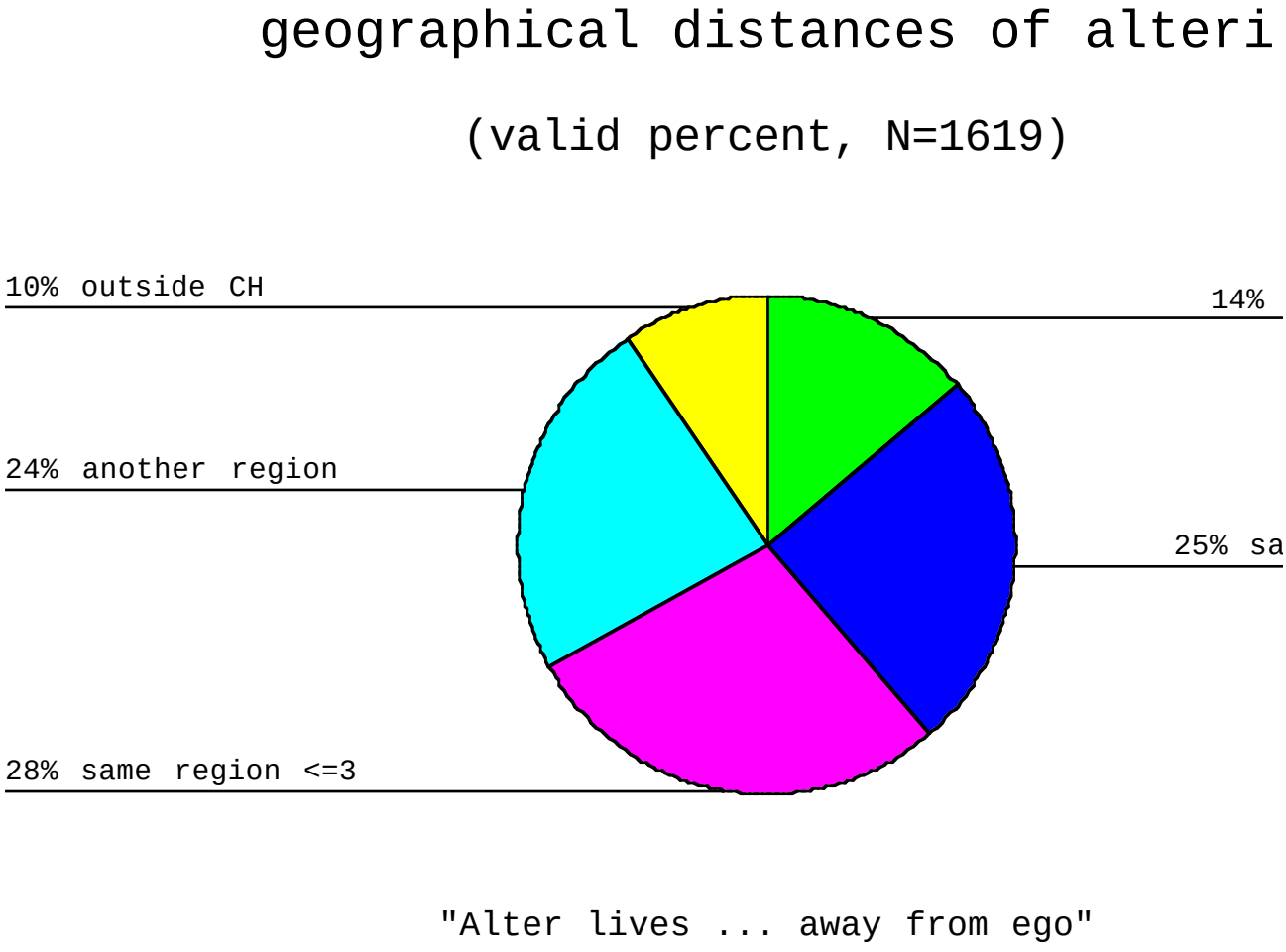
Wellman, Barry 2000: "Physical Place and CyberPlace: The Rise of Networked Individualism" *Internat. J. of Urban and Regional Research* December 2000.

Wellman, Barry, Peter J. Carrington and Alan Hall 1988: "Networks as Personal Communities". In *Social Structures: a Network Approach*, edited by Barry Wellman & S.D. Berkowitz. Cambridge (Cambridge University Press): 130 - 184.

Wellman, Barry / Keith Hampton 1999: "Living Networked in a Wired World" *Contemporary Sociology* (28) 6.

Appendix

Table 1: Geographical distance: Where do the alteri live?



FREQUENCIES PDIST (geographical distance of Alteri)
"Alter lives ... away from ego"

14% same quarter (>=1 km)
25% same city or village (<=10km)
28% same region (<=30km)
24% another region in Switzerland
10% outside Switzerland

(Valid percent, 9% missing)

Table 2 bars PINT x PDIST

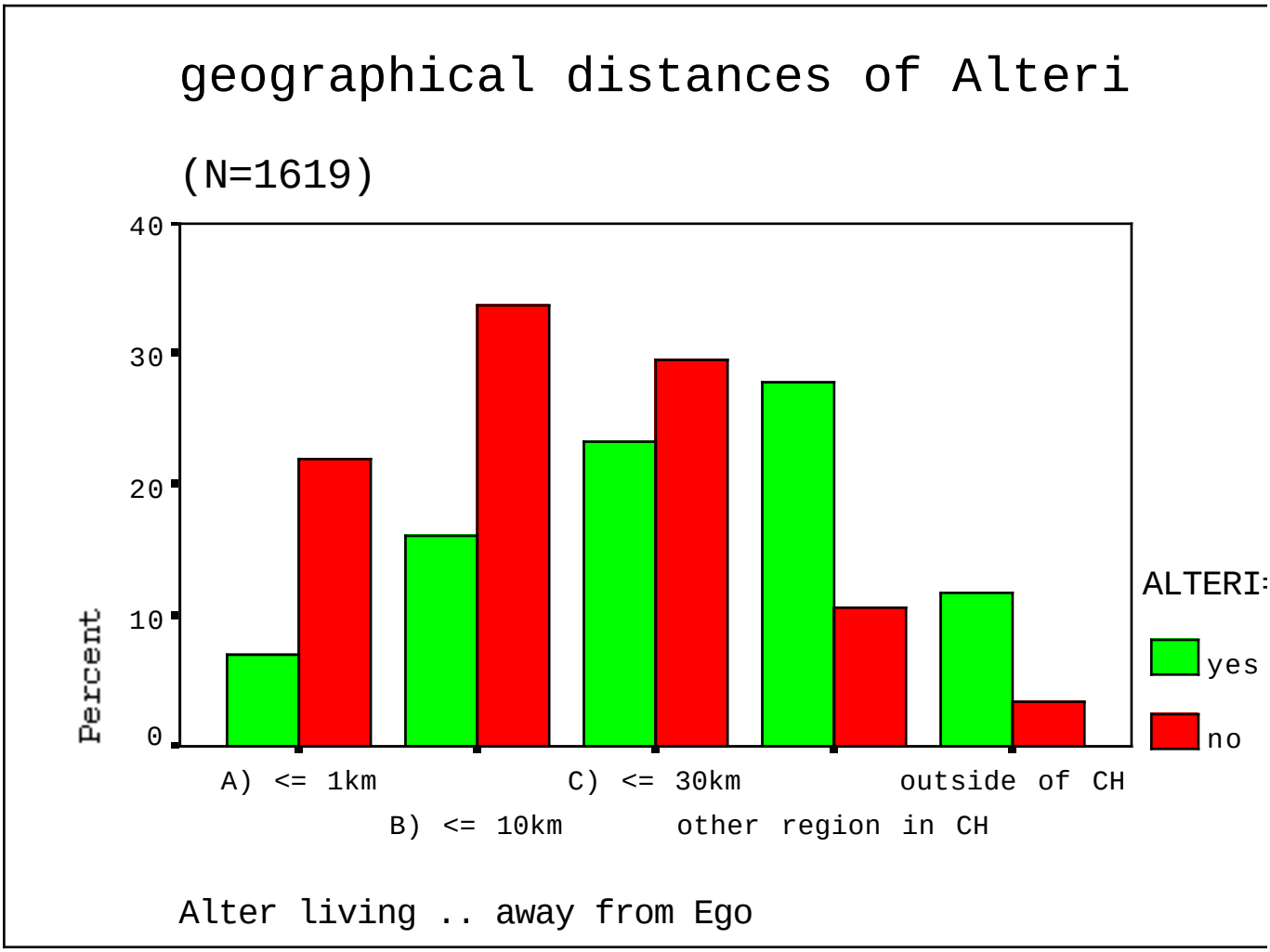


Table 3a Crosstabs PDIST x FREQON

PDIST geogr. distance of alter X FREQON frequency of online contacts

PDIST	Count / Row Pct / Col Pct	FREQON frequency of online contacts: never (0)	less (1)	one to several times per... year (2)	month (3)	week (4)	day (5)	Row Total
1		114	5	4	23	36	21	203
same quarter (<= 1km)		56.2	2.5	2.0	11.3	17.7	10.3	13.8
		27.3	9.4	6.1	8.7	7.3	11.7	
2		152	20	17	61	86	32	368
same city (<= 10km)		41.3	5.4	4.6	16.6	23.4	8.7	25.0
		36.4	37.7	25.8	23.2	17.4	17.9	
3		113	19	14	79	146	44	415
same region (<= 30km)		27.2	4.6	3.4	19.0	35.2	10.6	28.2
		27.0	35.8	21.2	30.0	29.5	24.6	
4		36	7	20	69	163	52	347
another region (in Switzerland)		10.4	2.0	5.8	19.9	47.0	15.0	23.5
		8.6	13.2	30.3	26.2	32.9	29.1	
5		3	2	11	31	64	30	141
outside of Switzerland		2.1	1.4	7.8	22.0	45.4	21.3	9.6
		.7	3.8	16.7	11.8	12.9	16.8	
Column Total		418	53	66	263	495	179	1474
		28.4	3.6	4.5	17.8	33.6	12.1	100.0

Pearson Chi-Square = 245.28 (DF 20) p<= 0.01
Number of Missing Observations: 145

Table 3b Crosstabs PDIST x FREQOFF

PDIST geogr. ditance of alter X FREQOFF frequency of offline contacts

PDIST	Count / Row Pct / Col Pct	FREQOFF frequency of offline contacts: never (0)	less (1)	one to several times per... year (2)	month (3)	week (4)	day (5)	Row Total
1		1	5	5	33	75	84	203
same quarter		.5	2.5	2.5	16.3	36.9	41.4	13.8
(<= 1km)		.4	4.7	2.8	11.9	17.2	42.4	
2		17	14	43	62	194	38	368
same city		4.6	3.8	11.7	16.8	52.7	10.3	25.0
(<= 10km)		6.2	13.1	23.9	22.4	44.5	19.2	
3		53	19	30	112	130	71	415
same region		12.8	4.6	7.2	27.0	31.3	17.1	28.2
(<= 30km)		19.2	17.8	16.7	40.4	29.8	35.9	
4		125	50	67	66	34	5	347
another region		36.0	14.4	19.3	19.0	9.8	1.4	23.5
(in Switzerland)		45.3	46.7	37.2	23.8	7.8	2.5	
5		80	19	35	4	3		141
outside of		56.7	13.5	24.8	2.8	2.1		9.6
Switzerland		29.0	17.8	19.4	1.4	.7		
	Column Total	276	107	180	277	436	198	1474
		18.7	7.3	12.2	18.8	29.6	13.4	100.0

Pearson Chi-Square = 721.68 (DF 20) p<= 0.01
Number of Missing Observations: 145

Table 4 Typical network graph of a chat user

The network graph is available at
<http://soz.unibe.ch/forschung/ii/virtgifs.html>