

Real Worlds, Virtual Worlds - Applying sociometry into online chatrooms

Adelina Silva, Universidade Aberta, Portugal

Abstract

We often hear and read sentences like: the way people interact is not as before; the multimedia society where we live is changing the nature of the human being; the use of the Internet in the daily life of the individual makes him isolated of the rest of the community; the technological evolution pushes the individual for the ghetto of the techno-cyberculture, without any values.

We live imbued and enclosed by an interconnected world. The power of communication lies in the fact to make it in real time, of immediate and simultaneous form, independently of the geographical distance. The technological and social advances allow the birth of a social platform of communication, in which communication is possible in the most varied expressions.

This is a exploratory research comparing two groups (16-17 years old), who interact frequently off and on-line (real and virtual world), from an anthropological point of view, using sociometric techniques. The purpose is to verify if their impressions of the other(s) and their behavior, as well, changes while interacting on-line.

Keywords: cyberculture, cyberspace, on-line and off-line sociability, sociometry

1 Introduction

It is said that the increasing integration of the computer and the Information and Communication Technologies (ICT) in the society, community or group provokes a cultural and structural change. These times of change are reflected in the daily life of individuals - elements that constitute, keep and reproduce a community or society. Words as space, community, world, are now used in the plural. We no longer live in one space alone, in one community or one world, but we are co-inhabiting spaces, communities, worlds. Side by side to the physical space, real community and/or real world, comes along the cyberspace, the virtual community, the virtual world.

Nevertheless, the ICT has been seen as a panacea for the progress and for the production of wealth. These transformations seem to us unquestionable in several levels of activity, namely the social one – teaching, business, etc... However, it seems debatable that the technology, *per se*, is the only reason of social changes. The biggest change is observed in the new forms of human interaction, through the overcoming of the limitations imposed by time and by space. This turned in a series of implications in the everyday life of the individuals, specially in what concerns the forms of communication.

2 Communities - Real and Virtual

The cyberspace is reported with the theories of community if understanding how a social emergent, such as space the suburbs of a city. It is a social alternative space where there are individuals who work, they play, buy, are, speak, learn, etc., in a determined form and in specific places. We can, also, be owners of space, during the time that we want or be able, we can visit a city or a friend, and finally, we can also be lost and completely disoriented. But, as in the real world, we can always turn home or to the starting point.

In which principals are the communities based on?

Typaldos (2000) presents twelve: the communities, so that they can be considered as such, will have an objective, an identity, there will be communication, confidence, reputation, an obvious formation of groups, boundaries, government, exchange or commerce, expression and history.

Then if so it is, will there be some difference between the real and the virtual communities? Aren't the virtual communities real? What distinguishes them?

Primarily, it is the technology and the media involved: the computer and the access to the Internet.

Let's not forget that the individuals build his lives in small groups: initially in the family, then in the groups of friends, in the groups of colleagues of work and others. The nature of the small groups is in giving "a body" to the face-to-face communication using facial expressions, physical gestures, tone of voice, accent and rhythm, printing a communicational richness quite difficult to reproduce in electronic context. In fact, what seemed impossible to overcome, is not at all, due to the inventive capacity and creativity of Man. So, in context of Communication Mediated by Computer (CMC), namely in Chatrooms, through the *smilies* and other graphic forms, one assists to countless ways of informing the other of our accent, tone of voice, facial expression, rhythm, etc. The juxtaposition of spaces establishes a new scenery of social relations. I.e. a change of our social forms is shaping the social space and its rules in a new space, new society, another perception and world construction (Galindo, 1997). But can we speak of new types of association, new relations of communicative interaction, new forms of building common perceptions? Can a virtual community be structured in a new type of organization? How is, through a virtual space, constructed the symbolic capital?

In fact, are the real (physical) communities so different from the virtual communities? Are the groups formed and living in these communities structurally different? How does one build a community? We need to understand what it is a community and what happens when it is on-line.

It is easy to think that off-line (real) and on-line (virtual) communities are different, therefore impossible to establish a comparison. But, what supports this? The geographical distance? The absence of physical language? The available media? Is it that communication in bits and bytes hasn't the same immediate effect of the communication in presence?

The disposal of the on-line communities resources may be different, nevertheless the form of communicating is basically the same. The virtual communities need confidence, identity, leisure zones, such as in any real community. The only difference lies in the space of meeting of the individuals. Here, on the contrary of the real communities, it is allowed that in the same context can communicate much-with-many.

3 Some methodological thoughts

For the cybernaut, space is an irrelevant subject. Though it is something important for the real world – without physical space there would be no real world – would be interesting to investigate, which rituals return to an internaut the control of the physical space (Picciuolo, 1998). Another line of investigation would be in which way the virtual space will be able to produce actions in the real world.

Escobar (1994) identifies several ethnographic domains, that make possible several lines of investigation on the cyberspace – particularly the virtual communities. In effect, we wonder: where can we find a field where it is possible to study simultaneously the construction of individual identities and the interpersonal relations, on a side, and the most spacious social formations, like the communities, for other? Besides, to take into account the interaction at several levels, which they allow to articulate and to structure a community, it would be necessary to find one that was combining an existence online and offline.

It is clear that to carry out an anthropological investigation in, on and through the cyberspace we need to adapt the methodology of the ethnographic investigation. It seems that the cyberspace context is a field of study where we will be able to analyse the interaction of the individuals and the creation of the so-called cyberculture. More, another anthropological subject of investigation is attached to the repercussions and transformations cultural-partner whom the ICT and this new virtual world is in the real world of some users. The question is, in the sense of knowledge, to know if the concepts normally used in the ethnographic work in the real world can also be applied in the virtual scenery.

Picciuolo (1998) thinks that the anthropology can contribute to the study of a new space, where new rules are produced and where, for the first time, there is a multi-ethnic generalized contact. Besides, the observations themselves of the investigator can be considered as an act ethnographic at the same level of the actions and of the speeches of the informants in the cyberspace. On the other hand, the anthropology has to say very much about the rites of passage of the users of the net, besides to allow a permanent and generalized interchange of different sights of the world.

It is clear that there is the difficulty of delimiting the object of study, because the study of the forms and demonstrations of the presence is an area of relevant work for the ethnographers, as those reveal raw material of the social relations supported by the CMC (Planells, 2002).

Individuals and communities are fixing their attention in different facts divergent of the traditional ones. A reality, where the physical space stops being important, where the physical image is no longer necessary for the social relations.

The anthropologist has to know new codes and languages and their meaning – expressions, rituals, *emoticons* and *acronyms*-, which are produced in the cyberspace during social interactions. He has to pay attention to the propitiating sociability of a meeting between the real world and the virtual world, through social agreements. These agreements are the interface between the real world and the cyberspace.

Nevertheless, the Internet field work – virtual world – has different characteristics from those of the real world. The social nets are based on the roles of the intervenient, which may vary according to the context in which they interact and the intentionality that is put at this moment and space. It seems that in the cyberspace, the nets spread, create and recreate in a continuous process, where the factors controlled by the investigator are more unpredictable than those in the real world. In the chatrooms, i. e., his presence and participation can model and interfere with virtual fact itself from the moment his nick appears in the monitor.

As Picciuolo (1998) affirms the important thing in the anthropological investigation of the cyberspace, more than the model of investigation to apply, will be to test our ideas and tools we conceptualize, our experience in the observation of the conducts and cognitive aspects of the human being in a new environment.

Therefore, it seems that the anthropology disposes of the theoretical and methodological tools appropriated for the understanding of the new sceneries, like science of the diversity and of the communications.

4 Problematic

Baring in mind all these facts and after a deep thought about the whole involving issues, we intended to present a work that enables to demonstrate the difference (or similarity) both structural and organizational of a group of individuals in a real community and the same group in a virtual community, in context of IRC, particularly in a chatroom, applying a sociometric questionnaire. The work what we developed has its principal object of study the interpersonal relations that are established in a virtual community, particularly the relations that are established between young persons in a chatroom. Taking in consideration the idea of real community, i.e. in a physical context and in presence of the interlocutors, the existent parallelism claimed that knowledge between these two communities – real and virtual. There are some studies on the virtual relations, on the motivations and identity(s) of the users of the chatrooms, on the anthropological structures in the cyberspace. Although, we wanted to understand which alterations took place, in fact, in

the formation of friendships, in the relations of proximity, in the interactions with the couples, during the process of transition. The question we put ourselves was if this process would implicate alterations in the final organization of the group, and if the idea one has of the other and, consequently, the way one is thought of the others, could lead to alterations in the final structuring of the communities.

5 Methodology

Due to the study in question, which was carried out in real space as in virtual space, we tried to use methods of investigation, that were simultaneously handled in a real space and cyberspace.

Centered in the problematic of the virtual communities, particularly in the chatrooms, and from an antropossocial point of view, we intended to explore, through questionnaires and sociometric techniques, implemented after, at least a month in real world interaction and three months of interaction in the chatroom, and sociograms, the structure of a group of individuals in a real world community, with the same group in a virtual context, hidden behind its masks - nicknames.

We begin by approaching the students of a particular school, in northern Portugal, in to select a group of individuals, who fulfilled these conditions:

- to have a personal computer with access to the Internet and the software mIRC;
- to be a group of friends or knowing each other in the real world.

These conditions, especially the first one, limited enough the field of action, since we verified that of 350 students, only a few satisfied the first condition.

We've studied two groups of 9 and 10 participants - the group A and the group B, respectively - which participated in the regularly in 12 sessions of IRC, in two hours session, at least once a week. The group A was constituted by 10 students of the 12th grade; the group B was constituted by students of the 11th grade. Both had elements of the masculine and feminine sex, between the 16 and 17 years, originating from several villages of that region. They all knew each other and attended the same classroom in school.

We've created a channel of chat, registered, to which we gave the name of *#Tons*. The name was chosen for many reasons: first, *Tons*, it is the name of a coffee, nearby the School, where normally students meet themselves; second, appealing to a metaphor, meaning a cultural, social, musical, ideological diversity, etc¹.

During the process of creation and register of the canal, diverse steps had been followed:

1. to register a nickname;
2. to verify if the channel that we intended to create, still didn't exist (it existed about twelve thousands registered channels in the Ptnet²).

¹ *Tons* is a portuguese Word, that means "tones".

After several proceedings, which were followed, through several indications of the official site of #Pthelp, AMPS became Op (@AMPS), as the Administrator of the channel. To be Op means to be able to manage the channel, namely to change the topic of discussion, to prohibit advertisement messages, to limit the number of participants in the channel, etc.

In parallel and in another extent the sociometric questionnaire was elaborated, bearing in mind the age of the individuals (16-17 years).

With the intention of valuing four slopes of the interpersonal relations – recreational activities, authority or respect of the group, organizational capacities and to feel comfortable in public – there were prepared eight questions (four for positive elections, four for negative elections). The same questionnaire was administered in two phases of the evaluation. We have also used SociometryPlus 2.0 software.

During the virtual sessions, we used the participant observation, which allowed us to "look" at the process of interactions that had place in the virtual environment and still to share the roles and the habits of the group, as a mean to observe facts, situations and behaviours, that would not take place or that might be altered in the presence of strangers. The context of the investigation, being in particular media, demanded some knowledge of the place and of the underlying culture.

As in all the societies, communities and cultures, the cybernetic culture created several types of rituals, language and codes. The insertion of the investigator in this virtual society implicates the apprenticeship of these codes (the *netiquette*). It is necessary to learn to use specific programs to do determined proceedings, so that we coexist in the virtual world in confident way, learning to do what all do – as in any process of participant observation. It is an interesting fact that, in many cases, is possible to observe without participating, for example in forums, or even in public chatrooms (as lurker or voyeur). However, the investigator will be limited in his work, if he doesn't dominate the code easily and probably will not understand what constitutes this culture so full of new forms of relationships. Both situations (real and virtual context) rely on the fact that the formation of impressions of the others is based on the communication (verbal and not-verbal).

Let us point out that the subjects of conversation in the virtual world might be the same – and probably are – of the real world. In fact the most discussed and commented subjects were attached normally to the School – students, teachers, disciplines, activities. In other words, in fact the real context was always referred in the virtual context. More, in virtual context the intervenient were communicating hidden behind a mask – nickname-, never used previously, that nobody knew «who was who», except the investigator.

To compare the results, we applied the statistical formula of the Qui-square and of the Correlation of Categories.

² Ptnet is the portuguese IRC Net, composed by 27 servers.

6 Discussion of Results

This investigation resulted the following: few alterations took place in the organization and structure of the groups A and B.

a. Group A ³

Table 1: Statistical Results of Group A

Variables depending on the response Positive (+) e Negative (-)	Observed vs. Expected Frequencies	Correlation of Categories
R1+ V1+	Chi-Square = 6,25000df = 8 p < ,619251	0,625
R1 - V1 -	Chi-Square = 6,83333df = 8 p < ,554718	0,746
R2+ V2 +	Chi-Square = 10,25000 df = 8 p < ,247920	0,071
R2 - V2 -	Chi-Square = 4,533333 df = 8 p < ,806088	0,579
R3+ V3+	Chi-Square = 18,75000 df = 8 p < ,016258	0,625
R3 - V3 -	Chi-Square = 5,583333 df = 8 p < ,693791	0,358
R4+ V4+	Chi-Square = 17,30000 df = 8 p < ,027135	0,217
R4 - V4 -	Chi-Square = 10,83333 df = 8 p < ,211328	0,579

b. Group B

Table 2: Statistical Results of Group B

Variables depending on the response Positive (+) e Negative (-)	Observed vs. Expected Frequencies	Correlation of Categories
R1+ V1+	Chi-Square = 15,80000 df = 9 p < ,071182	0,2000
R1 - V1 -	Chi-Square = 6,000000 df = 9 p < ,739917	0,6848
R2+ V2 +	Chi-Square = 20,83333 df = 9 p < ,013413	0,5758
R2 - V2 -	Chi-Square = 16,50000 df = 9 p < ,057151	0,5152
R3+ V3+	Chi-Square = 10,57143 df = 9 p < ,306236	0,2697
R3 - V3 -	Chi-Square = 5,300000 df = 9 p < ,807410	0,3300
R4+ V4+	Chi-Square = 16,33333 df = 9 p < ,060243	0,2667
R4 - V4 -	Chi-Square = 11,78333 df = 9 p < ,225807	-0,1800

Note: R – Real Group
V – Virtual Group

1 – Authority or Respect
2 – Organizational Capacities

3 – Comfort in Public
4 – Recreational Activities

The virtual context, not having a physical presence marked by the glance (face-to-face), is a propitiating context of confidences. In fact, we come across, for times, situations of revelations only possible in virtual context; in the real world, they were never named or commented, much less boarded by the one who made them.

The results allow us to conclude that, in fact, few alterations take place in the organization and structure of the group. The statistical tests that compared the results of the two phases demonstrated that, in general, the changes were not significant.

The results obtained in two groups were not coincident. The group A presented changes in the variable 3 – comfort in public (positive choice) – and in the variable 4 – recreational activities (positive choice); in the group B, only in the variable 2 (positive choices), presented a significant difference.

This fact could be explained to the comfort in using the technology– for example, the fact of a few, are more regular visitors of the chatrooms than others, and because of being hidden behind a mask – nicknames-, people could feel more uninhibited. On the other hand, we should not forget that another fact can contribute to the formation of impressions in virtual environment: the ability to write using a keyboard, to dominate the language, and especially the fact of not being in presence of a physical body – first factor of the formation of impression in real context.

Finally, it seems also important that in fact the objective of each individual is to be accepted by other(s), therefore everything said or done in this context will have repercussions not only in this context, but also in real context,– all the individuals knew each other in the real world.

Before the comparison of the results it seemed to us that there is, in fact, a change in the social relations – interpersonal – between the individuals, especially as they interact – what they say, how they say it, why they say it, when they say it. However, it does not seem to us that this new form of communication could interfere deeply in the structure and organization of the nets of interpersonal relations, for the causes already pointed out previously.

Conclusion

History has been demonstrating us, that Man has been adapting himself to the technological innovations, allowing that of the distance is no longer distant and that the yesterday and tomorrow is now, bringing together individuals, of any point of the planet, of any race, sex, culture, age, joining them by a communion of interests, ideas, beliefs, values, which are not circumscribed to space and time.

Sartori (2000) says that any technological evolution provokes fears, negative foresights on its effects – as it happened with the radio and television – and on the consequences produced at the human relations.

Nevertheless, it seems to us that these catastrophic fears are unfounded, as soon as the man maintains a balance between the technological and the social sphere - essential for the human survival.

It's time of the school to appropriate of this new tool, which fascinates the young. Of this embryonic and exploratory research a certainty lies: a deepened research of the use of the Internet, particularly the chatrooms and its potentialities, is necessary, in particular, the relation between students, teachers, parents and community in general.

References

Baym, Nancy (1995), **The Performance of Humor in Computer-Mediated Communication**, Journal of Computer-Mediated Communication 1.2 , <http://www.ascusc.org/jcmc/vol1/issue2/baym.html>

Escobar, Arturo (1994), **Welcome to Cyberia**, Current Anthropology, vol. 35, nº 3

Faura, R. (1998), **La Cultura Local en el ciberespacio**, <http://www.naya.org.ar/congresso>

Faura, R. (2000), **Cibercultura, ¿realidad o invención?**,
http://www.naya.org.ar/congreso2000/ponencias/Ricard_Faura.htm

Galindo, C. (1997), **Comunidad Virtual y Cibercultura**, Epoca II, vol III, nº 5, Colima Rheingold, Howard (1995), **Virtual communities - Homesteading in the electronic frontier**, <http://www.rheingold.com/vc/book/>

Kotha, Suresh, Wadhwa, Anu (1999), **A Note on Virtual Communities**, University of Washington
Laurel, Brenda (1991), **Computers as Theatre**, Addison-Wesley

Martinez, Sergio López, Figueroa, Maria E. Vargas (2000), **Internet como Medio y Objeto de Estudio en Antropología**, <http://plazamayor.net/antropologia/archtm/internet/>

Picciuolo, J.L. (1998), **Dentro y fuera de la pantalla, Apuntes para una etnografía del ciberespacio**, <http://www.naya.org.ar/congresso>

Planells, Joan Mayans (2002), **Nuevas Tecnologías, Viejas Etnografías - Objeto y método de la etnografía del ciberespacio**, <http://cibersociedad.rediris.es>

Planells, Joan Mayans (2000), **Género Chat Ensayo Antropológico sobre Socialidades CiberTextuales**, Observatorio para la CIBERSOCIEDAD, <http://www.ub.es/antropo/ciber/gc-index.htm>

Rheingold, Howard (1996), **A Comunidade Virtual**, Gradiva, Lisboa

Sartori, Giovanni (2000), **Homo Videns**, TerraMar, Lisboa Wellman, Barry (1996), **An Electronic Group is Virtually a Social Network**, in Kiesler, Sara (ed) (1997), Culture of the Internet, Lawrence Erlbaum, Hillsdale, pp 179-205

Typaldos, C. (2000), **Shared Knowledge and a common Purpose: Using the 12 principles of civilization™ to build web communities**, <http://www.RealCommunities.com>

Wellman, Barry (2001), **Physical Place and CyberPlace: The Rise of Personalized Networking** http://www.chass.utoronto.ca/~wellman/publications/individualism/-N_1 ,
<http://www.chass.utoronto.ca/~wellman/publications/individualism/ijurr3a1.htm>

Wellman, Barry, Gulia, Milena (1999), **Net Surfers don't ride alone: virtual communities as communities**, in Communities and Cyberspace, Kollock, Peters, Smith, Marc (eds), Routledge, New York

Wellman, Barry, Hampton, Keith (1999), **Living Networked in a Wired World**, Contemporary Sociology, vol. 28, nº 6, <http://www.chass.utoronto.ca/~wellman>

Wellman, Barry, Wortley, Scot (1990), **Different Strokes from Different Folks: Community Ties and Social Support**, University of Chicago, <http://www.chass.utoronto.ca/~wellman/publications/index.html>