

# Online Chat Rooms: Virtual Spaces of Interaction for Socially Oriented People

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## ABSTRACT

The internet has opened a new social space for communication. The present work studies interpersonal relationships in cyberspace using the chat channel as an interaction medium. Data obtained have outlined the sociodemographic and personality profile of internet users who engage in online chats as well as group self-perception, chatters' use habits, motivations to interact online, and the chatters' network of virtual and face-to-face relationships. Results suggests that relationships developed online are healthy and a complement to face-to-face relationships. These data are confirmed by personality studies. The theoretical and methodological implications of data are discussed.

## INTRODUCTION

THE INTRODUCTION of new communication technologies in daily life has yielded new social practices. Cyberspace has become a new meeting point in which time/space boundaries are blurred, and interaction prevails over linearity in communication processes. The internet, cyberspace *par excellence*, has become a social technology<sup>1,2</sup> that allows people to meet their individual and social needs.<sup>3-5</sup>

When people have more social contact, they are happier and healthier both physically and mentally.<sup>6</sup> Individuals seek to begin and maintain interpersonal relationships usually face to face. Cyberspace and its relational possibilities are changing the way satisfactory relationships are conceived even among people who have never met physically. As Del Brutto<sup>7</sup> has pointed out, entering of the internet in the private sphere has represented a revolution in users' lives. Internet relay chat (IRC) is one of

the origins of this change. IRC is a multi-user, multi-channel chatting network that allows people all over the internet to talk to one another in real time (with no physical or visual contact) on a text-mediated basis. Although relationships developed through the internet have been described as typical of the bored and the lonely, the body of evidence points mainly to the contrary.<sup>8</sup>

Interpersonal studies tend to conclude that face-to-face relationships are the richest from the communication viewpoint and that all other forms of relationships are of a more limited nature in comparison. This bias has prevented a fair assessment of any other types of relationships, which may be different, better, or worse.<sup>8-10</sup> Online chat relationships provide new opportunities for social contacts; unfortunately, this new realm has not received the attention deserved yet.

Online chat rooms are a meeting point that allows people to communicate with other

people otherwise inaccessible. This environment represents a sort of alternative pub among the different socially oriented scenarios that boost interpersonal contact—a virtual realm displaying the distinctive attributes of a new communication code. As a consequence, chat users have developed their own language, a language where speed prevails over correct spelling, contributing thus to a greater interactivity. Chatters have also set their own way of expressing their personal identity with a nickname and their mood with the so-called emoticons: a series of ASCII text characters in synchronous communication expressing smiles :-), sadness :-(, and complicity ;-).

Empirical evidence confirms that interpersonal communication is the dominant use of the internet.<sup>9</sup> People's reasons to initiate and maintain interpersonal relationships vary. Regardless of personal reasons, social reasons may also induce people to seek social contacts through communication media that meet the motivating conditions. One of the factors leading to beginning and maintaining socially satisfying relationships lies in the familiarity principle.<sup>11,12</sup> This principle suggests that we find people who we are familiar with nicer, more friendly, and more trustworthy; since the familiarity effect does not necessarily involve direct interaction, people can find in online chats a means to satisfy their need for social contacts with friendly people, at least at the beginning of the interaction. One can access an online chat room without actually saying anything just listening to conversations, until one becomes familiar with a number of chat users. Listening/reading conversations facilitates the formation of impressions<sup>13</sup> about other people's personality and values through the exposure effect. Interaction increases the feeling of niceness attributed to other people.<sup>14</sup> The familiarity effect, the frequency of interaction, or the nickname's appeal contributes to find people nicer. Chatters remark that virtual friends are as familiar as face-to-face friends.<sup>15</sup> Online chats allow the identification of the nicest people so that one can choose how and when to interact with them without necessarily having to be exposed. It is a personal option that reinforces the feeling of self-sufficiency. This minimizes efforts and social risks during the interaction.

An element to be taken into account to maintain interpersonal relationships, whether face-to-face or online, is the perceived quality of the satisfaction in the relationship with another person. The internet facilitates the development of relationships,<sup>16</sup> but this does not necessarily imply satisfaction. There is a wide range of possibilities as far as internet relationships are concerned such as short online chats, long-lasting friendships, or love affairs that can remain in the virtual world or can be transferred to the real world.<sup>7,17,18</sup> Studies show that most relationships developed online are weak.<sup>9,19</sup> This conclusion implicitly compares online and face-to-face relationships, but it does not take into account that people begin and maintain social contacts both in the physical and the virtual realm alike. Nevertheless, a reciprocal feeling of well-being had to be generated during the interaction in order to develop a deep relationship. Satisfaction determines the duration and intensity of a relationship, and its consolidation will imply more frequent social contacts.

The rapid growth of online phenomena has triggered the appearance of social stereotypes regarding the internet users' social profile and personality. Tendencies and interpersonal behavior are closely related to personality attributes.<sup>20,21</sup> Therefore, research about the personality of the Internet users becomes crucial to study interpersonal relationships in the cyberspace. Eysenck personality model proposes three basic dimensions<sup>22,23</sup>: psychoticism (P), extraversion (E), and neuroticism (N). People with high scores in P are impulsive, hostile, and creative; those with low scores in P are selfless, friendly, and empathic. Extraverts (high E) are known to be cheerful, sociable, and active, whereas introverts are reserved, quiet, and submissive. People showing high scores in N are shy, anxious, and depressive, whereas those with low scores in N are stable, relaxed, and even-tempered.

It is generally assumed that people who enter cyberspace to form interpersonal relationships generally show greater difficulties in social face-to-face situations. They are considered shy and anxious people who have to hide behind a computer screen to be able to interact socially. These people would fit into the

N category. Yet, from the theory of personality, people showing low levels of anxiety and who are socially bold are more likely to use any means available, including the Internet, to meet their social needs. Extraverts would be expected to use online chats to strike up new acquaintances given their high levels of sociability. Extraverts seem to know best how to interact with other people. On the other hand, P's personality characteristics do not seem relevant to online chatting. In any case, given that high P scores are known to be high sensation seekers,<sup>24</sup> cyberrelations could represent a novel and highly appealing source of stimulation for them. In a previous study, Kobayashi et al.<sup>25</sup> found a positive correlation between social skills and interpersonal orientation with the formation of face-to-face relationships, but the correlations were lower regarding the formation of online relationships.

Hence, it would be useful to make an in-depth analysis of cyberrelations and the social and personal attributes of individuals who have incorporated this new communication vehicle to their relational world. The present work aims to conduct an exploratory study to get some insight into cyberrelations examining sociodemographic and personality profiles of online chatters.

## MATERIALS AND METHODS

### *Participants*

The sample of online chatters was composed of 66 people, 34 men (51.5%) and 32 women (48.5%). Ninety-seven percent of them declared themselves heterosexual, and 3% homosexual. The average age of men was 34 (SD = 10.77) and of women was 29 (SD = 8.86) years, ranging mostly between 21 and 40 (68.2%) years. A total of 30.3 percent were unmarried but had a partner, 31.8% were single and had no partner, 31.8% were married, and 6% were separated; 74.3% were Spanish and 24.2% were either European or Latin-American; 12.3% had primary-level education, 35.1% had secondary education level, 12.3% had an undergraduate certificate, and 40.4% had a university degree; 45.1% were employ-

ees, 7.7% were managers; 26.6% business owners, 15.4% full-time homemakers, and 1.5% of them were between jobs.

A second sample was composed of 149 psychology students who answered the personality tests (EPQ-R and the Adjective List). Of the student sample, 38 of them were men (age average 22.68, SD = 5.06 years) and 111 women (age average 22.20, SD = 3.89 years).

### *Measures*

*Online Interpersonal Relationships Questionnaire (Inter.red)*. A specific questionnaire was devised for the purpose of this research. The novelty of this field did not allow us to adapt any existing questionnaire. Consequently, the Inter.red was created following a rational strategy of construction. This questionnaire includes both quantitative and open response qualitative variables. It explores the attributes of face to face personal and social relationships by asking details about motivations, use habits, aspects ruling cyberrelations and group self-perception. The result is a comprehensive questionnaire that can be accessed at [www3.uji.es/~rperis/cuestionario\\_in.htm](http://www3.uji.es/~rperis/cuestionario_in.htm). Chatters accessed the URL to answer the questions online and then data were transferred to the researchers' e-mail address. The main variables of the questionnaire are as follows:

1. Time, location, and medium: multiple choice quantitative variables
2. Description of cyberrelations: variables consisting of dichotomic items and open response items
3. The relationship quality index: comprises three variables embracing different aspects of quality in romantic relationships. These variables stem from responses obtained in the questionnaire. The first variable is about satisfaction with one's partner. The second variable rates mutual understanding or rapport within the couple. This variable includes items about satisfaction at communicative, sexual, and social levels. The third variable refers to cognitive affinity. This latter variable is composed of items related to agreement in the upbringing of children, sharing beliefs and values. A Prin-

principal Component factor analysis using Varimax rotation confirmed the internal consistency of the three variables. We have named this factor quality index in couple relationships. This factor explains 71.3% of the total variance and presents an alpha of 0.80. The questionnaire asked respondents to provide subjective self-reports on a seven-point scale from 1 (highly satisfactory) to 7 (highly unsatisfactory).

4. Use motivation: multiple choice quantitative variable. It includes chatting (about work, hobbies or any subject), experimenting in a new communication media, socializing needs (to abate shyness and loneliness), seeking to initiate friendships, engaging in sex, or finding a partner.
5. Quality of reality in cyberrelations (both friendly and romantic) compared to face-to-face: multiple choice variable. Chatters must choose between the following possibilities: "I consider virtual relationships as important or less important than face to face relationships" (real quality) or "I consider virtual relationships a fantasy" (unreal quality).
6. Group self-perception: qualitative variable collected from two open-ended questions: "Describe the most outstanding features of online chatters in order of representativity (chatters' profile and what they seek)."
7. Comparison of online and face-to-face relationships: qualitative variable from the open question: "As far as you can tell, describe how online relationships are like?"

### *Personality assessment*

An eight-item factor-analyzed bipolar Adjective List (AL) has been used to assess personality. It comprises eight items grouped in three scales related to the Eysenck personality factors. In order to verify that the AL was a good measure of these three dimensions, convergent validity was established in the psychology student sample. The personality questionnaire used for the convergence analysis was the Spanish version of the Eysenck Personality Questionnaire-Revised (EPQ-R).<sup>26</sup> The EPQ-R assesses psychoticism (P), extraversion

(E), and neuroticism (N) dimensions, together with a dissimulation/conformity scale (L). Reliability of P is 0.76 for men and 0.76 for women; that of E is 0.82 and 0.80 for men and women, respectively, and that of N is 0.86 for both genders.

The convergent validation analysis yielded the following results: a principal component analysis using Varimax rotation resulted in three factors (extraversion, neuroticism, and psychoticism). The items in each scale showed high loadings in its corresponding factor. A joint factor analysis of the AL and the EPQ-R showed how the three extraversion items grouped around the E scale, the three neuroticism items grouped around the N scale and the two psychoticism items around the P scale of EPQ-R respectively. The correlation between the extraversion scale of the AL and scale E of EPQ-R was 0.73 ( $p < 0.001$ ), between the neuroticism scale and N was 0.52 ( $p < 0.001$ ), and between the psychoticism scales and P was 0.46 ( $p < 0.001$ ). As usually happens with the Eysenck scales, the present study showed no significant gender differences in the extraversion scale. Women rated slightly higher in the neuroticism scale and men rated higher in the psychoticism scale.

Each item of the AL includes a main bipolar adjective and several descriptive adjectives or short sentences. Items allowed participants to respond to a scale ranging from 1 (strongly agree with the adjective placed on the left) and 4 (strongly agree with the adjective on the right).

The three AL scales are as follows:

- *Extraversion scale*: Made up of three items (RESERVED: serious, thoughtful; OPEN: warm, communicative; RESTRAINED: controlled, austere; ENTHUSIASTIC: lively, headstrong; DISTANT: retiring, unsociable; SOCIABLE: outgoing, bold), alpha reliability of this scale was 0.77.
- *Neuroticism scale*: Also made up of three items (UNSTABLE: touchy, moody; EMOTIONALLY STABLE: even-tempered, tranquil [reversed]; INSENSITIVE: realist, self-confident; SENSITIVE: emotional, low confidence; CALM: relaxed, unwor-

ried; APPREHENSIVE: worried, uneasy), alpha reliability of this scale was 0.71.

- *Psychoticism scale*: Made up of two items (CARELESS: inattentive, thoughtless; CONSCIOUS: sensible, reasonable [reversed]; ANTISOCIAL: acting against social norms; SOCIALIZED: conformist [reversed]), with an alpha reliability of 0.65.

### *Procedure*

Data were collected between January and March 2000. Several chat rooms were used to collect a sample as varied and numerous as possible. Once data were collected, descriptive exploratory and differential analysis techniques were applied on the specified variables of the Inter.red. A quantitative analysis was also conducted to gain some insight into the subjects' impression about online relationships. We applied the following steps recommended by Pérez<sup>27</sup>:

- Systematic data collection through direct sources
- To establish a data reduction process so that data can be selected, focused, transformed, and simplified
- To synthesize and organize them so that conclusions can be more easily drawn
- To verify results and reflect on them

Finally, once all data was collected, we proceeded to categorize and organize them according to our research goals.

In order to examine the chatters' personality profile, the three scales of the AL scores were compared to the student sample scores. The students' rate of online chatting use was virtually zero.

## RESULTS

### *Descriptive results*

Average time connected to the internet was 14.38 h/week at home and 10.08 h at work. A total of 31.7% of subjects considered that use of

the internet interferes with other activities, whereas 68.3% do not think so; 69.7% are e-mail users, 6.1% also participate in newsgroups, 81.8% are chat rooms users, 81.8% use ICQ, and 9.1% engage in videoconferences.

The questionnaire collected data about the subjects' first four relationships and about the quality of reality in online relationships. Since the individuals' first four relationships show a similar profile, we will only describe here the first cyberrelation. A total of 41.9% out of the 43 subjects considered it was a friendly relationship, whereas 58.1% described it as a romantic relationship (they fell in love); 43.3% of them said they simultaneously had a real-life partner; 30.6% of cases reported that the relationship had lasted up to 6 months, 41.7% said it lasted 1 year; 1½ years in 16.7% of cases, 2 years for 5.6%, 3 years in 2.8%, and 2.8% said it had lasted 4 years; 23.5% of the sample said that the other party lived within a distance of 100 km, that distance was 101–500 km in 32.4%, 26.5% 501–1000 km, and 17.6% more than 1,000 km; 69.7% of the subjects exchanged photographs; 74% of them met offline and 25.6% did not; 22.9% engaged in cybersex and 77.1% did not; 25% engaged in phone sex and 18.8% combined two different cyberrelations.

Data reveal that most internet users describe friendly (70.6%) or romantic cyberrelations (55.6%) just as important as face-to-face relations. A reduced percentage considered these relationships fantasies (17.6% for friendships and 27.8% for romance). The  $\chi^2$  statistical analysis about quality of cyberrelationships compared to face-to-face relationships shows that internet users conceive both friendly ( $\chi^2 = 14.24$ ;  $p < 0.001$ ) and romantic ( $\chi^2 = 7.11$ ;  $p < 0.01$ ) online relationships as a reality and not a fantasy.

Table 1 reflects results of chatter group self-perception.

As it can be seen group self-perception varies, although on the whole they see themselves as people seeking friendship, social networks, and communication. When describing online relationship features positive adjectives prevail, although a few negative attributes also turned up (Table 2).

TABLE 1. QUALITATIVE ANALYSIS OF INTERNET USERS GROUP SELF-PERCEPTION

Profile 1
“Normal people” seeking friendships, socializing, chatting, or meeting new people for entertainment
Lonely people seeking company
Profile 2
Shy people or people with relationship problems seeking love or a relationship
Profile 3
Rude people seeking to annoy other people
Unsteady personalities seeking sex
Profile 4
Researcher seeking information
Bored people seeking fun
Different people seeking sex

On the other hand, a comparative profile emerges regarding face-to-face relationships (Table 3).

#### Differential analysis

Analyses of variance of quality rate on types of cyberrelations were conducted to detect differences in both friendly and romantic cyberrelations. Results show that those who begin and maintain a friendship have achieved a higher quality in their real-life love relationship. The analysis of variance also shows that those who do not engage in cybersex have a higher quality in their real-life couple relationship. To this effect, motivation to chat varies significantly with the Quality Rate. Those who seek to chat show a higher quality in their couple relationship (Table 4).

A differential analysis of the motivations to connect to the internet was conducted following sociodemographic variables. Results show that people seeking a steady partner tend to be single (i.e., having no partner;  $\chi^2 = 7.89$ ;  $p < 0.05$ ) just like people interested in socializing ( $\chi^2 = 15.136$ ;  $p < 0.01$ ). As far as location is concerned, people seeking friendship are mainly

TABLE 3. QUALITATIVE ANALYSIS OF CYBERRELATIONS PROFILE COMPARED TO FACE-TO-FACE RELATIONSHIPS

<i>Significant categories</i>
More open: easier, more straightforward and quicker
More intense: stronger, more intense and rapid falling in love process
More interesting: varied, wide range, relationships allow to experience different dimensions of self

Latin Americans rather than Spanish or European ( $\chi^2 = 21.23$ ;  $p < 0.05$ ).

#### Personality analysis

Table 5 shows the comparison of both samples—online chatters and students—on the extraversion, neuroticism, and psychoticism AL scales. The neuroticism scores show a slightly significant difference in female chatters, who appear more stable (lower neuroticism) than female students. There were no significant differences in extraversion and psychoticism scores. Since the internet users were significantly older than the students, the variable age was correlated with the AL scales in both samples ( $n = 215$ ). The correlation coefficient was low and nonsignificant (extraversion,  $r = -0.09$ ; neuroticism,  $r = -0.04$ ; psychoticism,  $r = -0.04$ ).

## DISCUSSION

The main aim of this research has been to study the sociodemographic profile of the Internet users who engage in online chats in order to begin and maintain relationships. The profile obtained portrays persons satisfied with their real-world social relations and prone to begin and maintain social interaction.

Online respondents report having their social and emotional needs fully satisfied, yet they still express feelings of loneliness. According to data, socializing in online chats is not a way to replace affective or social needs. Some studies support the fact that people use online chat as a means to satisfy their need for interaction.<sup>28</sup> Our results also show that the main motivations to connect to the Internet are seeking conversation, experimenting with a

TABLE 2. CYBERRELATIONS PROFILE QUALITATIVE ANALYSIS

<i>Positive features</i>	<i>Negative features</i>
Friendly	Lack of credibility
Fun	Short lasting
Respectful	Problematic

TABLE 4. VARIANCE ANALYSIS OF THE QUALITY INDEX ON TYPES OF CYBERRELATIONS, ENGAGING IN CYBERSEX, AND MOTIVATION TO CHAT

<i>Variable</i>	<i>Category</i>	<i>Mean</i>	<i>F</i>	<i>Significance</i>
Types of cyberrelations	Friendship	0.2558	6.792	0.0114
	Romantic	-0.3694		
Engaging in cybersex	Yes	-0.9891	5.2519	0.0284
	No	-0.0485		
Motivation to chat	Yes	0.109	4.1115	0.0468
	No	-0.5452		

The higher the mean, the higher the quality index.

new communication media, and initiating relationships with other people.

Results obtained in this study suggest that chat users also fulfill their communication needs through other media. Online chat, as an interactive communication media, emerges as another possibility to satisfy interaction needs. Some people argue that lack of social presence (real presence), results in weaker ties in terms of intensity and depth.<sup>28</sup> For all that, the relevance of real presence maybe is overrated. Our research suggests that people who use online chats are not only perfectly able to fulfill their social needs in the real world, but they consider online relationships as real as face-to-face relationships. Depth and intensity of feelings about getting to know another person

do not seem different, according to data, from those that can be achieved in face-to-face relationships. Our sample of chat users enjoys a deep and wide range of relationships. Chat relationships are not only pleasant,<sup>16</sup> but they can be real and rich.

Lack of real presence could also suggest that people who engage in online chats more frequently have affective and social needs and are afraid of being exposed to face-to-face interaction. However, personality profiles of chat users do not fit that belief. Results indicate that the subjects' basic scores in extraversion, neuroticism, and psychoticism do not match any distinctive personality pattern, although female chatters have been found to have a slightly higher emotional stability (low

TABLE 5. COMPARISON OF INTERNET USER SCORES (N = 66; 34 MALES AND 32 FEMALES) AND STUDENTS (N = 149; 38 males and 111 females) in the Extraversion, Neuroticism, and Psychoticism LA Scales

<i>Adjective List scale</i>		<i>M</i>	<i>(SD)</i>	<i>p</i>
Extraversion	Male internet users	7.97	(3.03)	n.s.
	Male students	8.26	(2.22)	
	Female internet users	8.78	(2.65)	n.s.
	Female students	8.57	(2.04)	
	Total internet users	8.37	(2.85)	n.s.
	Total students	8.49	(8.49)	
Neuroticism	Male internet users	6.13	(1.80)	n.s.
	Male students	6.15	(1.92)	
	Female internet users	6.26	(2.19)	<0.05
	Female students	7.20	(2.07)	
	Total internet users	6.19	(1.99)	<0.05
	Total students	6.95	(2.11)	
Psychoticism	Male internet users	4.61	(1.65)	n.s.
	Male students	4.85	(1.42)	
	Female internet users	4.00	(1.41)	n.s.
	Female students	4.15	(1.27)	
	Total internet users	4.31	(1.55)	n.s.
	Total students	4.35	(1.35)	

neuroticism). Results show that shyness or emotional instability is not a feature of chat users as a group.

Suler<sup>29</sup> presents an analysis of computer-mediated relations according to which cyberrelations fulfil the self-actualization needs and favor the self-knowledge and personal growth of the Internet users. Data in our study do not permit to achieve precise answers on this aspect, but they point to the fact that chat users seem to find, in online chats, a media for rich, intense, and interesting experiences. Curiously enough, these relationships are not only rich per se but chat users report an intrinsic quality of online chats; the fact that social interaction is set up more quickly and straightforwardly than in face-to-face encounters, conferring chat relationships a genuine character with its own identifying attributes. A deeper insight of chat relationships deserves further research on its own without being compared to face-to-face relationships.

This is an exploratory study; conclusions should be confirmed in further research. Data must be cautiously interpreted; they show signs that cyberrelations do not have the constraints of a media that lacks physical presence. Quite the contrary: results of our research suggest that online chats are an interactive media for socializing and rich in relational nuances that may stimulate rather than inhibit social relations.

This study presents several constraints. In future research, chat users' ratings in the personality scale should be compared to those of nonchatters with similar age and background. Thus, it could be clarified if chat users have a distinctive personality profile. Other issues that deserve further examination are how online chats can help to overcome feelings of loneliness and why some chat users have described cyberrelations as problematic.

Finally, the Inter.red questionnaire needs to be refined in length and variable coding. Its use as a research tool must be complemented by participant-observation qualitative techniques. Direct interaction between researcher and chat user would enrich the psychosocial approach allowing the chat user to speak out and state the relevant qualities of this new phenomenon of cyberrelations.

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