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Liar, liar! An examination of how open, supportive and honest people are in Chat rooms

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Abstract

This research had two aims. Firstly, to examine availability of emotional support in chat rooms, and secondly, to investigate openness and dishonesty in chat rooms. Three hundred and twenty respondents (160 women and 160 men) filled out the 'Chat Room Survey'. It was found that people who spend more time in chat rooms were more likely to be open about themselves, receive emotional support, and give emotional support. Women were more likely than men to give emotional support. Men were more likely to than women to lie, and were more likely to lie about their socio-economic status. In contrast, women were more likely than men to lie for safety reasons. This study challenges some past speculations about online relationships, and argues that future research must consider demographic details more when examining interactions on the Internet.

1. Introduction

Interest in the development of online relationships is becoming increasingly popular. One of the ongoing debates is whether Internet relationships are impersonal and hostile, or whether in fact the Internet offers opportunities for the development of highly intimate interactions. Given that some theorists have argued that physical and nonverbal cues are a necessary channel for communicating emotional intimacy (e.g., Altman & Taylor, 1973), researchers have questioned how intimacy can be achieved in online settings where these cues are absent. While some theorists have claimed that online friendships and romances can be formed in online settings (e.g., Parks & Floyd, 1996; Parks & Roberts, 1998), others contend that Internet relationships are impersonal and can lead to uninhibited behavior, such as flaming (Rice & Love, 1987).

This present study examines interpersonal interactions experienced in chat rooms. It seeks to gain further understanding of these interactions. In particular, this current study is interested in two aspects of computer mediated communication. Firstly, whether emotional support is available in chat rooms. Secondly, how open and honest participants are in chat rooms.

1.1 Emotional support or a cause of depression?

Theorists are divided in opinion as to whether the Internet causes depression or is a source of emotional support. Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay and Scherlis (1998) conducted a longitudinal study, where 73 households (169 individuals) were given free equipment to access the Internet. Analysis of pre and post measures revealed that greater Internet use was associated with increases in depression scores and loneliness. Moreover, initial depression and

loneliness did not predict subsequent Internet use. Hence, these researchers concluded that the Internet is a causal factor in depression. Contrary to these findings McConatha, McConatha and Dermigny (1994) reported in their study of 14 nursing home residents that after using the online services for six months, the participants were less depressed. Bier, Sherblom, and Gollo (1996) revealed similar results in their study that examined the impact of the Internet on lower income families. Although a quantitative measure of depression was not employed, it was clear that the participants' sense of social and psychological well-being had increased during the experiment. In fact so much so, that when it came time for the participants to return the computer equipment many refused, stating that this would mean the loss of their newly formed identities, friends and communities.

A limitation of all of the above studies is that they have not accounted for the different modes of communication available on the Internet (e.g., synchronous communication such as chat rooms, and asynchronous such as emails and newsgroups). In the absence of this recognition, we cannot confidently draw a conclusion from any of these studies. This present study attempts to redress this problem. Although it does not attempt to investigate availability of emotional support in all forms of communication online, it does examine emotional support in chat rooms.

1.2 Open and honest or deceptive liars?

Some theories, such as 'the social presence theory' and/or 'the social context cues theory', argue that as social presence declines, and with an absence of social cues, relationships become less personal and intimate. In contrast, it has been argued

that this anonymity allows some people in chat rooms to disclose more than they would in face to face relationships (e.g., Whitty & Gavin, 2000, in press).

The Internet has been described as a playground where people like to try on different personalities (Rheingold, 1993). Lea and Spears (1995) report that within MUDS (Multi User Dungeons) gender switching often occurs. These theorists argue that women often disguise themselves as men to experiment with power associated with neutral or male identities. Moreover, they swap genders to avert unwanted attention from men. In contrast, these theorists believe that men pretend to be women in order to experience the type of behaviors often shown to women.

Whitty and Gavin (2001) found in their research that telling 'white lies' provided men with a space to feel safe to be more open about themselves. In other words, the 'white lies' ensured these respondents anonymity, which in turn allowed them to be freer to express more intimate or 'secret' details about themselves. Paradoxically, the women in this study were more likely to lie or withhold details about themselves (such as where they lived), for safety reasons. These women were more concerned about being harassed.

This present study examines further whether people are open and honest about themselves in chat rooms. Participants in this study were asked how open they are about themselves, whether they lie about their age, gender, where they lived, education, occupation and income, and moreover, if they did lie why were they motivated to do so.

1.3 Aims of the study

Aspects unique to chat rooms were accounted for when devising the survey for this study. For instance, it is noteworthy that chat rooms participants can be completely anonymous. They can select their own screen name that will not reveal their true identities or gender. Furthermore, they do not need to disclose their email address. Communication occurs in real time where individuals are free to roam from room to room and chat with whomever they please.

The main aims of this research were twofold. Firstly, to investigate whether chat rooms provide a space where emotional support is available. The second aim was to examine openness and dishonesty in chat rooms.

Rather than simply comparing online and offline experiences, other variables such as age, gender, hours spent per week in a chat room and experienced users were considered. While some researchers (e.g., Parks & Floyd, 1996; Parks & Roberts, 1998) have considered demographics such as length of time using the Internet, age, gender and marital status, there is still a paucity of research available on the different groups of people who access the Internet and their motivations for doing so. Gender differences were deemed important to consider given that past studies have already identified gender differences in dishonesty in chat rooms (e.g., Whitty & Gavin, in press). Age differences were also taken into account, given that while past studies have drawn conclusions about available emotional support on the Internet focusing on discrete age groups (e.g., McConatha et al's research on nursing home residents) few studies have explicitly investigated age differences. The amount of time and experience using chat rooms also should be considered, since it might be that regular users are more likely to use the Internet for different purposes than irregular ones.

2. Method

2.1 Participants and procedure

One hundred and eighty first year social psychology students from the University of Western Sydney were requested to distribute surveys devised by this researcher to one male and one female (all of the surveys were administered face to face, rather than online). They were given two months to find two respondents. Students were not penalized if they did not distribute the surveys, nor were they given credit for the task. Furthermore, to ensure that students did not feel coerced into obtaining respondents, they handed in their surveys in a locked box located in one of the buildings at the university. This procedure was implemented so that students would not feel uncomfortable if they did not hand in a survey in class. Moreover, there would be little motivation to fudge the survey by filling the survey in themselves

Only respondents who use chat rooms were invited to complete the survey. In total, 320 surveys were returned, with 160 women and 160 men completing the survey. The sample ranged from 17-55 years with a mean age of 21.3 years ($\underline{SD} = 6.13$). They were all Australian residents.

In considering the highest level of education achieved by this sample, 0.6% had achieved primary school level, 8.1% high school level, 13.8% school certificate level, 51.2% had completed the higher school certificate (year 12), 8.8% had obtained a certificate, 8.4% a diploma, 7.5% a degree, and 1.6% postgraduate qualifications. According to educational statistics put together by the Australian Bureau of Statistics (1998) this sample can be considered a reasonably good representation of the educational levels achieved by the Australian population.

Participants' relationship status was also obtained. It was found that 87.4% of the respondents were single, 6.6% were married, 3.4% were de-facto, 1.3% were separated, and 1.3% were divorced.

The numbers of hours per week and the length of time respondents have used chat rooms was acquired. It was found that 52.2% of the respondents spend on average at least 2 hours per week in a chat room, 22.5% spend 3-5 hours, 13.8% spend 6-10 hours, 5.6% spend 11-15 hours, 2.5% spend 16-20 hours and 3.4% spend 21+ hours. Moreover, it was found that 9.7% had been using chat rooms for less than a month, 9.4% had been using them for 1-2 months, 17.5% had been using them for 2-6 months, and 63.4% had been using them for over 6 months.

2.2 Instrument

The 'Chat Room Survey' was constructed, which asked respondents about how open, supportive and honest they are in chat rooms.¹ The first section of the survey asked for demographic details. Following this, respondents were asked to rate their answers on a likert scale: 1 = never, 2 = a little, 3 = sometimes, 4 = most of the time, and 5 = always. More specifically, they were asked whether they received or gave emotional support in chat rooms; how open they were in chat rooms compared to offline conversations; whether they lied in chat rooms, and what they lied about; and finally they were asked questions concerning what their reasons were for lying.

3. Results

Several analyses were conducted examining the predictor variables: age, gender, 'hours per week' (the amount of hours per week respondents typically spend in

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¹ see author for copy of survey

chat rooms) and 'experience' (the length of time respondents have used chat rooms). Because age was slightly skewed toward the younger individuals it was divided into two categories: 17-20 years (65% of participants) and 21-55 years (35% participants). In addition, the predictor variables hours per week and experience were slightly skewed. Therefore the categories for hours per week included: 0-2 hours (52% of participants), 3-10 hours (36% of participants), and 11-21+ hours (12% of participants). The categories for experience included: 0-2 months (19% of participants), 2-6 months (18% of participants), and over 6 months (63% of participants).

3.1 Emotional support

Interestingly, 63% of the participants reported that they received at least some emotional support in chat rooms. An analysis of variance was conducted to investigate gender, age, hours per week, and experience differences in receiving emotional support. There was a statistically significant main effect for age $[\underline{F}(1,313) = 7.68, p = 0.01]$, and hours per week $[\underline{F}(2,313) = 17.60, p = 0.00]$. The 21-55 year olds scored higher on receiving emotional support $(\underline{M} = 2.36, \underline{SD} = 1.20)$ than the 17-20 year olds $(\underline{M} = 2.07, \underline{SD} = 1.12)$. Those who spend 11-21+ hours in chat rooms scored higher on receiving emotionally support $(\underline{M} = 2.86, \underline{SD} = 1.29)$ than those who spend 0-2 hours $(\underline{M} = 1.82, \underline{SD} = 0.98)$.

An analysis of variance was conducted to investigate gender, age, hours per week, and experience differences in giving emotional support. There was a statistically significant main effect for gender [$\underline{F}(1,313) = 10.48$, $\underline{p} = 0.001$], hours per week [$\underline{F}(2,313) = 15.22$, $\underline{p} = 0.000$], and experience [$\underline{F}(2,313) = 4.61$, $\underline{p} = 0.011$]. Women scored higher on giving emotional support ($\underline{M} = 2.79$, $\underline{SD} = 1.12$) than men ($\underline{M} = 2.4$, $\underline{SD} = 1.23$). Those who spend 11-21+ hours in chat rooms scored higher on

giving emotional support ($\underline{M} = 3.35$, $\underline{SD} = 1.09$) than those who spend 0-2 hours ($\underline{M} = 2.27$, $\underline{SD} = 1.09$). Moreover, the more experienced users of 6 months or more scored higher on giving emotional support ($\underline{M} = 2.77$, $\underline{SD} = 1.18$) than those who had been using chat rooms for a relatively short amount of time ($\underline{M} = 2.36$, $\underline{SD} = 1.19$).

3.2 Openness

An analysis of variance was conducted to investigate gender, age, hours per week, and experience differences in how open people are about themselves in chat rooms. There was a statistically significant main effect for hours per week [$\underline{F}(2, 313)$] = 12.37, $\underline{p} = 0.00$]. Those who spend 11-21+ hours in chat rooms scored higher on openness ($\underline{M} = 3.11$, $\underline{SD} = 1.26$) than those who spend 0-2 hours ($\underline{M} = 2.37$, $\underline{SD} = 1.26$).

3.3 Dishonesty

An analysis of variance was conducted to investigate gender, age, hours per week, and experienced differences in whether people lie in chat rooms. There was a statistically significant main effect for gender [$\underline{F}(1,313) = 5.40$, $\underline{p} = 0.021$], and hours per week [$\underline{F}(2,313) = 3.14$, $\underline{p} = 0.045$]. It was found that men ($\underline{M} = 3.09$, $\underline{SD} = 1.16$) lie more than women ($\underline{M} = 2.81$, $\underline{SD} = 1.11$), and that people who use chat rooms for 0-2 hours per week ($\underline{M} = 3.06$, $\underline{SD} = 1.23$), were more likely to lie than those who use chat rooms for 11-21 hours per week ($\underline{M} = 2.49$, $\underline{SD} = 1.17$).

An analysis of variance was conducted to investigate gender, age, hours per week, and experience differences in whether people lie for safety reasons. There was a statistically significant main effect for gender [$\underline{F}(1,313) = 4.94$, $\underline{p} = 0.027$], and age [$\underline{F}(1,313) = 7.26$, $\underline{p} = 0.007$]. It was found that women ($\underline{M} = 2.79$, $\underline{SD} = 1.35$) scored

higher than men ($\underline{M} = 2.38$, $\underline{SD} = 1.30$), and that the 17-20 year olds ($\underline{M} = 2.76$, $\underline{SD} = 1.35$) scored higher than the 21-55 year olds ($\underline{M} = 2.27$, $\underline{SD} = 1.26$).

An analysis of variance was conducted to investigate gender, age, hours per week, and experience differences in whether people withheld information so that others would not discover their identity. There was a statistically significant age by gender effect [$\underline{F}(1,313) = 6.03$, $\underline{p} = 0.015$). Younger women ($\underline{M} = 3.00$, $\underline{SD} = 1.33$), scored higher than the older women ($\underline{M} = 2.25$, $\underline{SD} = 1.26$).

Given that the distributions for the dependent variables lying about age, gender, where one lives, occupation, education and income were heavily skewed, it was decided to re-code these dependent variables into two categories: 1 = did not lied; 2 = lied. Logistic regressions were performed (using backward Wald), to investigate gender, age, hours per week, and experience differences in what people lied about in chat rooms. The significant differences are shown in Table 1.

INSERT TABLE 1 HERE

Given that the distributions for lying to make occupation, education and income sound better were heavily skewed, it was decided to re-code these dependent variables into two categories: 1 = did not lied; 2 = lied. Logistic regressions were performed (using backward Wald), to investigate gender, age, hours per week, and experience differences. The significant differences are shown in Table 2.

INSERT TABLE 2 HERE

Overall, a number of significant differences were revealed. Table 3 below presents a summary of all the results.

INSERT TABLE 3 HERE

4. Discussion

This current research highlights some important differences in interpersonal interactions in chat rooms. It demonstrates that we do need to consider age, gender, time spent in chat rooms and experience differences when investigating the formation of online relationships.

Sixty-three percent of respondents received some emotional support from chat rooms. Although this still does not adequately cast light on whether the Internet can cause depression, it does impart that people believe they receive some type of support in chat rooms. This supports the notion that the Internet does offer opportunities for the development of intimate relationships. More importantly, this study found that it is unlikely that intimate relationships are formed instantly, but that rather, with time, emotional support is given and received in chat rooms. This study also found that the more time people spend in chat rooms the more open they are about themselves. Overall, these results suggest that the development of trust, as in offline relationships, is gradual in chat rooms. As in traditional face-to-face relationships, in chat rooms, one needs to spend time becoming familiar with another before they start to disclose personal information about themselves.

Another interesting result was that individuals aged 21-55 years are more likely to receive emotional support than younger people aged 17-20 years. Although future research needs to consider more discrete age categories, these results suggest that we need to consider age differences when investigating the types and quality of interactions developed in chat rooms.

Theorists, such as Stone (1995), have proposed that the Internet offers opportunities for people to break away from traditional stereotypical roles. This study found little support for this notion. For example, the women in this study took up the

traditional role of provider of emotional social support. Research on traditional relationships has found that women tend to be more nurturing and emotionally sharing in relationships than men are in relationships (Wright, 1989). It appears that it is not so easy to escape traditional gender roles.

Noticeably, this study revealed that people who spend the least amount of time in chat rooms per week are more likely to tell lies. This could be for two reasons. Firstly, it may be that these participants do not intend to use chat rooms as a regular form of communication, and instead use them for light entertainment where they can experiment with different roles and schemas. Alternatively, due to lack of familiarity with this mode of communication, these people may not feel comfortable to disclose; however, with more exposure to chat rooms these individuals might begin to be more honest and open about themselves.

In line with Whitty and Gavin's (2001) research, this study found that men lie in public chat rooms more than women do. The men in this current study lied more than women about their gender, occupation, education and income. It was also found that men more than women try to make their occupation, education, and income sound better than it actually is.

Lea and Spears (1995) found that gender switching often occurs with MUDS; hence, it is not remarkable to find that this also occurs in chat rooms. It is however, noteworthy that men swap gender more than women do. It may be that case that pretending to be a woman has its benefits, such as being more accepted to discuss emotional matters, which is usually a topic of conversation for women. Masquerading as a woman might also create more opportunities for a man in a chat room to have other women chat with him (ironically, however, these apparent women might also be men).

The reason why men lie more about their occupation, education and income, can be explained by traditional theories of romantic relationships. Psychologists have argued that women have a sexual preference for men who are more intelligent, ambitious and have higher socio-economic status (Wright, 1999). Research carried out on ads placed in lonely hearts columns show that men are more likely than women to emphasize their own educational and occupational status (e.g., Koestner & Wheeler, 1988). Thus, it may be that men lie in chat rooms about these aspects to appear more sexually attractive to women. Future research might also consider if women lie more than men about their physical appearance, since past research has also found that men traditionally prefer women who are physically attractive.

Congruous with past research (e.g., Whitty & Gavin, 2001), this current study found that women lied more than men for safety reasons. Younger people also lied more than older people for safety reasons. In addition, younger women withheld information so that other will not discover their identity more than the older women did. Although chat room relationships can be completely anonymous, where one could argue is a safe place, it seems that some women and younger people do not perceive it to be safe. This is probably because they bring their understandings of face to face relationships to their interactions in chat rooms, and for this reason are more timid and fearful of chat room interactions. Another explanation might be that these women and younger participants are frequently asked personal details, and that if answered truthfully might divulge enough information to be tracked down. Rather than terminate a potentially good relationship, these respondents might opt to lie about such details. As Brail (1996) has commented "Online harassment is a tough issue. Finding the fine line between censorship and safety and creating a better environment for women in cyberspace, are complex tasks" (p.141).

To conclude, this current research challenges the argument that only shallow and meaningless relationships are developed online. Rather, it is argued here that emotional support is available in chat rooms. This current study also stresses the importance of examining variables such as age, gender, time spent in chat rooms, and experience, rather than simply comparing online and offline interactions. Moreover, while some argue that the Internet provides an opportunity for participants to escape traditional gender roles, this study found, on the contrary, that traditional gender roles are often replicated online.

References

- Australian Bureau of Statistics. (1998, May). *Australia now a statistical profile: Education attainment.* Canberra, Australian Capital Territory: Author. Retrieved July 2, 2000 from the World Wide Web: http://www.abs.gov.au/
- Altman, I., & Taylor, D. (1973). A. Social Penetration: The development of interpersonal relationships. New York: Holt, Rinehart & Winston.
- Bier, A.T., Sherblom, S.A., & Gallo, M.A. (1996). Ethical issues in a study of Internet use: Uncertainty, responsibility, and the spirit of research relationships. *Ethics and Behavior*, 6, 141-151.
- Brail, S (1996). The price of admission: Harassment and free speech in the wild, wild west. In L. Cherny & E. R. Weise (Eds). *Wired women: Gender and new realities in cyberspace (pp. 141-157)*. USA: Seal Press
- Koestner, R., & Wheeler, L. (1988). Self presentation in personal advertisements: The influence of implicit notions of attraction and role expectations. *Journal of Social and Personal Relationships*, 5, 149-160.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, & Scherlis, W. (1998). Internet paradox: A social technology that reduced social involvement and psychological well-being? *American Psychologist*, *53*, 1017-1031.
- Lea, M. & Spears, R. (1995). Love at first byte? Building personal relationships over computer networks. In J. T. Wood & S.W. Duck (Eds). *Understudied relationships:* Off the beaten track (pp. 197 233). Newbury Park, CA: Sage
- McConatha, D., McConatha, J.T., & Dermigny, R. (1994). The use of interactive computer services to enhance the quality of life for long-term care residents. *Gerontologist*, *34*, 553-556.
- Parks, M. R., & Floyd, K. (1996). Making friends in cyberspace. *Journal of Communication*, 46, 80-97.
- Parks, M. R., & Roberts, L. D. (1998). 'Making MOOsic': The development of personal relationships online and a comparison to their off-line counterparts. *Journal of Social and Personal Relationships*, 15, 517-537.
- Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Reading, MA: Addison-Wesley.
- Rice, R.E. & Love, G. (1987). Electronic emotion: Socioemotional content in a computer mediated communication network. *Communication Research*, 14, 85-108.
- Stone, A. R. (1995). The ward of desire and technology at the close of the mechanical age. Cambridge, MA: MIT Press.

Whitty, M. & Gavin, J. (2000). Reality bytes: The suspension of disbelief in the maintenance of online attraction. *Narratives for a New Millennium, Adelaide,* $23^{rd} - 27^{th}$ *February*.

Whitty, M. & Gavin, J. (2001). Age/Sex/Location: Uncovering the social cues in the development of online relationships. *CyberPsychology & Behavior*, 4, 623-630

Wright, D. E. (1999). *Personal relationships: An interdisciplinary approach*. Mountain View, California: Mayfield Publishing Press.

Wright, P. H. (1989). Gender differences in adults' same-and cross-gender friendships. In R. G. Adams & R. Blieszner (Eds.), *Older adult friendship* (pp. 197-221). Newbury Park, CA: Sage.

Table 1
Percentages for what people lied about

Item	Men	Women	17-20yrs	21-55yrs	χ²	p	Result
Lied age	63	60	66	53	5.04	0.03	Younger > Older
Lied gender	28	18	23	22	3.95	0.05	Men > Women
Lied occupation	56	42	50	47	6.02	0.01	Men > Women
Lied education	40	25	31	35	8.09	0.00	Men > Women
Lied income	44	28	35	37	9.75	0.00	Men > Women

Table 2

Percentages for what participants exaggerated to sound better

Item	Men	Women	17-20yrs	21-55yrs	χ^2	p	Result
Occupation sound	58	43	49	43	7.75	0.01	Men >
better							Women
Education sound	47	34			4.45	0.03	Men >
better							Women
			46	35	4.31	0.04	Younger >
							Older
Income sound	44	26	34	35	11.10	0.00	Men >
better							Women

Table 3

<u>Summary Table</u>

Dependent variable	Result				
Receive emotional support	Older > Younger				
	More hours per week > Less hours per week				
Gives emotional support	Women > Men				
	More hours per week > Less hours per week				
	Experienced users > Less experienced users				
Openness in chat rooms	More hours per week > Less hours per week				
Lying in a chat room	Men > Women				
	Less hours per week >More hours per week				
Lie for safety reasons	Women > Men				
	Younger > Older				
Withheld information so	Younger Women > Older Women				
that other will not discover					
one's identity					
Lied about age	Younger > Older				
Lied about gender	Men > Women				
Lied about occupation	Men > Women				
Lied about education	Men > Women				
Lied about income	Men > Women				
Lie to make occupation	Men > Women				
sound better					
Lie to make education	Men > Women				
sound better	Younger> Older				
Lie to make income sound	Men > Women				
better					