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Terrell Neuage Conversational analysis of chatroom talk - thesis

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DATA ~ Case Study 1, 2, 3, 4, 5, 6,7.

Wednesday, 2 April 2003 5:43 PM 19,183

5. Discussion

5.0 Findings of Case Studies 1-7

CS 1

CS 2

CS 3

CS 4

CS 5

CS 6

CS 7

- **5.1 Unique features of chatrooms**
- 5.2 Research Questions and answers
- 5.3 Assumptions at the beginning

Final thought

5. Discussion

Overall, work in this new area of study postulates two major features of the online communication milieu:

- 1. That new ways of thinking about conversation will emerge with the growing widespread use of computers as a form of communication. (Charles Ess, 1996; Michael Stubbs, 1996),
- 2. That chatrooms involve exchange more hastily done than in any other form of electronic talk-texting, and so therefore more likely to respond to and reflect back the particular pressures and influences of on-line communication (Spender, 1995).

I will firstly look at the seven case studies used to research chatrooms, secondly I will discuss the commonality of features peculiar to chatrooms; different from face-to-face chat, thirdly I will pose answers to five questions I asked at the beginning of this study and finally I will discuss whether the five assumptions I stated in my proposal to do this research were supported or unsupported by my research.

By using several linguistic theories as lenses through which I have examined seven case studies I found that online communication in a chatroom has unique features as a communication form.

This study was undertaken during a specific period of Internet history, from 1998 to 2001. The Internet had its start in September 1969 when two computers were hooked up and the first computer-to-computer chat took place at the University of California, Los Angeles. The first Internet Relay Chat (IRC) began in August 1988 and rapid advances followed, with many different forms of Net based communication arising [2]. My research however has focused on text-based chatrooms. With new technologies new forms of chatrooms are becoming available, including graphical conversations [3], 3D Chatrooms (see CS 3.3.2) such as 'Traveler' and 2 D animation systems such as those in use at 'The Place' and the multimedia chat avatar-based environments discussed in Case Study 2. This study however is limited to a particular moment of web-chat's brief history: the moment of dominance of Internet Relay Chat, as it spawned a variety of talk-spaces and styles, contained within the simple text-exchange model of typed 'chat'.

I chose the following conversational analysis theories to examine chatroom talk.

- Reading-response Theory (Case Study 1),
- Computer Mediated Communication (Case Study 2),
- Semiotic Analysis (Case Study 3),
- Speech Act Analysis (Case Study 4),
- Discourse Analysis (Case Study 5),

- Conversational Analysis (Case Study 6), and several linguistic theories relating to discourse theories and
- Linguistic schools of thought, which explore grammar in conversation and the construction of meaning, such as the Prague School of Linguistics (Case Study 7).

5.0 Findings of Case Studies 1-7

I looked at discourse in chatrooms using the selected linguistic methods, discussed in my methodology. Firstly summarized the most explicit findings in each study and then compared the seven studies, as well as observations from five other chatrooms, to show features most common to all text-based chat, and generalisable as the 'core' discursive modes of Internet chat. Despite their often incommensurable focus, the range of the theoretical methods used for analysis revealed particular communication features common to all chatrooms. Most of these features are not part of person-to-person offline talk, and therefore are unique to text-based chatroom dialogue.

The purpose of the case studies and supplementary chatroom data 'captured' was to answer the five primary research questions in my methodology section (3.3) which I will discuss individually below:

- 1. Is turn taking negotiated within chatrooms? If so, do the rules differ from live speech, and if so, how?
- 2. With the taking away of many physical identifying cues of participants (gender, nationality, age etc.) are issues of sex, race, gender, class, age, and political correctness as prevalent as in face-to-face talk? (see, Turkle, 1995, 1996; Mantovani, 1996a; Parks & Floyd, 1996; Spears & Lea, 1992). If so, how are these matters signaled, read, and negotiated? If not, what are the consequences of abandonment of social sanctions existing elsewhere?
- 3. How is electronic chat reflective of current social discourse?
- 4. Is meaning contractible within Chatrooms? If so, how does this occur?
- 5. Could chatroom discourse become a universally understood language? If so, what might it add to existing language behaviours?

These five were posed to question my five assumptions at the beginning of the methodology section ():

- 1. That people adopt 'textual self' for the chatroom environment they are in.
- 2. That conversation within Chatrooms will change how we come to know others.
- 3. That observational study of chatroom conversation can capture some of the adaptations of

conversational behaviours.

- 4. That this work gives us a better understanding of how, and why, Chatrooms are an important area in which to create new conversational research theory.
- 5. That 'chat' does not differ from natural conversation in certain key aspects.

Each case study had three components useful in bringing about conclusions of chatroom analysis. The first component was the theory used to identify how text-based chat 'worked'. Secondly, each case study identified features of conversation that were unique to text-based chatrooms, and thirdly each case study allowed for the analysis of chatroom behaviours demonstrating elements of communicative activity specific to the theory driving that particular case study. In other words, both general and specialised features were pursued in each case study.

In summary, the primary discoveries in each case study provided a map of IRC, in both general and specific terms, across a broad spectrum of exemplar behaviours, at least during the sample period, and most likely beyond.

CS 1

In Case Study 1 the research tool for analysis was Reader-response theory, a field which enabled the discovery that in online chat, both the person writing and the one (or many) reading are co-language-meaning creators. Chatrooms are an active reading environment where the 'reader is left with everything to do...' (Sartre, 1949, p. 176). In order to engage in conversation the 'speaker-writer' needs to be a 'listener-reader'. What is open in chatrooms that is not available in person-to-person conversation is what later commentators called "preferred readings" what may be represented in the text as 'an inscribed reader' or may emerge in 'interpretative communities'. (Chandler, 2001)

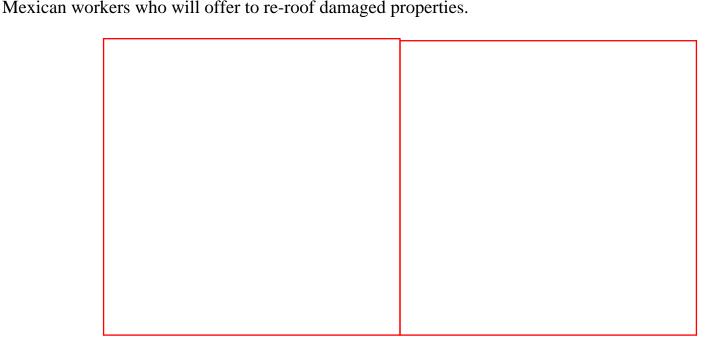
Using Reader-response theory I found that there are two actual moments of reading a participant does in understanding meaning within a chatroom before beginning to read the actual utterances of the other chatters. In person-to-person conversation early "readings" of someone else before we listen to what he or she says involve viewing the person, their appearance, their posturing, body language and the environment. (see, McCroskey and Richmond, 1995; Ong, 1993; Goffman, 1995).

In chatrooms, firstly, the title of the chatroom is read. In Case Study 1 I found that the chatters carried on conversations that were reflective of the chatroom title of Hurricane Floyd. In other Case Studies I found the same reading techniques used. In other words speakers tend to converse about the same topic as the chatroom title. I discuss this later in 5.2 where I show the commonality between chatrooms. In chatrooms the reader's response fits with the chatroom milieu. There can be a new writing that begins a new thread in a chatroom with the response dependent on the reading. For example in Case Study 1 turn 107

<SWMPTHNG> inquires <YOU AINT TALKING ABOUT MEX ROOFERS ARE YOU?> in assumed response to turn 99 <EMT-Calvin> <folks need to be careful for con artest after the storm>. This reading is still on the same topic of the storm as a thread alongside topics about the storm itself. There are few threads during this conversation that are not directly on the storm Hurricane Floyd. Below shows that 254 of the utterances in this chatroom are directly on the storm, 14 turns are about whether Mexican roofers will become involved with rebuilding after the storm, seven turns are personal, for example, <your last name wouldn't be Graham would it> and several turns had nothing to do with the topic of the storm for example, <AND PRUNE JUICE....DON'T KNOW IF I'M COMING OR GOING.....> and <ankash> stating I gotta go get some Xanax.>.

î		
Thread	Example	Number of turns
		in thread
Storm thread	Turn4 <tifftiff18> DO U MOW</tifftiff18>	254
	IF ITS GONNA HIE JERSEY AT	
	ALL	
Mexican thread	Turn77 <swmpthng> THERE'LL</swmpthng>	14
	BE PLENTY OF MEXICAN	
	ROOFERS IN N CAROLINA	
	NEXT WEEK	
	TEXT WEEK	
Personal thread	Turn189 < guest-Beau> Calvin, your	7
	last name wouldn't be Graham would	
	it	
Chocolate thread	Turn15 <mahmoo> brbgotta go get me</mahmoo>	6
	some chocolate	
Other	Turn215 < guest-Capt>	6
	VIAGRA AND PRUNE	
	JUICEDON'T KNOW IF I'M	
	COMING OR GOING	
L		

The illustration below shows the threads branching out from the primary thread. The primary thread is all that relates directly to Hurricane Floyd (Mexican thread, Storm thread) and the secondary threads are the three other threads shown below. Secondary threads can be about the primary topic but do not as obviously continue the primary topic. Secondary threads, if added to at length could then become primary threads. A secondary thread becomes a primary thread when most of the participants in the chatroom contribute only to that thread such as the 'talk' about the storm – its location, strength, destruction [4] and the thread about



In Case Study 1 I was seeking to discover whether topics of conversation were based on the title of the chatroom. Here, I found that the writerly-writer who initiates a conversational thread, and the writerly-reader who responds, could be shown to demonstrate especially "open" and "active" strategies of initiating text and responding to it based on the title of the chatroom. In the example below <TIFFTIFF18> in captured-turn 4 enquires whether the hurricane is going to hit New Jersey and is answered in captured-turn 8 by <ankash> that New Jersey is currently under a storm watch. A large enough sample of turn takings needs to be logged from a chatroom in order to know what is being said. If these were the first eight turns <RUSSL1>'s response that the storm was overhead could be meant to be in response to whether it was going to hit New Jersey if we knew that <RUSSL1> was in New Jersey. However in an earlier utterance <RUSSL1> was asked where the storm was. All chat is only as current as what it is when the chatroom is entered what is said before is unknowable unless a chat of the prior utterances are available. For example the chat for the 911 chat I have included as 'postscript' was already complete when I saw the log from the first entry about an airplane crashing into the World Trade Centre until the last entry hours later when the chatroom was closed.

One of the features of reader-response theory as I am using it in chatrooms is that it shows how a reader brings certain assumptions to a text based on the interpretive strategies he/she has brought to a particular community, from other social-cultural contexts (See, Gass, Neu, and Joyce, 1995; Blum-Kulka, Kasper, Gabriele, 1989; Rheingold, 1994; Turkle, 1995). The racial tones in Case Study 1 displayed toward Mexican roofers is an example of this. Increasingly, such socio-cultural contextual experience and therefore capacity for interpretation involves on-line communities themselves. Technological features of the virtual environment combine with self-selected membership to create a community with a strong shared sense of values (Bruckman, 1992). I have found this to be true with chatrooms in culture and country specific sites such as Middle East sites (Gudykunst, 2000) in which talk about the US war against Iraq in 2003 is supported by pro-American websites and opposed by pro-Mid East sites. Often pro-American chatters will enter sites on Iranian or Iraqian sites and speak negatively about the country in question. For example see chatrooms on http://www.iraq4u.com and http://persepolis.com/chat/ChatPage.htm.

In each case study I posed questions particular to the theory used in the analyses of that room. In Case Study 1 the research questions were:

1. Is the reader the writer who is writing the reader?

The writer produces his or her utterance based on taking on the role of the reader and therefore the reader's response is also the response the writer seeks – and works to provoke. If there is no response the written utterance becomes lost in the scrolling text and there is no thread or content to build upon. Reader-response theory is useful in unlocking responses to chat.

2. Does the reader or the writer produce meaning within 'this' chatroom, or do they create meaning together?

As I have shown in Case Study 1 the fact that the author is unknown makes the reading of the text in a chatroom self-creating. The author becomes an imagined author – possibly male or female, young or old, rich or poor, Muslim or Christian or any other identity. Meaning is created in a chatroom only as much as the reader believes it to be meaningful. The multiple text structures of chatrooms can provide different interpretations of the same utterance (See Reid, 1996; Qvortrup, 2000). As a result of the limited information channel it is difficult to place a single discourse structure in chatrooms. Previous research on conventional discourse does not explain issues such turn-taking, backchannel, and co-presence in online environments (Cherny, 1995). How a reader assesses meaning could accurately be applied to real time written Reader-response theory in a medium such as a chatroom or SMS messages on a mobile (cell) phone. Where the "flow" of words suits the already-established contexts of both the chat session itself, and the "chatters" in their broader social settings, a consensual flow of "developing responses" occurs. The flow of the chat in Case Study 1 is an issue relating to the storm and it is the flow that establishes the context of the chatroom. Everything said is clearly concerning the storm, apart from two isolated statements: turn 215 <guest-Capt> states <VIAGRA AND PRUNE JUICE....DON'T KNOW IF I'M COMING OR GOING....> and <ankash> in turn 24 stating <I gotta go get some Xanax> (an antianxiety agent) and three other unrelated threads. The three unrelated to the storm threads [5] are about chocolate (turns 15, 23, 25, 163, 171 and 177) [6], living on the West coast of the United States [7] and asking if someone was a particular person (Turn189 < guest-Beau> < Calvin, your last name wouldn't be Graham would it.>. Turn 215 could be uttered in frustration to the chaos of the storm conditions (<VIAGRA AND PRUNE JUICE....DON'T KNOW IF I'M COMING OR GOING.....>). Needing Xanax could also be related to being anxious about the storm. Therefore the reader and the writer create meaning together to produce threads of conversation. The writer and the reader are co-creators or co-authors in the communicative act.

3. How important is the particular chatroom context for the reader-writer interpretive relation?

It is the title of the chatroom that I suggest lures one to a particular chatroom. In Case Study 1 it was the topic of Hurricane Floyd. In Case Study 7 it is the topic of baseball and in Case Study 3 the title of the chatroom is the Britney Spears chatroom. The chatter has to deal with multiple frames of interpretation in assessing the motivations and attitudes of others in the room such as in Turn 105. <SWMPTHNG> asks <YOU AINT TALKING ABOUT MEX ROOFERS ARE YOU?>.

If this turn-taking was inserted in a conversation in the baseball chat there would not be a satisfactory reader-writer interpretive relation as it would have no meaning. Just as in any reading, whether it is a letter or a novel or a chatroom, if a passage does not fulfill the contextual reading, if there is not a continuation of the disjointed message, the message cannot be understood.

CS₂

In Case Study 2, I viewed online chat as a form of Computer-Mediated Communication (CMC) with all the special features and characteristics this implies. Computers do not replace but supplement communication; how that occurs is dependant on both the sender of the message and the receiver. The many tools available for CMC research can be divided into either asynchronous CMC (emails; mailbases; network groups; annotatable webpages; databases and discussion boards) or synchronous CMC (chatrooms and computer-conferencing). Computer-Mediated Communication (CMC) is used in business, non-profit organizations, education, entertainment as well as personal use. However CMC lacks established methodologies to analyze chatroom talk. Therefore this thesis has used several conversational analytical theories, such as Speech act theory and Conversational Analysis, as a lens to examine the data in CMC. The most common use of CMC research is surveying students and instructors (See, Romiszowski and Mason, 1996; Harasim, Hiltz, Teles, & Turoff, 1995; Mason, 1992; Rice, 1990) and tracking ebusiness supported work coordination (Bowers and Churcher, 1988). CMC is used as a method as well as a tool to research online conversation. (See, Cicognani, 1996, 1997, 1998, 2000; Parrish, 2000; Rheingold, 1993, 1994, 2000; Vallis, 1999, 2001; Turkle, 1982, 1984, 1995, 1996)

Synchronous CMC has its own particular set of difficulties as I have shown in this case study. Multiple threads of discussion become difficult to follow. Slow Internet connection can mean that the speed of reading and responding cannot be maintained. This results in discussion losing its focus and side discussions (threads) developing. Sometimes participants may simply be slow typists. The result is that what is written is often a response to something written many turns earlier.

Three terms, gap, lapse and pause refer to silences in CA^[8]. In chatrooms however, there will never be silences in the proper sense of the word as I have shown throughout this study. If there are silences in real time, the text will simply scroll together to cover these spaces.

In the example below I have looked at the space between a person's turn, and the next time the same person has a turn. I have called this segment of chat a 'frame', and have called the distance between the two turns a 'lag'.

For example in Case Study 1 <EMT-Calvin> has the following number of turns in between his or her

utterances:

turn		# of turns in between	Turns on a singular
			down line
1	hahahaha lol		
14	That weather building in cherryt point says it s 126 degrees in cherry point	13	
35	well folks im signing off here	21	
42	i need some sleep	7	
63	i like being self employed	21	
69	dont have to worry about someone telling me to	6	
70	report to worl		
82	and those folks will be sent back to mexico	12	
85	The locals will be the ones to get jobs	3	
97	folks need to be careful for con artest after the storm	12	
112	i aint worried our new 99 home is under warrentyu	15	
118	morehead guess how many tie downs are on here	6	
121	68 tie downs	3	
153	folks my God is able	32	

With CMC the conversational lags are self-created and there is no one urging an answer as there would be in face-to-face communication. <EMT-Calvin> answers his or her own utterances for (1) signing off in turn

35 by stating seven turns later <i need some sleep>. There is a varying conversational lag between utterances throughout <EMT-Calvin>'s contribution to this chat. Looking at all 282 turns in this sequence <EMT-Calvin> has the following lags between utterances

13>21>7>21>6>12>3>12>15>6>3>32>5>5>1>9>6>9>5>7>14>8>9>7>14>7>3>.

In other words, there are 13 turns from <EMT-Calvin>'s first turn to his next, then 21 turns separate his second turn from his third, and so on. I have shown this graphically in column four. The upright line represents all 282 turns in the chat segment. The short horizontal lines represent <EMT-Calvin>'s turns, giving a visual image of the spaces between <EMT-Calvin>'s turns.

The largest frame is the 32 conversational lags between turns 121 and 153 (shown in the fourth column above '<<---') between the utterance of

- <68 tie downs> and
- <folks my God is able>

the turns between were utterances concerning the storm, for example;

- <I know the anxiety you must be feeling~I was in two typhoons in Taiwan last year>,
- <Winds are picking up but not tropical yet>,
- <The news says the eye should hit us in the early AM hours.>".

What these case studies have shown is that there is also a reading in between the frames. (See CS 1.1). In face-to-face conversation a conversational lapse or pause can be equated to a listening phase of conversations. In chat rooms this would be the reading phase which is also equivalent to the listening phase in a face-to-face conversation. (see Sacks, 1992).

In chatrooms that do not say when the user is entering or leaving a chatroom there is no way of knowing whether the chatter is lurking or has logged off. In column B below <Kiera> makes no utterances between entering and leaving and therefore would be a lurker. In face-to-face conversation a conversational lapse or pause can be equated to a listening phase of conversations. In chat rooms this would be the reading phase which is also equivalent to the listening phase in a face-to-face conversation. (see Sacks, 1992). There were no examples of notification of people signing in or out in any of the chatrooms I have examined in my case studies.

A.
http://www.chatropolis.com/whochat/x.html http://se.unisa.edu.au/september11/new_york_city_chat_chat.htm

(20:34:49 SignOn) suzi enters Sapho's Retreat	8. 14:57:20	Kiera just entered this channel
(20:35:23 SignOff) Roxy leaves Sapho's Retreat	9. 14:57:43	novyk just entered this channel
(20:35:37 SignOn) teenieamber enters Sapho's Retreat	10. 14:57:35	Sascha: no from germany
(20:38:42 SignOn) jb28m enters Sapho's Retreat	11. 14:57:50	oscar: ok hello!
(20:41:16 SignOn) voyeur(mwm) enters Sapho's Retreat	12. 14:57:56	MissMaca: is anyone from NY?
(20:41:26 SignOn) slamman enters Sapho's Retreat	13. 14:58:01	dolly just entered this channel
(20:42:16 SignOn) ellie enters Sapho's Retreat	14. 14:58:04	Will just entered this channel
(20:42:21 SignOn) Marian enters Sapho's Retreat	15. 14:58:05	novyk: hello from Spain
(20:42:43 SignOff) Marian leaves Sapho's Retreat	16. 14:58:09	damaged: im a fread what will happen next
(20:42:49 SignOn) Becci enters Sapho's Retreat	17. 14:58:14 you people thi	mike: that was an organized terror act. what do ink.
	18. 14:58:14	Sascha: i watch it in tv it is unbelieveble
	19. 14:58:15	novyk: what's happened there ???
	20. 14:58:17	Kiera just logged off.

In chatrooms that record every instance of keyboard usage including entry, leaving, changing names, and using pre-set text, there can be difficulty in following conversation (see the example

in Case Study 6 '6.3' where there were only two utterances in thirty-six turns [9]) I used an Instant Messenger chatroom that had two people, and found just as many threads happening as there would be with multiple speakers. In the two samples that I 'captured' I have found several differences in the communicative responses between various Internet communicational devices. In discussion groups and emails people observably take more time and care with what they write, and are therefore are not as casual as Instant Messenger (IM) or chatroom conversations. Users of discussion groups and email may use a spell/grammar check, and think before posting their text. There is a more textual format with discussion groups. Instant Messenger and chatrooms appear at first sight to be less disciplined and more varied, with the relative spontaneity of casual interchange ignoring many more formal communicative conventions. In the example below the message from the Hurricane Floyd Messages Board is more developed textually than the chatroom utterance.

Hurricane Floyd Messages board	September 13, 1999 - 08:45 am:	By <wpapas></wpapas>	Significant safety concerns for family, friends, and property on San Salvador, Rum Key, Turks & Cacos. If anyone is on line there Please post to messaging board, I know there are those monitoring short wave radio on San Salvador; Please radio The "Pitts" Sandra & Nick on San Salvador and forward any request or messages. There was very little news before after and during Dennis. Sincerely. Wp
Floyd chatroom		<ankash></ankash>	Tornadoes in Pender Count

In an Instant Messenger chatroom the "readerly" writer is noticeably silent when not writing. In

both cases below there are repeated entries by the same chatter before the other chatter 'speaks'. The example below in column "A" shows the male speaker <######:> making another entry before there is an answer giving five multi-utterances and seven single utterances.

Between the female's turn at 11 and her next turn at 16 there are four male utterances. What this shows in at least these two chat examples is that the male in both examples outnumber the utterances of the female. (See Tannen, 1990; Morgan, 2000, on conversational maintenance by men and women in computer and face-to-face discussions). In the illustration below in A the male is marked by the symbol #####: and in B the male is marked by T Neuage. In A there are two instances of the female pushing the 'enter' key (the male has five multiple entries) and in B there is also only two times in the conversation that the female pressed the entrance key (the male has eleven multiple entries).



From this example it is evident that the males are initiating threads and the female is maintaining them^[10]. In the next example, the male has initiated the thread on past lives and the female has commented on it.

```
1. #####: WE WERE TOGETHER IN THE HAREMS OF CHINAS THRONE, THE GOOD OLDL DAYS

2. #####: MINE

3. *****: ah...one of those past life miracles
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In Case Study 4 the speakers who dominate the conversation by contrast are female usernames [11]; <Nicole528> has taken 24 turns and <judythejedi> has taken 22 turns in this part of the chatroom dialogue. Below <judythejedi> is marked as and <Nicole528> is marked as . I have marked them so they can be easily seen as the dominating influence in this chatroom [12].



Night-Godless > }}} 52) 53) 54) 55) 56) 57) 58) 59) 60) 61) **ጥርጥን**ርጉርተ ሙ 62) 63) 64) 65) 66) al grangis Krangers | 1.1.114 67) 68) 69) THE CHESTA

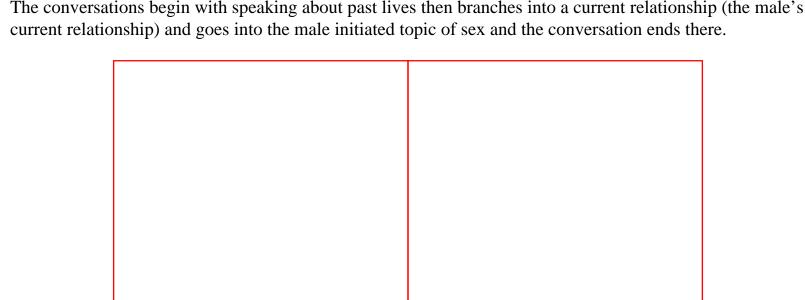
In summary then I approached this case study with two questions related to Computer-mediated communication.

'Do computers change conversation' and 'are Instant Messenger chatrooms closer to offline-person-to-person conversation than dialogue in a multivoiced chatroom'?

Firstly computers do change conversation due to the capacity for anonymous communication in a chatroom environment. Without cues available in other forms of communication (voice, sight, handwriting) online writing is a pure exchange of text without any judgment that could be made from a physical contact. How we talk in chatrooms is not the same way we talk in person or in letters or emails. The acceptance of a few words at a time or pictures such as emoticons and icons or the use of abbreviations replaces more elaborate textual or vocal presentations. Meaning has to be written read and understood with a minimal amount of writing. Using chatrooms we are able to form larger communities with people we have never met and most likely never will.

Secondly, like the chat in Case Study 1 multithreads (five) which branch out from the primary topic of the storm, were also present in this Instant Messenger conversation (in this case three). The overall topic stems from the fact that the two people in the conversation know one another (as they have informed me that they do). The threads in this 'talk' are about past lives, current relationships and talk about sex. The new threads were each initiated by the male speaker.

- 1. past lives <#####:> <WE WERE TOGETHER IN THE HAREMS OF CHINAS THRONE, THE GOOD OLDL DAYS>
- 2. current relationship <#####:> <YES, I GET TO CALL HER IN ABOUT 2 HOURS
- 3. sex talk <######:> <THE WOMAN HAS FOUR ORGASIMS, A LEAST ONE VERY BIG TWO MEDIUM AND ONE OR MORE SMALL THE MAN HAS ONE BIG AND MAYBE A FEW SMALL ONES>



Instant Messenger or two-only chats are more intimate than multi-chats. In a public multi-chat room where it is not known who is present, utterances are viewable by all who are present. In the maze of scrolling texts threads, an individual can be found and lost by both the reader and the writer. In IM there are only the two viewers who choose to respond or not to respond. Instant Messenger is similar to face-to-face conversation in that responses must be made if there is to be a conversation. In a multi-person chatroom by contrast, if there is no response by one person then someone else may respond to carry a thread forward. As I have shown in Case Study 2 and in the other case studies, multi-voiced text-based chat confuses discourse to the point that not only is dialogue difficult to follow but it is difficult to know who is dialoguing. One-to-one online discourse is personal, uninterrupted and in this sense closer to 'normal' offline conversation.

With this case study I asked whether computers change conversation. What is changed is how we do conversation – the waiting for a response, dependent on the person with whom we are communicating and the speed they type and the speed of their computer connection. The speed of turn-talking and understanding what is being said is dependent on the number of people in the chatroom. The more voices there are to sort through to carry on a personal conversation, the more a one-on-one conversation can be prevented from developing. If there are more than 40 people in the same chat all typing and entering text at the same time – there can be a lapse between what we write and its appearance in the order of chat. For example in the chat below that occurred during the World Trade Centre collapses there were sixteen entrances with eleven participants in the minute between 3.07 PM and 3.08 PM. Turn 123 and 124 are both recorded at 15:07:17.

117.	15:07:00	sascha just entered this channel
118.	15:07:03	1Bone!!: Ich bin deutsch
119.	15:07:06	Spain_17: Here in Spain everyones talking about what's happening there
120.	15:07:09	novyk: yo alucino, what's happened in London ???
121.	15:07:12	damaged: morons, there weher 2 attacks again, one in pittburg
122.	15:07:16	Hello: news: may be Osmat behind this attack
123.	15:07:17	mike: where are you from, damaged? because you d'like to escape to mars.
124.	15:07:17	Spain_17: Anybody from the N.Y??
125.	15:07:19	oscar: yo de menorca! que pasada no?
126.	15:07:19	1Bone!!: koischer chat hier
127.	15:07:27	Hello: I just heard from news
128.	15:07:28	oscar: que pasada no?
129.	15:07:32	captain_insaneo: in london the stock exchange has been evacuated
130.	15:07:32	Spain_17: Oscar?
131.	15:07:42	MissMaca: what's happened in London?
132.	15:07:58	tach just entered this channel

Not only is it difficult to follow conversation at this pace but one has to quickly respond to a very specific utterance in order to be read and responded to. The speed that communication occurs at

with computers, and the inability to always access the source of the information and the context that it is in, presents the biggest problem of finding meaning in transcripts in multi-person text-based chatrooms. In Instant Messenger or any two-person only chatroom there is more opportunity for turn-taking communication and therefore having a meaningful exchange than in a multi-person chatroom.

CS 3

In Case Study 3 I used semiotic and pragmatic analysis as my tools of investigation of online chat. Firstly, I used semiotics or the study of signs to investigate how conversation occured in a chatroom. I particularly wanted to uncover not just how 'talk' is accomplished in a chatroom, but how far chatroom "talk" generally may be said to include a broader than usual repertoire of representation. Mihai Nadin claims that the computer is a semiotic machine as it is a machine that can be programmed to manipulate symbols. Using computers as semiotics has an aesthetic appeal because semiotics changes over time and provides new meanings to old ideas.

In this case study I explored how the use of non-word representation: emoticons and abbreviations as well as the "identity" sign-tag or the username of the chatter influenced the turn-takings of the chat-talk. (see, Crystal 2001; Rivera 2002).

I chose a chatroom named after a celebrity to firstly discover whether usernames, their "identity" sign-tag, would be reflective of the title of the chatroom. In this case study with the title of 'Britney Spears Chat' a chatter did have the name of

baby_britney1>. This identification with the chattitle is consistent with what I have found in the other chatrooms in this thesis, such as in Case Study 1, Hurricane Floyd there was the username <IMFLOYD> in Case Study 4 a participants used the names 'astrochat', <AquarianBlue>, <TheGods> and <Night-Goddess_>; Case Study 6 'web 3d animation' there was <web3dADM> and < Web3DCEO)> and in Case Study 7, 'baseball chat' <MLB-LADY> (major league baseball). Therefore it is evident that usernames can be associated with the name of the chatroom. When the dialogue is read from these specific usernames it is clear that the chatter is interested in the topic of the chatroom such as <AquarianBlue> in Case Study 4;

10). <AquarianBlue> Nicole 528 is gemini

<web3dADM> in Case Study 6;

10) <web3dADM> just got the Cult3D folks to agree to show up on March 3

<MLBLADY> in Case Study 7;

6. <MLBLADY> no clev fan but like wright

<lMFLOYD> in Case Study 1;

220 <IMFLOYD> a swamp that is getting deeper by the minute.....

and <Spain_17>: in the Postscript – 911 Chat;

120. <Spain_17>: Here in Spain everyones talking about what's happening there

In face-to-face conversation people use an entire array of semiotics: speech, gestures, facial - but with CMC communication semiotics is restricted to lines of text on a screen as expression (Stone, 1995a, 93) as well as usernames, emoticons, colour and sound. Semiotic analysis thus enables this study to move beyond a linguistic base into examination of the graphical and expressive modes used to compensate, and maybe beyond that, to create meaning in new ways, within the new "conversational" spaces of the chatroom - and particularly so in a chatroom of saturating expressiveness within identity work, as is the case with Britney chat. In Case Study 3 to fully explore this drive to identity performance and exploration, to extend the actual communicative range of the "language" or coding system used, it was first necessary to examine which communicative functions were actually in use in the Britney Spears chatroom, and to reveal which are dominant and recurrent. Firstly, it was evident and recurrent in this chatroom that chatters employed usernames as signs to give others clues about their identify. In person-to-person conversation the clues that are given as aspects of identity are personal identity such as ones' social identity which can be ones' employment or educational status - which I compared to the using of unsernames in chatrooms. In this case study the following usernames were being used when I was observing the chat: <Mickey_P_IsMine>, <JeRz-BaByGurL>, <Pretty_Jennifer>, <baby_britney1>, <IM_2_MUCH_4U>, <AnGeL_GIRL>, <Luvable_gurl15>, <buttercup20031> and <guest-hotgirlz>. These usernames suggest that the chatter, if not a young girl, at least identified with a young person's name. In real-life <Luvable_gurl15> could be a 58 year old male.

Secondly, the title of the chatroom identified the chatters as interested in the topic of the person,

Britney Spears. The chatroom title can provide information on the identity of the individual for example, being in a chatroom such as 'Iraq4u'.

My hypothesis is that the utterances in an adolescent chatroom are likely to consist of only a few words and there would not be an in depth discussion of anything more than ones' personal self. As I show in the comparison table with a computer software discussion chat below this can be seen to be true. I also found in this chatroom that abbreviations were used more extensively than in chatrooms that may attract an older participation, such as the 'storm' chat in Case Study 1.



Emoticons serve a purpose which is more than to save time. They are also a type of slang and they show who is familiar or 'up-to-date' with the latest language being used. Of the seven case studies, I have found the highest incidence of abbreviations (30%) and emoticons (6%) in the Britney Spears chatroom (see

http://se.unisa.edu.au/tables.htm for a statistical comparison of the seven chatrooms). In fact the abbreviation for laughing-out-loud 'lol' was used fifteen times. There were 294 words used, with the personal pronoun 'l' used the most frequently, (18 times) and 'lol' used the next most frequently (15 times). In the sequence shown below 'lol' is used nine times in 20 turns, which is more frequent than in any other

chatroom that I used in this study. Another form of laughing-out-loud 'LMAO' (Laughing my ass off) was used five times.

Firstly, chatroom semiotics shows the level of the participator and whether he or she is in the right communicative arena to continue to be an excepted part of the chat community. Identity in the Britney Spears chatroom is limited to the user name and the textual input of the chatter. By contrast, in face-to-face conversation, forms of identification are much more extensive and include personal identity, national identity, occupational identity, corporate identity, gender identity and religious identity. (see Berger, 1998).

The only thread of a conversation 'captured' in the Britney Spears chat sequence shown below was about the wish to see a particular person online. This is more of a casual chat, whereas in the 3D Chat there was a more developed discussion of computer software.

Britney Spears Chat Room	3D Chat	

well heather he going to end it i just know it	What VRML options work within AOL?
2. No Syd damn it meee	dunno
	ahhh an aussea bunch of good vrml
3. No hes not ter	folks there
4. Lol	I don't believe AOL supports VRML at all
5. hmmm mickey	Will X3D work better there because it's
6. But i think hes got a gf so i dont miss him that muc but well see what	Java-based?
tomrrow bringslol	which really sucksbut i'm not completely sure
7. Ok Jenn Iol	X3D is not necessarity Java based that
8. Yayay lol!	is just 1 implementation option
9. Lol justin	I'm sure there will be stand alone and
10. lol	plugin versions of X3D viewers
11. iz lost	so did len say x3d not finalised yet?
12. will find ya lol	x3d is not finalized yetyes true i think the final spec is due by siggraph time
13. do any guys wanna chat?	this summer but a lot should happen at the web3d conference too
14. afk	is a lot of business done there?
15. Jenn Am i talking to a brick wall???	yeah quite a bit i supposemost of the working groups meet
16. Sis i want Justin to get here!	
17. need to fix my hair	
18. hello	
19. wel I duno Mickey lol I juss think hes hottie so i cant really miss him	
20. lol	
s dead=(
i am going to cry if i dont see my baby soon	

Secondly, I used pragmatics as a lens of conversational analysis in chatrooms (Ayer, 1968; Peirce, 1980) to reveal a socially embedded reading of chat 'talk'. Pragmatics helps to focus on how the various communicative items in chatrooms; emoticons, abbreviations and misspelled words as well as chat utterance sentence structures (CUSS) are used within an online linguistic society. Pragmatics in chatrooms starts from the observation that people use online language to accomplish certain kinds of acts, broadly known as speech acts (Speech act theory is discussed in Case Study 4 below). Studies by Simeon J. Yates (1996) have shown that the language used in interactive speech in chatrooms more resembles spoken than written language in the interpersonal respect (use of personal pronouns). An example of this can be seen in Case Study 3, Britney Spears chat, Table 8 - http://se.unisa.edu.au/phd/chapter5/table_8.htm which shows that 'I' has been used 18 times in the chat, the most used word in the whole chat.

The writing back to a previous utterance in a synchronous conversational situation in chatrooms leads to a pragmatic re-contextualization of the use of semiotic expression. It is how the signs or computer input is read that gives a participant enough meaning to either continue building onto an utterance as a thread or to begin a new thread. In Case Study three there are several utterances that do not become threads as there is no comment on them. For example neither of the following two have a response.

23. <baby_britney1> do any guys wanna chat?

27. <SluGGiE> need to fix my hair...

In these next two turns <Mickey_P_IsMine> has no response but responds to his or her self in turn 64.

56. <Mickey_P_IsMine> Ahh i got a retest tomrrow mi failin math lol..and i think science

64. <Mickey_P_IsMine> which i duno how im failin science

Responding to abbreviations and emoticons shows understanding amongst those who are chatting. For <Paul665> in turn 44. to ask <Jen> to give details on his or her self <Paul665> must assume that Jen knows the abbreviation 'asl'.

And <Pretty_Jennifer> responds;

I use semantics, (Korzybski, 1954; Chierchia and McConnell-Ginet, 1990, 1995) to investigate the 'meaning' of a linguistic item, considered as part of a syntactic system, in terms of how the item, (in this case study of an abbreviation) can relate to something else. For example the abbreviation 'lol' can have different interpretations such as 'laughing-out-loud' (the meaning I would transcribe to this case study); 'lots-of-love' [13] 'learning-on-line' [14]; Liechtenstein on-line [15]; Lots-Of-Luck [16] or even Little Old Lady [17].

```
16.<Mickey_P_IsMine> But i think hes got a gf so i dont miss him that muc but well see what tomrrow bringslol

17. <Mickey_P_IsMine> Ok Jenn lol

18. <Pretty_Jennifer> Yayay lol!

19. <Mickey_P_IsMine> Lol justin

20. <SluGGiE-> lol

21. <AnGeL_GIRL> iz lost

22. <Pretty_Jennifer> will find ya lol
```

To establish an analysis of dialogue I needed to have both semantic representation (content of

what the different 'speakers' in a chatroom are saying) and pragmatic information, the kinds of speech acts chatters are performing, such as; are they asking a question, answering a question that has just been asked, or just announcing their presence. In Case Study 3 I identified a dialogue system, which identified both semantic and pragmatic information from a semiotics reading. I found in this particular chatroom that conversation could be continued in a most casual manner with abbreviations such as 'lol' fulfilling a user's turn.

The first question I posed in this chatroom was whether a popular person's name as title of a chatroom creates a difference in dialogue in the chatrooms' In this chatroom there was only one mention of Britney Spears, even though the chatroom bears her name, during the conversation I observed. There would need to be a study of many celebrity chatrooms before an answer could be given. There are chat-events when a celebrity is present and the questions are addressed to the person the chat-event is listed for. In this case study the chatroom was named after a celebrity but from my short stay in the chatroom there was no indication that it was an 'official' site for Britney Spears chatroom. There are many chatrooms dedicated to Britney Spears [18] and I have never found more than a few users at once during the time I was doing my research on those rooms except for the chatroom that I used in this case study. From reviewing seven of these chatrooms that include her name in the URL I would suggest that fans of Britney Spears do not go to chatrooms with her name specifically in them to discuss her.

The second question asked in this chatroom was whether emoticons and abbreviations are used more frequently in a youth orientated chatroom than in an 'adult' chatroom [20]. My findings from this chatroom were that they were and I show this in 5.1.1 Table 1. This chatroom had 30 percent of turns with an emoticon or abbreviation used compared to the next highest room, Case Study 6, which had .06 of turns with an emoticon usage. The difference was that Case Study 2 was based on a teen pop star and Case Study 6 was on computer 3D animation and the participants appeared older (many made some mention of family during the conversation). A Pew Internet Project report (see http://www.pewinternet.org) in August 2002 found that about 17 million youth ages 12 through 17 use the Internet. That represents 73% of those in this age bracket. Fifty-five percent said they used chatrooms and close to 13 million teenagers representing 74% of online teens, use instant messaging. In comparison, 44% of online adults have used IM. A further finding by the Pew Internet Project found that 24% of teens that have used IMs and email or been to chat rooms have pretended to be a different person when they were communicating online. I have assumed that the majority of those in this case study were teenagers and would suggest that the chatters are content with short utterances that do not develop into a conversational thread of more than a few words per turn.

CS₄

In Case Study 4 I used speech act theory to see if there were speech acts in a chatroom. Using speech act theory as a means to identify how one communicates and finds meaning in a chatroom is difficult, because of the indeterminacy of the "response". It is difficult too to know how much of the intentional load is carried by para-linguistic elements such as emoticons or abbreviations. Therefore my examples for Speech Acts do not include abbreviations or emoticons.

Direct Speech Acts

Speech Act	Sentence Type	Function	Examples
Assertion	Declarative.	conveys information; is true or false	(Case Study 4) 11) <nicole528> im a Gemini (Case Study 1) 10) <guest-moreheadcitync> NO she's near 10th & Gville Blvd (Case Study 1) 77) <swmpthng> THERE'LL BE PLENTY OF MEXICAN ROOFERS IN N CAROLINA NEXT WEEK</swmpthng></guest-moreheadcitync></nicole528>
Question	Interrogative	elicits information	(Case Study 4) 2) dingo42 nicole wahts your sign ?? (Case Study 4) 17) <aquarianblue> your meeting her judy? when? (Case Study 4) 32) <night-goddess_> anyone cool in here? (Case Study - 911) 182) Brazilian report: some one know any new about the manhattan situation ???</night-goddess_></aquarianblue>
Orders and Requests	Imperative	causes others to behave in certain ways	(Case Study 5) 47) <scud4> bwitched stop scrollin in here (Case Study 1) 123) <zardiw> smptthinggo back to your SWAMP</zardiw></scud4>

Direct speech acts that use performative verbs to accomplish their ends expands the three basic types shown above with making statements, requests and commands.

a. Statements

(Case Study 1 turn 37) <EMT-Calvin> well folks im signing off here

(Case Study 1 turn 233) <IMFLOYD> i am dying (in the context of this case study this does not refer to the writer of the text but to the username – implying that Hurricane Floyd

b. Questions

(Case Study 6 turn 49) <Brian> r u talking about blaxxun and shout3d implimentations or something else

c. Orders and Requests

(Case Study - 911 turn 296) <MissMaca> Brazillian Report: Iknow it was a building %&#%head. Give up on the %&#%ing nuke's ok!!!

Indirect Speech Acts

- 1. (Case Study 1 turn 74) <guest-Tom> does anyone know where floyd isnow
- 2. (Case Study 1 turn 125) <guest-kodiak> does anyone know why UNCC has not closed
- 3. (Case Study 1 turn 162) <guest-EZGuest367> Anyone know if I should worry about daughter in west NC?
- 4. (Case Study 2 turn 23) HOW DID YOU KNOW MAMA MY HAIR IS THINING, BUT ONLY ON THE HEAD HE HE LOL
- 5. (Case Study 911 turn 370) < England > n e one know of other active new york chat rooms?

These are still in the form of questions, but probably are not inquiries about what the chatter believes someone else will know. Most of the time, the answer "yes, I do" would be an uncooperative response. The normal answer we would expect in real life would be "Yes, Hurricane Floyd is passing over North Carolina now", <UNCC is closed because of the storm>, <if your daughter is in the eye of the storm you should be worried>, <I know your hair is thinning because I saw your picture online>, <another active New York chatroom is at http://www.superglobe.com/chat/>. However, only example number 4 is directed to one particular chatter, the other turns are to anyone in the chatroom. Here the reply is directed to the speech act meaning, not the literal meaning. A simple "yes" answer that responds to the literal meaning would usually be taken for an uncooperative answer in actual social life, for example "Yes, I do", would be heard as "Yes, I do, but I'm not necessarily going to tell you where the storm is, why UNCC is closed or I know of other active chatrooms in NY". So the five examples above function as indirect questions.

The question I sought to answer in this chatroom is;

"What is a successful speech act in a chatroom?"

Austin and Searle claim that the speech act is the basic unit of meaning and force, or the most basic linguistic entity with both a constative and a performative dimension. They both accept that there are illocutionary acts and perlocutionary acts, using speech act theory as their theoretical foundation and analysing the data by message length, distribution, message links, and

interaction. Speech act theory is a theory based on the notion that what people say is consistent with what they do. (Howell-Richardson; Mellar, 1996)

It is not determinable whether <hmmmmmmm> in the utterance below is a truth statement or a representative of something else or an answer to the previous utterance of <Night-Goddess_>. For this reason I do not find Speech act theory a useful theory to investigate all utterances in a chatroom.

34) <AquarianBlue> hmmmmmmm

In this chatroom I also looked at what is common to all chatrooms and that is threads of conversation. Unlike face-to-face conversation where a person responds to the recent statement in a conversation in a chatroom an utterance can be a continuation of someone else's utterance or it can be on a new topic with the hope that someone else may join in. The example below shows three unrelated utterances but all are either continuation of a thread or the initiation of a new thread;

- 30) <judythejedi> i don't think so..she's bringing amtrack down maybe
- 31) <Nicole528> whats your sign dingo?
- 32) <Night-Goddess_> anyone cool in here?

Following <Night-Goddess_>'s utterance <anyone cool in here?> a thread develops that discusses the issue about whether anyone is 'cool' in this room.

32)	<night-goddess_> anyone cool in here?</night-goddess_>		
33)	<judythejedi> hi night</judythejedi>		
34)	/\32	<aquarianblue> hmmmmmmm</aquarianblue>	

L'		
35)	/\32	<judythejedi>everyone is cool here</judythejedi>
36)	/\32	<nicole528> is cool lol</nicole528>
37)	<poop< td=""><td>paloo> 10ty judy</td></poop<>	paloo> 10ty judy
38)	/\32	<nicole528> is cold too</nicole528>
39)	<sara< td=""><td>4u> I LOVE YOU TO MUCHACARD</td></sara<>	4u> I LOVE YOU TO MUCHACARD
40)	<jijirika< td=""><td>a>is back</td></jijirika<>	a>is back
41)	∧32	<tazdevil144> cool</tazdevil144>

For this speech act to be completed there needs to be an understanding of what <Night-Goddess_> means by 'being cool'. She could have been asking whether anyone was 'cool' but to an outsider, one from a different area of the world or different culture that did not follow the same linguistic slang used in this chatroom, it could have meant the participants were in a cold climate. Reading the response does not clarify the story because everyone could be cool as they are using their computer whilst sitting in a refrigerator or they may be in Alaska in mid-winter. Or did <Night-Goddess_> want to know if everyone was 'cool' in the slang term meaning they were good or all right or groovy? Whatever the meaning, there is a disruption to the earlier narrative about a person traveling to Florida on an Amtrak train. Whatever the actual meaning there are definite answers:

- <judythejedi> everyone is cool here;
- <Nicole528> is cool lol,
- <Nicole528> is cold too;

and

<tazdevil144> cool.

There are three other responses in this thread that are not answering <Night-Goddess_>'s utterance;

- <AquarianBlue> hmmmmmmm,
- <judythejedi> hi night

and

<sara4u> I LOVE YOU TO MUCH......ACARD".

This last utterance by <sara4u> could have been to an earlier writer but because of the series of responses I would suggest that <sara4u> is referring to <Night-Goddess_>'s utterance. Several turns later <Night-Goddess_>'s answers her or his own question in turn 49 (I is not cool) and in turn 52 (I is awsome) and the thread is continued for several more turns before a new thread is begun with the last reference being in turn 61 (not cool...just me). In this instance the original utterance serves not to illicit specific answers but is meant to be a lighthearted commentary of who may or may not be suitable to continue as a participant in this chatroom.

49)	/\32	10c.	<night-goddess_> I is not cool</night-goddess_>
50)	/\49	5l.	<judythejedi> yup</judythejedi>
51)	/\49	6j.	<nicole528> really</nicole528>
52)	/\49	10d.	<night-goddess_> I is awsome</night-goddess_>
53)	/\49	6k.	<nicole528> yes your cool</nicole528>
54)	/\46	5m.	<judythejedi> loli know prncess</judythejedi>
55)	/\47	61.	<nicole528> cool dingo</nicole528>
56)	/\52	1c.	<gina2b> coolfool</gina2b>

60)	/\47	<nicole528> im a gemini with tauras moon and scorpio rising</nicole528>
61)	∆55	<dingo42>not cooljust me</dingo42>

I also noted the presence of Speech Act Disruptions (SAD) in chatrooms beginning in this chatroom. SADs are disruptions that are particular to chatrooms. On many chatsites these are the advertisements from the chatroom provider. After every so many lines of text, which differ from server to server, there will be an ad to purchase something available from the server. This

disrupts the conversational flow at the time. However, from observing this in hundreds of chatrooms I have never seen anyone refer to the advertisement, instead, participants continue what they were discussing or begin a new topic or thread of conversation. Disruptions are an ignored speech act. The speech act is the ad that says to buy a specific product or go a website to learn more about a service or product.

CS₅

My purpose in using this particular chat was to examine a chatroom with a markedly short turn-taking series, to discover if even in a passing conversation, there was enough time to establish a communication community amongst the chatters present. Discourse in a text-based chat is fleeting as text disappears as it scrolls by. The participant gets one opportunity to read the text after which time it cannot be retrieved. This I have called 'fleeting text'. Online fleeting text affects discursive connectiveness. Spoken language is dynamic, fleeting, irreversible speech, but printed language breaks the strictures of time and leads to permanence. The two together in an online environment has elements of both – what has been said can be 'revisited' as long as the chatroom is showing previous turn takings. Knowing that what is said is not retrievable (along with the identity of the speaker not being known) gives rise to "anything can be said" with little consequence. In some chatrooms a user can be booted off the chatserver but most Internet chatrooms that do not have a moderator will not have the means to stop someone from saying whatever they wish. Therefore the discursive connections that would be made in face-to-face communication do not exist.

Thread-framing is a phenomena in chatrooms, where a topic beginning and ending are marked. In a chatroom these framed pieces of conversation are not necessarily sequential. Threads twist around, stop and start, and several may occur at one time in a seemingly chaotic fashion. Framing gives a starting and finishing point to a thread and in my cases the originator of the thread is the last 'voice' seen on the particular thread. In the example below, <Night-Goddess_> asks if <anyone cool in here?> to begin a frame of the topic of whether anyone is cool in this chatroom and it is ended by <Night-Goddess_> 20 turns later with <I is awesome>.

32) <Night-Goddess_> anyone cool in here?

49) <Night-Goddess_> I is not cool <Night-Goddess_> I is not cool

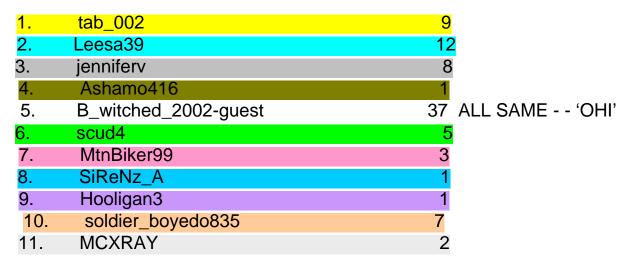
52) <Night-Goddess_> I is awsome

The framing of the thread will determine the contextual arrangement of the discussion. If there is hostility or as shown in Case Study 1, racism, (toward Mexican roofers) the speakers will contribute to the thread in like manner – for example they will support the original statement. Above, <Night-Goddess_> frames the thread, and there are other threads within this sequence, with turn 32 and turn 52. A different speaker can end the thread giving a multi-chatter frame. (see Tannen, 1998; Bays 2000). Without framing a thread can continue indefinitely. Framing is what completes the thought in chatroom discourse.

In this chatroom I asked in particular, 'Does a chatter have a discourse intent when he or she enters a chatroom?' The term chatter would identify a person as one who has become involved in chatroom conversation. Not everyone who is in a chatroom is a chatter. There are those who visit a chatroom and lurk – make no utterances. In chatrooms that list those present in a panel on the chat-site it is obvious when someone has not participated. However, none of the Internet chat-sites that I used for this thesis showed who was online. In Case Study 5 I showed who contributed to the chat conversation and the amount of times they gave utterances. Whether there were another dozen people online at the time did not show – for example I did not participate in chat and therefore was a lurker, and my name does not appear on the list below.

Number of

turns taken in this segment



A person in a chatroom therefore does not display discourse intent until an utterance is given.

CS₆

Using conversation analysis (CA) theory in chatrooms was a useful way to discover how people communicated online. While the 'capturing' of data is different in chatrooms than in face-to-face

discourse there are similarities in what is done in the analysis process. Traditional CA researchers tape record a session and they discuss from a printed readout what happened in the conversation. In the example below from a taped session [21] the time between turns and pauses in the conversation are noted. In CA most work is done with two or three people speaking. In the example below there were two people having a phone conversation. Conversational analysis of chatroom talk shows adjacency pairs and turn-taking common to the techniques of CA and the primary difference as this case study and others have shown is the interjection of conversation before a thought is complete, due to the enter button and the long periods between utterances that are filled with other streams of talk. In example A and B below we see turn-taking and the development of a conversation. In A there are interruptions (for example in turn 45), which is impossible in chatroom turn-taking. Utterances are complete in chatrooms with the only breakage in a particular utterance being made by the user at the time of the utterance – they can press the enter button and the utterance becomes broken. In turns 21-24 below (column B) < Leonard> makes two utterances that are different thoughts but because they are entered sequentially without anyone making an utterance between the two thoughts *<web3dADM>* is left to answer them both as different thoughts sequentially after *<Leonard>*'s entrances.

- 21) < Leonard > Anyone used Xeena?
- 22) < Leonard > 3D just arrived today
- 23) < web3dADM> no it's on my list
- 24) < web3dADM> ahhh great Len

In a face-to-face conversation one would assume that <web3dADM> would respond to <Leonard> saying <Anyone used Xeena?> with the utterance <no it's on my list> and to <Leonard>'s <3D just arrived today> with <ahhh great Len> making the conversation being:

- 21) < Leonard > Anyone used Xeena?
- 22) < web3dADM> no it's on my list
- 23) < Leonard > 3D just arrived today
- 24) < web3dADM> ahhh great Len

In fact <web3dADM> could have been typing in <no it's on my list> at the same time as <Leonard> was typing in <3D just arrived today>. This is the unusual nature of online chat that a user can be responding to an utterance at the same time as someone is typing in another line.[22]

A CA transcription from tape recording	B Web 3D Chat http://se.unisa.edu.au/a6.html

According to conversation analysis, turn-taking is integral to the formation of any interpersonal exchange. Unless one is lurking, the participants in chatrooms demonstrate their knowledge of the chat-site they are visiting in order to be accepted or rejected by others in the chatroom. The signaling of one's status as an insider is important to establish dominance. In the chatroom I used for this case study the topic was on computer animation and it is clear that <web3dADM> is the leader or moderator in this case study, not only because of the abbreviation for administrator (ADM) behind the <web3d> part of the username but because <web3dADM> provides answers to questions people ask in the chatroom regarding the chatroom itself.

The underpinnings of CA, sequential organization, turn-taking and repair, and how they can depict interactional competence is useful in reading chatroom talk. Unlike face-to-face

conversation the sequential organization needs to be separated from what else is being done in the chatroom. The isolating of pairs in the chat is difficult if there are many people chatting and the text is scrolling at a rapid rate. In finding adjacent pairs in Case Study 1 the conversation had to be isolated. What is shown is that there is a turn-taking strategy present between <lookout4110> and <Werblessed> but each utterance had several turns in between.

Turn	Between Utterances	Speaker	utterance	
60.		<lookout4110></lookout4110>	Who is in Wilm. right now?	
64.	4	<werblessed></werblessed>	Im 50 Miles west of Wilm.	
73.	9/13	<lookout4110></lookout4110>	How ya holding up Werblessed?	
83.	10/19	<werblessed></werblessed>	So far just strong wind gusts and lots of rain Over 8 inches so far	
89.	6/16	<lookout4110></lookout4110>	Have the winds been strong?	
98.	9/15	<werblessed></werblessed>	Gusts up to 60-65 so far its starting to pick up a bit Only gonna get stronger Between now and midnite	

The first number in the 'between utterances' column is the number of turns since the previous utterance was addressed and the second number is the number of turns since the last utterance by the same speaker. After these three sets of turn-takings <lookout4110> and <Werblessed> no longer had direct interaction. <lookout4110> made more utterances with the final one being turn 164 and <Werblessed>'s final utterance in this segment was at turn 180.

CA considers repair as part of normal conversation;

"When we consider spontaneous speech (particularly conversation) any clear and obvious division into intonational-groups is not so apparent because of the broken nature of much spontaneous speech, including as it does hesitation, repetitions, false starts, incomplete sentences, and sentences involving a grammatical caesura in their middle" [Cruttenden, 1986, pg. 36].

In chatrooms repairs come about due to two primary causes. The first is shown in column A

below and the second in column B. The first is because a word was typed incorrectly - IroquoisPrncess> says <hey Judy did a get my car inthe link thingy> and 'car' is a proper word but <judythejedi> does not associate the word with the utterance leaving <lrowledge IroquoisPrncess> to correct the error. The second error is due to pressing the enter key and dividing one's utterance because another person has taken a turn between before the repair could be carried out.

Inup://se.unisa.edu.au/a4.numi	From Case Study 6 http://se.unisa.edu.au/a6.html
57) <iroquoisprncess> hey Judy did a get my car inthe link thingy</iroquoisprncess>	40) <leonard> I will be offereing it on- line through Digital University sometime this</leonard>
63) <judythejedi> car in the link? 66) <iroquoisprncess> card</iroquoisprncess></judythejedi>	41) <bri>41) <bri>42) <leonard> spring</leonard></bri></bri>

I found from this case study and the use of conversational analysis that the techniques used in the processes of reading conversation can be used in chatroom analysis also.

CS7

In this chatroom on baseball all the linguistic approaches of grammar looked at do not explain the question asked at the start of this case study; What is the function of grammar in chatroom language? However, I make some observations.

Language in a chatroom is altered both deliberately and by mistake. Miss spellings and changes to language on the Internet may not be deliberate. Typing can lead to accidental changes in spelling and punctuation. On the other hand the grammar of chatrooms, if it is done intentionally is a highly sophisticated form of prose that is semantically innovative and daring.

Below, <CathyTrix-guest> in turn 108 says <2blech> which has no conventional linguistic place but in this chatroom it is appropriate grammar as the '2' refers to an earlier request for chatters to press the '1' (3)? key if they liked the New York Yankees. <CathyTrix-guest> emphases his or her dislike of the Yankees by pressing a different key than '1' and confirming it with a 'blech' which is not a word but has the same letters as 'belch' and most likely would be interpreted as 'belch' which is a fairly conventional vomiting representation. In that turn there is both deliberate and mistaken altered language. In turn 77 <MLB-LADY> asks if 'dd any see the atanta score' with two spelling errors. Assuming the correct wording is, 'did any see the Atlanta score'. I would suggest

that the first miss spelling is a deliberate alteration to save time in typing. The removing of vowels in text-based chat is common, for example: msg for message, ppl for people and plz for please.

As well as leaving out letters single digits are used in place of whole words u – you, 4 – for, r –are, c – see, 2 - to and in 128 below <BLUERHINO11> refers to <dhch96>by using the letter d.

In chatrooms, grammar is a developing protocol. Common practice theories of grammar are applied differently in chatrooms. In society, we use the use to grammar to judge people in terms of social status and education. In chatrooms the rules have changed. A person may be judged by how efficiently he or she types, deliberately miss-spelling words by leaving out vowels as I have demonstrated. Unlike in face-to face conversation, one does not seek to impress others in chatrooms by the correct use of both spelling and grammar.

5.1 Unique features of chatrooms

Electronic chat is not only one small communication exercise among many, but an important part of everyday life. Internet text-based chat is changing with the increasing use of webcams, multimedia and 3D Graphics-based chat communities [23] and the ability to use voice instead of only text. New applications of text-based chat are appearing with the availability of wearable computers [24], including miniature PCs, personal digital assistants (PDA), cellular phone watches, cognitive-radios [25], and electronic performance support systems (EPSS)[26]. Such devices will enable people to access information via networks anytime, even while out walking. What my study has shown is that electronic chatrooms show a current pressure in communications and though it is technology based it is indicative of other life and work pressures. More interesting is the creativity displayed in dealing with the pressure: use of graphics, emoticons and abbreviations as in themselves communicative elements.

From the discussion of the seven primary chatrooms in the case studies and several secondary chatrooms I have found that there are common, "core" elements, present on all web-based chat sites and that there are specialist elements on specialist sites – and if so, is this limited to lexis, or does it extend to other elements of "texted talk"

This study has shown that chatrooms have limitations that conversations in which physical speech is produced do not have. My findings identified in the case studies show what is unique to electronic chatrooms and are summarized as follows:

• Author as reader, reader as author (See, Case Study 1)

As was discussed in Case Study 1 the reader and the author can be the same person at the same time. This can be equated to the listening and response phase of a face-to-face

conversation.

Misleading titles (See, Case Study 1)

Unlike the reading of other sources, chatrooms may have a different title to the chatroom then what is actually discussed. A title of an article or a book specifies what the material being read is about but as has been shown in these case studies, what is discussed in a chatroom often has little to do with the title of the chatroom.

Multiple-Authorship in different chatrooms (See, Case Study 2)

It is often difficult in face-to-face conversation to carry on two or more conversations at the same time but in chatrooms it is possible by having two or more screens visible on one's monitor to have chat happening in several chatrooms at the same time. This can be expanded to having conversations in different locations at the same time, for example speaking with someone in Australia at midnight there and someone in New York in the early afternoon, New York time.

Avatars (See, Case Study 3)

Avatars are representatives of the speaker, based on how the chatter identifies him or herself. The avatar could be an animal, cartoon, celebrity or any object. An avatar is the chatter at the time of textual engagement.

• Emoticons (See, Case Study 3)

Using a series of keyed characters to indicate an emotion, such as pleasure [:-) J] or sadness [:-(L] chatters are able to communicate beyond the 'word' giving faster communication than if one wrote for example, "I am just kidding". As I show below, some emoticons are universal – carrying the same meaning in different languages. The first and most used emoticon is the smiley [27].

• Threads and Discontinuity (See, Case Study 4)

Multi-conversations on varying topics within the same discourse are possible in chatrooms. Unlike face-to-face conversation a topic can end abruptly without others paying much attention, or a new topic can be introduced without warning of a new stream of conversation beginning.

Discontinuity, i.e. popup ads or ads amongst the turn-takings (See, Case Study 4)

A stop in the flow of conversation in chatrooms is caused by ads that are inserted at regular places amongst turn-takings. Different chatrooms will have varying spaces for their ads with some having an ad appear every five turns to ads that popup in the midst of the chatroom.

• Chatroom graffiti (See, Case Study 5)

The messages conveyed through the work of graffiti artists are often highly political and

deliberately aggressive. Some people will go from chatroom to chatroom leaving messages but not participating in actual chatroom converation: I refer to this as chatroom graffiti.

Fleeting text (See, Case Study 5)

Chatrooms, being a synchronous communication form lacks the permanency of an asynchronous form.

Lurking (See, Case Study 6)

To be seen but not heard is a unique feature of chatrooms. Some chatrooms do not show the chatters in the room and therefore the lurker is even more hidden from view. A lurker is able to read and observe behaviour in a chatroom without making any contribution.

Collaborated-Selves (See, Case Study 6)

MUDs and MOOs are collaborated, networked environment where the MOO and MUD itself consists of a number of connected rooms in other spaces. Chatters create a "combined self" to create a space or story or thread in the chatroom.

Spelling, Abbreviations and Grammatical errors accepted as 'normal' (See, Case Study 7)

Abbreviations and grammatical errors are accepted for two primary reasons. Firstly the chatter may have the language they are chatting in as a second language and secondly the speed of "speech" in a chatroom does not provide the time for writing out what can be abbreviated, such as "btw" for "by the way".

The length of the gap between turns is often dependent on, firstly, how many people there are in the chatroom and the amount of turn-takings they are doing. For example, in the "911" chat I have referred to in this study, there were as many as 45 turns in a minute – sometimes there would be two entries for the same second – this leaves little time to construct two turns. Another factor is how fast one is able to type to give a response. Below there are seventeen turns in one-minute.

30.	14:59:49	Pete: Let kill all Palestian terrorist's greetings from Finland ps:morjens Will kuis panee
32.	14:59:54	1Bone!!: HELLLOOOOOOOOOO
33.	14:59:56	oscar: that's not shute will!!!!
34.	15:00:00	MissMaca: hikacked planes, and flew 3 planes into the pentagon.

35.	15:00:02	mike: I think so, miss maca.
36.	15:00:04	sascha: hallo from germany
37.	15:00:08	Hello: How many building are still up in NY
38.	15:00:08	1Bone!!: Whats up in NY?????????
39.	15:00:12	damaged: no then we get a world wore 2
40.	15:00:16	dolly: our news says five planes now
41.	15:00:22	1Bone!!: I'm from germany too!
42.	15:00:23	novyk: who's the author of this ??? Anyone know there ???
43.	15:00:25	sascha: 3
44.	15:00:30	Will: Pete: Siinähän se
45.	15:00:47	sascha: the 3rd world wore
46.	15:00:48	1Bone!!: %&#% 3. Worldwar?!?!</td></tr><tr><td>47.</td><td>15:00:49</td><td>oscar: hello 1 bone, where are you from?</td></tr></tbody></table>

Of these eleven chatters who "spoke", only three had more than one turn in that minute. <1Bone!!:> had four utterances in this minute and I would assume he or she was able to type fast enough in that minute to produce these four short utterances:

33.	14:59:54	1Bone!!: HELLLOOOOOOOOOO
39.	15:00:08	1Bone!!: Whats up in NY?????????
42.	15:00:22	1Bone!!: I'm from germany too!
47.	15:00:48	1Bone!!: %&#% 3. Worldwar?!?!</td></tr></tbody></table>

Metaphysical-chat-linguistics; anticipating discourse

As in face-to-face chat there are sometimes instances when an expected utterance occurs at the same time as one is typing in their words. For example, with only once second difference in utterances <1Bone!!:> would have had to be writing regarding the same topic that < sascha:> was writing.

46.	15:00:47	sascha: the 3rd world wore

48. 15:00:48 1Bone!!: %&#% 3. Worldwar?!?!

Repeated utterances with little or no content i.e 'hello', 'anyone want to chat' (See, Case Study 1)

Short conversational utterances

Another commonality between chatrooms is that talk in chatrooms is limited to short phrases. Rarely will there be more than several words written at a time by a 'speaker'. Counting the words of hundreds of entrances in my seven chatrooms (see table below) and the postscript I found that there was an average of 5.82 units per turn; this includes words, abbreviations, emoticons. Within that sampling 25 percent of words consisted of two letters, and 20 percent consisted of three letter words. Using CMC or the computer as the tool for electronic discourse analysis, introduced in Case Study 2 I found that eighty-three percent of words used in chatroom conversations consisted of five letters or less.

In the seven case studies, I have used several analytical theories to examine chatroom talk. I highlighted certain chatroom features of online discourse in each case study. These features are common to all chatrooms but in using the data from particular chatrooms I isolated the primary components of an online discourse.

Case Study and Data location online	Theory	Methodological focus	Chatroom Features	# of users	Turns recorded	# words_ [1][1]
1. Case Study 1 http://se.unisa.edu.au/1.html Data Location http://se.unisa.edu.au/a1.html purpose chatroom (Hurricane Floyd)	Reading Response Theory	Web of authorship, readership & subjectivity	o 2- readings: title of chatroom & text. o Reading as fact. o Author- Reader same	45	279	2001 Avg. 7.17/per turn
2. Case Study 2 http://se.unisa.edu.au/2.html Data Location http://se.unisa.edu.au/a2.html Instant Messenger (two- person conversation)	СМС	Introduces the technology into the communicative act, and reveals the multilayeredness of the chat	 Real time conversation to many people in different locals. Talk in more than one chatsites at one time. 	2	34	385 Avg. 11.32/per turn

3. Case Study 3 http://se.unisa.edu.au/3.html Data Location http://se.unisa.edu.au/a3.html Celebrity chat (adolescent chat)	Semiotic Analysis	Introduces a socially-embedded reading of communication still regarded as symbolic activity.	Emoticons, virtual chats[28][1], avatars (author as sign/symbol) Celebrities as titles of chatrooms	17	70	294 Avg. 4.2per turn
4. Case Study 4 http://se.unisa.edu.au/4.html Data Location http://se.unisa.edu.au/a4.html Astrology – purpose chat	Speech Act	What a 'speech act' is when it is conducted in written: an altogether different coding.	Disruption: Timed interruption from server's ads. Threads and discontinuity Speech as home. Chatrooms as created place	16	85	Avg. 3.5//per turn
5. Case Study 5 http://se.unisa.edu.au/5.html Data Location http://se.unisa.edu.au/a5.html No topic chat	Discourse Analysis	Symbolic (language) and the (embodied) social/cultural, as linked within practice.	FleetingtextChatroom graffiti	11	89	285 Avg. 3.2/per turn
6. Case Study 6 http://se.unisa.edu.au/6.html Data Location http://se.unisa.edu.au/a6.html Topic (3D animation) chat	CA		LurkingCollaborated-Selves as TheAuthor	8	511	2248 Avg. 4.4/per turn
7. Case Study 7 http://se.unisa.edu.au/7.html Data Location http://se.unisa.edu.au/a7.html Topic – baseball chat	(linguistic schools)		o Abbreviation, spelling and grammar errors.	13	151	1011 Avg. 6.7 /per turn

The above table shows that users of multi-voiced chatrooms, whether they are of a stated topic or not a stated topic, produce less utterances than users in a chatroom that has two people speaking in an Instant Messenger environment. The Instant Messenger chat that I 'captured' had 11.32 words per turn compared to other chatrooms that averaged 3.2; 3.5; 4.2; 4.4; 6.7 and 7.17 words per turn.

- 1) Purpose chatroom (Hurricane Floyd) Avg. <u>7.17/per turn</u>
- 2) Instant Messenger (two-person conversation) <u>11.32/per</u> turn
- 3) Celebrity chat Avg. 4.2per turn
- 4) Astrology purpose chat Avg. 3.5//per turn
- 5) No topic chat Avg. 3.2/per turn
- 6) Topic (3D animation) chat Avg. 4.4/per turn
- 7) Topic baseball chat Avg. 6.7 /per turn

This implies that more is said when only two people are in a chatroom and I would suggest this is so because with several voices seemingly all speaking, it is difficult, unless one is a very fast typist, to respond before someone else does.

Keyboard writing not showing emotions of hand-written correspondence

Many of the findings of the uniqueness of chatrooms can be seen in the table below which highlights the differences between asynchronous (chatrooms) and synchronous (e-mail, Discussion groups) and shows the differences between the two formats:

Synchronous	Asynchronous
time-bound conversation – or real-time communication	on-going conversation – not necessarily the same day
must arrange a specified time to participate to meet	can communicate any time
can interact only with those presently online	can interact with people not presently online
fast and free-flowing conversation may be hard for second language learners to follow (much chat is very informal and relaxed)	slow paced conversation allows more time for understanding and formulating thoughts (more opportunity for formal, thoughtful discussion)

multiple conversations occurring simultaneously may be difficult to follow	conversations are usually arranged by topics
one-to-one (IM) allows for individual conversation	no private conversation on a one-to-one basis
messages are fleeting; can't be referred to later except if saved	messages are permanent for later reference

Chat-types are further defined by the following categories: [29];

1. Initiating messages which successfully stimulate a new discussion.

A commonality amongst chatters is to begin discussional threads with the anticipated result that others will continue it. I have shown this in several case studies, particularly in Case Study 1, when the chatters began a thread on Mexican roofers and others joined in, and in Case Study 7 when a user wanted to know who liked the New York Yankees and several joined in the thread. The practice of thread continuity is to stop a threaded discussion if no one responds to it.

2. Initiating messages which fail to stimulate further discussion,

Taking the thread discussion of above, if no one responds, the chatter may attempt to reintroduce the thread with the anticipated outcome of a conversation developing but if no one does then the thread dies.

- 3. Continuing messages which cause further discussion.
- 4. Continuing messages which create branching branches.

A thread can have several thread nodes branching from the root branch, which has an overall topic but with sub-discussions of the overall topic. For example in Case Study 1 there is the main thread of Hurricane Floyd with several branching threads that are still about the storm but a different aspect of it – such as the discussion about Mexican roofers or the thread about sizes of buildings.

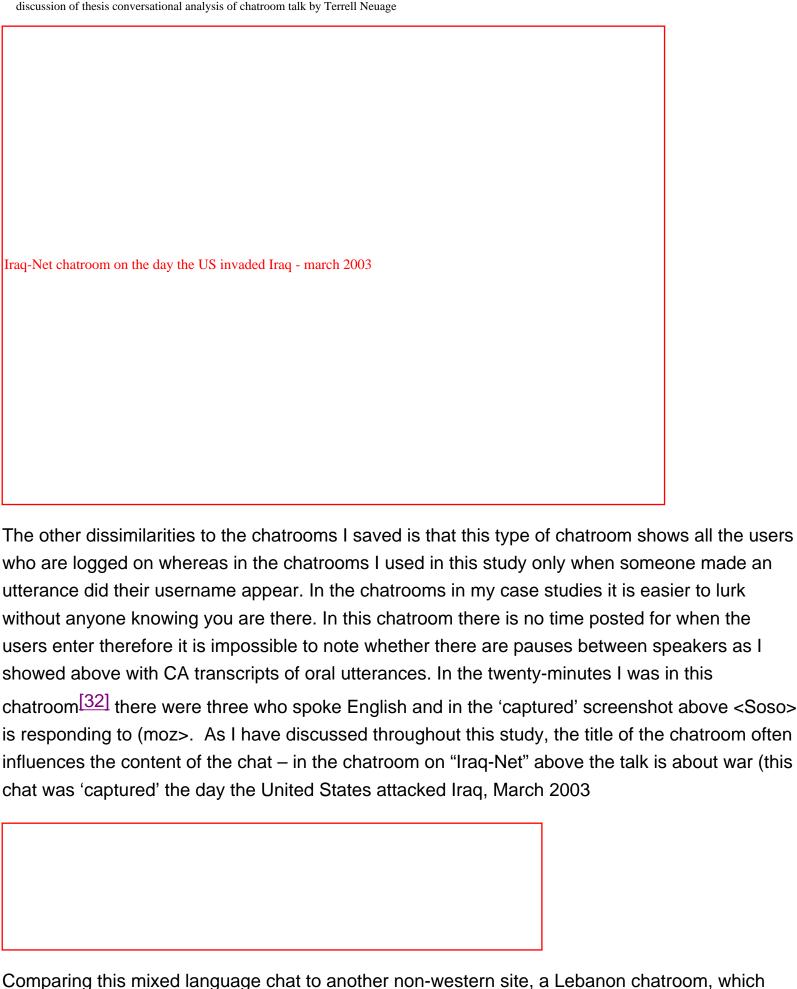
As my research dealt with the linguistics of online chat, it did not attempt to explore how the users felt about their time online. Studies have been done that show that a majority of chatters; 'felt like they could jump right in and chat', 'chat discussions are too superficial', 'chat went too fast because he or she could not keep up with the conversation', '14 out of 15 felt a moderator was needed'. [30] My research has not

identified what people think, but the fact that users can jump in and chat differs from face-to-face conversation in that there is no overlapping or butting in when an utterance is sent to a chat-server. Chat can go too fast if there are many people on at one time, such as in the '911' chat discussed in the postscript chapter when there were dozens of utterances entered into the chatroom per minute. Without a moderator chat can be hectic and any topic can be changed to create new threads – when there was a moderator as in Case Study 6 – the topic stayed focused, I have discussed moderated chatrooms more in the postscript where I compare a moderated chat about the events of September 11th, with an unmoderated chat.

Chatrooms provide one of the most universal forms of communicating. By late 2002 there were 4206 Internet cafes in 140 countries^[31] and wherever there is an internet café there is the opportunity to chat online. In the Middle East there are many chatrooms available and most had translating software for the language of the chatters to be translated into the user's native language. On the chat-server, http://www.chatinternational.com there are the following number of domains that hosted chatrooms currently available (as of December 2002);

Afghanistan (5)	Iran (9)	Lebanon (7)
Armenia (5)	Iraq (5)	Pakistan (15)
Azerbaijan (5)	Israel (9)	Syria (7)
Bahrain (4)	Jordan (4)	Turkey (9)

For example a chatroom on the Iraq-Net domain has some similarities to the chatrooms I have used in all my case studies except that this is a JavaScript chatroom and the log could not be captured as text.



has an instant translator the speaker in this chat is not demonstrating good command of English. But that <semsem> wants to speak with someone is clear. It is possible that this chat was translated into English as the user wrote. Common abbreviations are used that would be found in any Western chatroom such as <how r u> and the emoticon < :) > is used.

One of my findings of this study into chatroom is that titles sometimes had a bearing on the username, such as in Case Study 1, Hurricane Floyd,<IMFLOYD>; Case Study 3, 'Britney Spears Chat' <baby_britney1>; Case Study 4, 'astrochat', <AquarianBlue>, < TheGods>, <Night-Goddess_>; Case Study 6 <web3dADM>, <gordon (Web3DCEO)> and Case Study 7, 'baseball chat' <MLB-LADY> (major league baseball). Usernames both identify how the user views his or her self and also his or her place within the particular chat milieu.

Another finding that this study has shown is that online chat communities do take on social agendas as much as they would in person-to-person meetings. Communities of practice can be communities marked by acceptable and non-acceptable behaviours registered at the level of the doubled speech of chat, with its semiotic loadings of meaning and familiarity. In Case Study 1 it was apparent that there was an ease of the speakers to discuss Mexican roofers in the midst of a discussion of a national emergency. In Case Study 7 the baseball chatroom has a community of practice where the participants are comfortable with their talk. In this case study the participants have not developed an in-depth discussion but there are the same practices of greetings as are shown in face-to-face meetings.

By examining discourse in a chatroom one may affect not only their own world-views but also others'. This is accomplished through exchange in an environment that is considered safe by the user. If the environment is not what the user wants then he or she is able to leave and find one that fits their communication aspirations. The freedom of expression in a chatroom is questioned on legal social, philosophical and political grounds.

5.2 Research Questions and answers

The asking of these questions throughout this thesis and answering them now as well as the twelve questions asked and answered in the seven individual case studies have helped me with the five assumptions formulated at the beginning of this research.

My approach to examining online chatrooms began with the posing of the following five questions [33] as a starting point toward analyzing a culture of electronic-talk:

Question 1. Is turn taking negotiated within chatrooms?

On occasion it is but there is no set protocol or even netiquette outlining turn-taking negotiations online. There are 'rules' of engagement that are common to facilitate interaction in a chat session. The list below appears on many chatroom sites with the following suggestions of how to use chatrooms most effectively.

- Latecomers to the session should scan the previous 10 -20 posts to get oriented before submitting a post.
- Upon entering the chat session, greet everyone and announce yourself.
- If you do not wish to contribute to the discussion, you should still make your presence known by announcing that you are lurking. This is considered polite, especially if you join in the discussion later.
- Wait for others to respond to your initial post before joining the discussion.
- Address individual people you are responding to by name so they know you are talking to them.
- Do not post more than three sentences at a time.
- Allow a few moments for others to read and respond to your message before posting again. This turn taking strategy will allow the dialog to flow between you and the others and avoid crossed messages.
- Break lengthy messages into short segments, each ending with "More..." then continue the message in the next post.
- Be as clear and concise as possible if you think you have been misinterpreted, reword your message and post it again.
- Ask for clarification if you do not understand something posted by someone else.
- Capitalize words only to highlight an important point, otherwise it is considered SHOUTING and is rude.
- When you are ready to leave the chat session, announce that you are leaving but stay long enough to respond to final messages directed to you.
- Say good bye when you are ready to log off. Your last message should end with an indicator such as "LP" (last post).

In seven case studies looking at hundreds of turn taking events I have found that turn taking is negotiated in one way only; that is, the response is put into the chatroom by pressing the enter button. This is true in all unmoderated chatrooms where there is no control to the amount of text one puts in. However, as was shown in moderated text-based chatrooms the 'talk' of a chatter is only inserted into the conversation at the discretion of the person moderating the chat. In other words it is a 'self-controlled' negotiation to a point. If there are dozens of people entering data into a chatroom about the same time, then where one line follows another is a random event and may not be the response one would have put following the prior utterance. For example in the chunk of chat below (from 911 chat), within four seconds four turns were taken and though they were all on the same topic none answered any other and all four may have been in different countries and they could have all pressed the entry button at about the same time. There is also the chatserver that handles the incoming data: it could have received a dozen entries at one time and they

would just have gone in as the server put them in.

164.	15:12:25	<england>: ne one here in nyc or washington?</england>
165.	15:12:27	<1Bone!!>: please, say ricght
166.	15:12:28	<missmaca>: nuke bomb, i don't thinks so!</missmaca>
167.	15:12:29	<oscar>: Camp david? estas seguro?</oscar>

My case studies have shown that there is sensitivity and turn negotiation – for instance, the group excluding some players as in Case Study 5 when others in the group did not respond to <B_witched_2002-guest> or in Case Study 1 when some in the chatroom did not want to continue the discussion on Mexican Roofers because of the racist flavour of the utterances some were making.

Question 2. With the taking away of many identifying cues of participants (gender, nationality, age etc.) are issues of sexism and political correctness, as prevalent, as in face-to-face talk?

Yes. In unmoderated chatrooms (e.g. case study 1, 3, 4,5, 7 and two from the 911 events) there seems to be a 'free for all stream of consciousness' where anything anyone wants to say is said with little restraint. However as has been shown in these case studies, others in the group will respond to someone who is being difficult or not continuing with the immediate discussion.

Other chatters can gang up on a person who is annoying but they are not able to make them leave (online) unless they are the server. People will, however, leave because of how others are reacting. I showed an example of this in Case Study 5 when [OHI] is repeated 37 times in 89 turns by <B_witched_2002-guest>. People can respond to someone that they feel is not appropriate but the person stays in the chatroom. Not always... In the example in Table 5 the chatter < BoOoOosS!> has kicked proplem_IN_RAK>

*** proplem_IN_RAK (213.42.1) has been kicked by BoOoOosS! (bad)

Table Discussion:1 ArabChat

In the example below in the unmoderated chat on 911 [fRANKIE] (says),

<fRANKIE> gina i s a stupid butch (turn 18)

Table Discussion:2 gina i s a stupid butch

as a response to his or her (gina is a female name) utterance,

<gina> I WANT EVERYONE TO RECOGNIZE US AS A CARING AND INTELLECTUAL PEOPLE LIKE OUR GREAT LEADER AHMAD SHAH MASOOD

Table Discussion:3

again, in Case Study 1, there is an incident of racism when a discussion begins about Mexican roofers repairing damage caused by Hurricane Floyd,

<SWMPTHNG> THERE'LL BE PLENTY OF MEXICAN ROOFERS IN N CAROLINA NEXT WEEK
<EMT-Calvin> and those folks will be sent back to mexico

Table Discussion:4

In a moderated chatroom a person's statements go through a moderator. The moderator acts as a filter, where the moderator's 'rules' are applied. For example, sexual, or racial content may be 'moderated' out. Moderation also occurs in these chatrooms as 'self' moderation. People tend to choose their words more carefully in a moderated chatroom; so there are two types of control operating in these chatrooms, self control and control by the moderator. Chatroom control by others in the chatroom is evident in Case Study 1. When <SWMPTHNG> says,

Turn 77. < THERE'LL BE PLENTY OF MEXICAN ROOFERS IN N CAROLINA NEXT WEEK> and begins a thread and is firstly challenged with this line of talk by <guest-MisterD1> 16 turns later but it is <Zardiw> in turn 125. <smptthing.......go back to your SWAMP> that brings this line of talk to an end with <SWMPTHNG> making one last remark in turn 130 – this could have been typed before <Zardiw> had entered his or her turn and <SWMPTHNG> could have pressed the enter key without reading <Zardiw>'s comment – whatever the case there is no more mention of Mexican Roofers in this segement.

75. <swmpthng> THERE'LL BE PLENTY OF MEXICAN ROOFERS IN N CAROLINA NEXT WEEK</swmpthng>
82. <emt-calvin> and those folks will be sent back to mexico</emt-calvin>
85. <emt-calvin> the locals will be the ones to get jobs</emt-calvin>
88. <playball14> they work hard here</playball14>
89. <swmpthng> WHOSE GONNA SEND THEM - THEY'LL BE CLIMBING ALL OVER EVERY HOUSE ON THE COAST SE HABLO ESPANOL</swmpthng>
91. <guest-misterd1> sigh</guest-misterd1>
96. <emt-calvin> folks need to be careful for con artest after the storm</emt-calvin>
101. <kbabe1974> i agree with emt-calvin</kbabe1974>
102. <guest-moreheadcitync> Fortunately our best friend is a roofer!</guest-moreheadcitync>
103. <playball14> everybody out for a buck unfortuneately</playball14>
104. <swmpthng> YOU AINT TALKING ABOUT MEX ROOFERS ARE YOU?</swmpthng>
106. <kikov> you mean carpet baggers</kikov>
114. <swmpthng> i SAW A BUS LOAD HEADING ACROSS THE GEORGIA STATE LINE THIS MORNING</swmpthng>
125. <zardiw> smptthinggo back to your SWAMP</zardiw>
130. <swmpthng> WHAT AABOUT THE CONTRACTORS WHO HIRE THEM?? THEY OUGHT TO BE TRIED FOR TREASON DURING A NATIONAL EMERGENCY LIKE THIS</swmpthng>

Question 3. Will chatroom discourse become a universally understood language?

The Word Wide Web provides text-based chat to communicate with others in Iceland, Azerbaijan, Senegal, East Timor, Madagascar or anyone of hundreds of countries [35] with live broadcast feeds from every country in the world and text-based chatrooms to 'speak' with others. Many text-based sites offer instant translation, meaning that one writes in their native language and it is translated into the language of the

chatroom. On 17 January 1996 Malaysian Prime Minister Mahathir Mohamad, PLO Leader Yasser Arafat, and Phillipine President Fidel Ramos meet for ten minutes in an online interactive chat session [36].

As I have shown in my research, some emoticons are common to a number of languages. Here is an example of a Dutch and a German list. In Case Study 3 I have shown how emoticons represent feelings. In this case study I have cited examples from Dutch, Spanish and Japanese chatrooms and below I show that emoticons have become a universally understood language.



Figure Discussion:1 Dutch emoticons

\				
Die Standard-Emoticons:				
:-)	lachendes Gesicht, "nicht- alles-so-ernst- nehmen"			
:-(trauriges Gesicht, "find' ich schade!", unglücklich,			
;-)	Augenzwinkern, "War nicht so ernst gemeint",			
:-0	"Oh!", Erstaunen, Erschrecken,"Aaa" beim Zahnarzt			

Table Discussion:5 German emoticons [37]

En attendant je fais du gros boudin spour pas dire d'autres choses moins polies spour pas direction de la complex de la co

Table Discussion: 6 Spanish emoticons

<ÇÞæáå> ããßä ÈäÊ ãä ÇáÞØíÝ Êßáãäí ÇÐÇ ããßä ¿¿ (^_^)

Table Discussion: 7 Arab emoticon

Question 4. How is electronic chat reflective of current social discourse?

This was one of five questions I asked at the start of this project in early 1998. After five years of research into text-based Internet chat I would suggest the question turned around would be closer to how communication is changing. In other words I would ask whether current social discourse is reflective of electronic chat? I would suggest that the answer is that electronic chat has become a current social discourse. As people, at least in Western societies, who have access to communicative devices from cell phones (mobile phones) to computers in all sizes and portability discourse will have the features that have been discussed in this section. As devices become smaller to communicate through, texted-messages will need to be shorter and the use of abbreviations and emoticons will need to take less letter space. The more people go online the more conversation will need to be understood in the electronic environment.

One of the problems with online conversation is with understanding what is being said when the traditional physical cues are deleted. Can conversation even exist without knowing anything about the participants or who the audience is? My research says yes! People are fully able to communicate as long as there are structures to communicate within. These structures have a linguistic base, which "stand in" for our categorisation of speakers and have been further explored in the case studies. It is the shared language and the rules of e-chat that will make online linguistics meaningful.

People are communicating with social groups as never before as has been shown by the number of people online worldwide (1.4 Online usage) - which is close to one in six people being connected.

A comparison is made below with chat from Case Study 7, a baseball chatroom and a Chinese chat; the chat in the left column is numbers, the chat on the right uses letters, and except for <wu~yuan~you> in the last line who says hehehe after a series of words in Pinyin there are no words 'spoken'.

Case Study 7 – baseball chatroom

Chinese chatroom

[38]

Question 5. Is meaning communicated within Chatrooms?

I suggest that meaning is communicated within chatrooms. As I have shown throughout this study and especially in Case Study 3 emoticons provide added meaning to what is 'said'. There are also times when a participant will ask for clarity on what someone had said as in the example from Case Study 1 below shows.

```
<playball14> everybody out for a buck unfortuneately
<SWMPTHNG> YOU AINT TALKING ABOUT MEX ROOFERS ARE
YOU?
<KikoV> you mean carpet baggers
```

5.3 Assumptions at the beginning

The current study however contains no hypothesis, beyond the view that the texted talk emerging in Internet chatrooms is so far undescribed, and requires a very broad review of all possible analytical approaches, in order to isolate which features of existing techniques best address its particular properties. This study is, to that degree, entirely empirical.

I posed five assumptions at the beginning of the research on conversational analysis of chatroom 'talk'. These were based on the reading of the literature on discourse theory and how they could be applied to text-based chatrooms. The questions in 5.4 were asked in the methodology chapter (3.2) as a way to explore these assumptions presented in the literature review (2.7):

Assumption 1. That people create a different 'textual self' for the chatroom environment they are in.

This was my original assumption when I begin looking at text-based chatrooms in mid-1997 before putting in a proposal to begin this research. When I visited a dozen chatrooms I found that there were quite different language speech styles being carried on in different rooms. This would seem reasonable, just as in person-to-person offline (p2p-off) conversation is different in different social settings. I would expect to see this online. What is missing in chatroom is the verification method to prove that the same person is in another chatroom. Because of not knowing who the author is this can only be assumed to be correct through anecdotal methods such as asking others if they create a different 'textual self' in each chatroom she or he goes in. As such it is impossible to verify. I have asked this question of my students at the University of South Australia over a two-year period. I asked (four classes of 20 students each in both 2001 and 2002, 160 students in total) if they created a different 'textual self' in various chatrooms and the overwhelming consensus was that they did. I defined the 'textual self' as the self a person wanted others to believe they were. This included gender swapping, language change; i.e. from being rude to others to sounding academic, and changing their nationality, age, beliefs and name. For example few students, 12 out of a survey of 127 students, used the same username in more than one chatroom.

It is difficult to know who the chatter is. Some chatters have a link to their 'homepage' from their username which may contain more information about the person but this information too could be false. As Daniel Chandler says in his "Personal Home Pages and the Construction of Identities on the Web" (http://www.aber.ac.uk/~dgc/webident.html).

..the created 'textual self' is how the author wishes others to see them. "The medium of web pages offers possibilities both for the 'presentation' and shaping of self which are shared either by text on paper or face-to-face interaction. I suggest that the username or icon depicts how the chatter wants others to see him or her.

This suggests that the 'textual self' can present itself as a less constructed "reality" in the constructed exchange of on-line presentation. The identity is often a fleeting identity: one that is created for the chatroom one is in. Even while in a chatroom a user can change names or icons but the chatter retains the same identity in real-life. This new identity can assume a new role and change the type of talk. For example one can change gender, age or nationality or change their avatar or icon from an animal to an object. Because the user is logged in the chatroom there is an indicator in the chatroom that the user has changed such as
boomrat> is now known as <sillycat>. Therefore the others in the chatroom would observe that the chatter is still, in real-life, the same person. However the textual self wants to be presented is now another identity. For example the chatter may switch from being aggressive to being passive or from loving to hateful by changing names or icons and textually acting out the username.

Assumption 2. That conversation within chatrooms will change how we come to know others.

Traditionally how we have come to know others is through meeting them person-to-person. People meet

through chatrooms and work out problems, meet in person, get married, or learn about someone's culture as well as they would if they were together in person. Because of the text-based chat form there is only mind present and people are attracted initially to another person or group based solely on the written text. Misunderstandings can easily occur due to the absence of verbal cues or body language; in addition, sarcasm and irony can be easily misinterpreted. Emoticons, if not understood can add to confusion – however, standard emoticons such as a smiley are understand by most who use electronic mediums for communication. These are very primitive compared to the quality and quantity of visual cues that are present in a 'real life' conversation. For example, arguments between couples can occur because of hastily written thoughts that are misinterpreted by the receiver. Most relationships, whether friends or lovers, on the Internet, begin as friendships and are thus completely based on communication. All this talking produces an in depth understanding of the other person's thoughts and feelings; which some may call the most important part of knowing another person. Instead of knowing someone by the initial appearance we do when in face-to-face meetings, Internet communication relies solely on knowing someone by how and what they communicate. However, it is possible to communicate only to the extent that participants have some common ground for shared beliefs, recognize reciprocal expectations and accept rules for interaction which serve as necessary anchors in the development of conversation (Clark and Shaefer, 1989).

Our meeting of others in a social context has changed because of the technology of communication (Meyrowitz, 1985). The influence of social context on the construction of identity is beginning to change, especially in younger people, as reference communities like the family, school or church, which in the past anchored social contexts in shared sets of rules, gradually loose their appeal. A description of what this world could be is by William Mitchell in his "City of Bits" (1995)[39]: "a worldwide, electronically mediated environment in which networks are everywhere, and most of the artifacts that function with it (at every scale, from nano to global) have intelligence and telecommunications capabilities...Commercial, entertainment, educational, and health care organization will use these new delivery systems as virtual places to cooperate, and compete on a global scale" (pp. 167-168).

Assumption 3. That observational study of chatroom conversation can capture some of the adaptations of conversational behaviours

Community for persons living in a technological environment, using textual chat forms as a primary communicative means is shifting from culture-defining mass media to that of a proliferation of media as alternative sources of mediated experience. This shift in the style of person-computer interaction is beginning to orient chat users to forms of interaction based on psychosociological and conversational models, but at the same time it has introduced new types of interactional structuration, which sometimes differ from traditional psychosocial descriptions of

interaction. Even in telephonic communication, which predates digital computer technology, there can be no doubt that interlocutors do interact, even though they cannot see each other. Text based chat can capture what is required in face-to-face talk to exchange messages

Assumption 4. That this work gives us a better understanding of how, and why, chatrooms are an important area in which to create a new conversational research theory.

The purpose of this study has been to establish the means by which to construct a theory of online communication. I chose chatrooms over other forms of electronic discourse firstly because of its wide spread usage and the amount of data that is collectable. Unlike email that is private, chatrooms are a public viewable platform in which to do work in. As electronic chat moves from desktop computers to Palm computers and cell phones (mobile phones) with Short Message Service (SMS)^[40] text, the origins of textual communication is the chatroom. Instant Messaging Emoticons and abbreviations are the same as what is used in chatrooms on computers.

Assumption 5. That 'chat' does not differ from natural conversation.

My findings are that chatroom conversation is similar to 'natural language' in several ways but unlike my original assumption there are "conditions" for similarities.

1. In natural language or face-to-face conversation there is the need to exchange meaning. In chatrooms meaning is exchanged via turn-takings of written text. As I have shown in this study, chatters will ask to be re-informed on a topic if they are unsure of what one is saying and a chatter will "re-pair" their utterance to make it clear if someone questions what he or she has said.

Case Study 4
57) <iroquoisprncess> hey Judy did a get my car inthe link thingy</iroquoisprncess>
germy can manage
63) <judythejedi> car in the link?</judythejedi>
66) <iroquoisprncess>card</iroquoisprncess>
00)<110quoisi 111ccss>cairu

Chatters in a chatroom will ask for clarification of an utterance as he or she would in face-toface chat.

```
Case Study 1

105) <SWMPTHNG> YOU AINT TALKING ABOUT MEX ROOFERS ARE YOU?
```

3. Chatters that are of the same community can easily converse in a similar "culture-bound" text base, which is similar to a group's slang^[41],

98.	<nmmprod></nmmprod>	if you like the yanks press 3
99.	<dhch96></dhch96>	111111111
100.	<bluerhino11></bluerhino11>	got it
101.	<dhch96></dhch96>	1111111
102.	<smith-eric></smith-eric>	555555
103.	<dhch96></dhch96>	11111111
104.	<dhch96></dhch96>	111111
105.	<cathytrix-guest></cathytrix-guest>	2I hate the Yankees
106.	<smith-eric></smith-eric>	don't have a 3
107.	<pizza2man></pizza2man>	12456789
108.	<cathytrix-guest></cathytrix-guest>	2blech

4. Turn-taking can take place as it would in a face-to-face conversation, however, it is easier to maintain in an Instant Messenger service chatroom than in a multivoiced chatroom where turn-taking can become a random event.

As one of the latest in interaction communication forms to exchange meaning through, chatroom rules for 'talk', though being changed constantly, are beginning to be uniform in what is expected behaviour of the participants. As has been discussed in the individual case studies, different chat environments may have different rules of 'talk'. And just as every social grouping has rules of conversational engagement, online 'talk' has to have some order, sometimes more strictly than others, for discourse to continue. Examples of

rules that would be considered standard protocol are on the Xena chat site (http://se.unisa.edu.au/phd/xena.html) as well many other sites which discuss Netiquette (a comprehensive one is at: http://www.fau.edu/netiquette/net/netiquette.html).

5.4 Final thought

This discussion of a conversational analysis of chatroom talk shows that online communication is a new discourse genre that will impact on the way humans exchange messages and find meaning. Chatroom discourse involves collaboration unlike any other discourse. In this sense, and in many other ways, as I have discussed at length in my thesis, chatroom has unique features which, in my view justify its classification as a new genre. The adage that the world is shrinking because of the ease of travel can be applied to the ability to "speak" with anyone who is online at anytime anywhere in the world. As computer chips increase in power and shrink in size the ability to text message has no more limits than that one can view or write the text.

[1] See http://se.unisa.edu.au/phd/ethics.htm for my original proposal to do this thesis in 1998 and http://se.unisa.edu.au/this2.html for the original work started in February 1998.

[2] Below are a small selection of historical timelines on the Internet. Viewed 9-28-2001

Global Networking: a Timeline1990-1999 http://www.ciolek.com/PAPERS/GLOBAL/1900late.html

Brief history of the Internet http://allsands.com/Computers/briefhistory_wqe_gn.htm

Hobbes' Internet Timeline http://www.funet.fi/index/FUNET/history/internet/fi/HIT.html

History of the Internet http://www.specialistepr.co.uk/manual_history.htm

[3] An example of graphical conversations is available in Judith Donath's course on graphical conversations. Designing Sociable Media, is at http://smg.media.mit.edu/classes/SociableDesign2001/GraphicalConv.html viewed 9-3-2001

[4]

4. <TIFFTIFF18> DO U MOW IF ITS GONNA HIE JERSEY AT ALL

- 5. <Werblessed> Where your hous thilling
- 6. <Kitteigh-Jo> near Princeton
- 7. <RUSSL1> right over my place
- 8. <ankash> New Jersy in under Tropical Storm Watch now Right?
- [5] I refer to a thread as two or more utterances by two or more participants on the same topic.

[6]

15. <mahmoo></mahmoo>	brbgotta	go get me	some chocolate

- 23. <mahmoo> dark chocolate
 - 25 <playball14> chocolate and carmel oh yeah
 - 163. <mahmoo> 33.5 oz Hershey's Special Dark Chocolate
 - 171 <mahmoo> oops 3.5 oz
 - 177 <KikoV> mahmoo, you send spices, I send Hershey's ...even steven

[7]

221.	<miss-zena></miss-zena>	clear and sunny.But I was born in Texas
231.		I'M IN LOWER SOUTH CAROLINA MISS ZENA - USE TO TRAVEL ALL OVER CALI WHEN I WAS GOING THROUGH MY SELF-DISCOVERY THING
235.	<miss-zena></miss-zena>	no up between LA and Sa Francisco
240.	<swmpthng></swmpthng>	CHICO,RED BLUFF, SANTA CRUZ MISS ZENA??
245.	<miss-zena></miss-zena>	I am south of there
248.	<swmpthng></swmpthng>	EVER BEEN TO PORTLAND MISS ZENA

254.	<miss-zena></miss-zena>	i flew over Portland
256.		PORTLAND IS JUST LIKE CALI USED TO BE-FULL OF GOOD PEOPLE WHO LET IT ALL HANG OUT
272.		SEATTLE IS TOO MUCH LIKE MODERN DAY FRISCO -GIVE ME OREGON ANY DAY (EXCEPT THERE AREN'T ANY SWAMPS THERE) MISS ZENA
280.	<miss-zena></miss-zena>	yes I went to Washington to move there but after 2 weeks I moved back to California

[8] Some of the definitions used in CA can serve as a starting point to describe what happens in between these turns. Three terms in common CA practice are gap, lapse and pause. A gap does not "belong" to anyone. It is a place of transition. A gap is a silence; the speaker has stopped speaking, and the next speaker 'self selects'. In chatrooms this silence may be occupied by others reading the chat.

When there is a silence, the next speaker has not been selected, and no one self selects, we have a 'lapse'. It is only possible to distinguish a gap from a lapse after the event. Again in chatrooms, the next speaker may already be writing the response, reading the previous response, or there may simply be a silence in the same sense as the CA definition.

A pause is silence when the current speaker has selected the next speaker and stopped talking, but the next speaker is silent. A pause is also silence that occurs within a participant's turn. A pause "belongs" to the person currently designated speaker.

- 1. *** asim has joined #beginner 2. *** A-SirD-Bot has left #beginner 3. *** A-SirD-Bot has joined #beginner 4. *** nybbler905 sets mode: +b *! *@ 200-184-112-212.intelignet.com.br 5. *** nybbler905 sets mode: +b *!*@ 203.135.47.1 *** we2 was kicked by "BeginBot" (banned from channel) *** asim was kicked by "BeginBot" (banned from channel) 8. *** young-male has joined #beginner 9. *** BARNIT YA has joined #Beginner 10.*** CRONOS 405 has quit IRC (Ping timeout) 11.<primz1> dont know much about it <<<<< 12.*** Guest39262 has joined #beginner 13.*** DjNttin has quit IRC (Ping timeout) 14.*** rybbler905 sets mode: -b *!*@ 203.135.47.1 15.*** AlertMe has left #Beginner 16.*** sweety49 has joined #beginner 17.*** 'Peer_Away' sets mode: -b *1*@ 202.151.228.95 18.*** ET is now known as Guest10473 19.*** kitty-mews sets mode: -b *!*joaoa@*.intelignet.com.br 20.*** ry bbler905 sets mode: -b ***@ 200-184-112-212.intelignet.com.br 21.*** erin22 has joined #Beginner 22.*** jooe has joined #Beginner 23.*** Neo has joined #beginner 24.*** rykbler905 sets mode: +b *!*@ppp06-iligan.moz.com.com 25.*** Guest39262 was kicked by nykbler905 (Clone Removal of *!*@ ppp06-if 26.*** Neo was kicked by nybbler905 (Clone Removal of **@ppp06-iligan.mo: 27.*** ci-be-rawit has quit IRC (Ping timeout) 28.*** adam has joined #Beginner 29.*** jooe has left #Beginner 30.*** jabin has quit IRC (Quit:) 31.*** sand and scents is now known as depths 32.*** doztoolkit has joined #8 eginner 33.*** guitarguy 18 has joined #beginner 34.*** Guest49548 has joined #beginner 35.*** Elaijah has joined #Beginner 9 36.<abrackets | 36.36.36.dibztoolkit> whata go ing on in here <<<<<<<<<<<
- [10] I know who the speakers are in this Instant Messenger example hence I am able to identify them as male and female. In most cases this would be impossible on the Internet.

[11]

1.	gina2b	4
2.	dingo42	11
3.	AquarianBlue	19
4.	Seoni	5
5.	judythejedi	22
6.	Nicole528	24
7.	kilya	3
8.	TheGods	3
9.	IroquoisPrncess	5
10.	Night-Goddess_	7
11.	poopaloo	1

12.	* sara4u	1
13.	jijirika	5
14.	safetynet10	6
15.	tazdevil144	3
16.	tazzytaz1o1	6

[12] For further studies in gender and cyberspace and indentification in chatrooms see Flanagan and Booth, 2002; Shade, 2002; Turkle, 1984, 1985. See also GENDER AND PARTICIPATION IN SYNCHRONOUS CMC: AN IRC CASE STUDY at: http://jan.ucc.nau.edu/~ipct-j/1999/n1-2/stewart.html viewed March 29, 2001.

[13] HAPPY NEW YEAR WITH LOL AND ABUNDANT BLESSINGS
12/11/02 HAPPY NEW YEAR WITH "LOL" LOTS OF LOVE WITH JOY AND PEACE AND
ABUNDANT BLESSINGS ALWAYS!! MAY YOU HAVE A VERY JOY FILLED, HEALTHY,
SUCCESSFUL AND MOST PROSPEROUS NEW YEAR!! From all of "US" at 'VILLE DeTROIT'with
"LOL" Lots Of Love Always!!! Viewed at

http://www.new2u.com/classified_detail.cfm?classified_ID=2919 Viewed March 04, 2002

- [14] 'Learning-on-line' http://www.learningonline.org/ Viewed March 04, 2002
- [15] 'Liechtenstein on-line' http://www.lol.li/ Viewed March 04, 2002.

[16]

By Karen55 on Tuesday, December 10, 2002 - 08:28 pm:

"lots of luck! LOL the one time we tried to have a pic made of the 4 kids, 2 were crying, one was rolling her eyes and the other looked totally irritated!" Viewed at http://www.momsview.com/discus/messages/23/9571.html March 04, 2002

- [17] 'THE LOL AND THE VIP' Most people know what a V.I.P. is, (Very Important Person), and many know what an L.O.L. is, (Little Old Lady). http://www.trainweb.org/oldtimetrains/Various/lolvip.html Viewed March 04, 2002.
- [18] "Britney Spears chatroom" lists 63 sites as of November 23, 2001 on the Google Search Engine.
- [19] (see, http://www.britney-spears-portal.com, http://www.britney-spears-portal.com, http://www.britney-spears-por

http://www.superosity.com/britney/home.htm)

- [20] To make this observation I have had to make the assumption that a chatroom with a name like Britney Spears is likely to attract a younger group of participants than a chatroom on 3D animation (Case Study 6) for example. Though it is impossible to verify this, it is I believe a reasonable assumption based on the research of Hamman (1996, 1998), Rheingold, (1994, 1999), Spender (1995), Turkle (1995, 1996).
- [21] This is a page from several pages of a CA workshop held on Fridays in 2002 at the State University of New York at Albany.
- [22] For example in the Postscript discussion of the 911 chat during the World Trade Centre destructions there were 644 turns and 4833 words of spoken text covering 80 minutes or an average of 8.05 turns per minute. Often there were utterances logged at the same second.

595	16:14:08	tippybond: can someone field me to another other chats for ny
596	16:14:08	Gary: i woke up to this and i just cant belive itmy heart goes out to all who have been injured

[23] Active Worlds, a Virtual-Reality experience, lets users visit and chat in 3D worlds that are built by other users. Viewed 12-2002, http://www.activeworlds.com/

ATMOSPHERE, with Adobe® Atmosphere™. With Atmosphere, users add a third dimension to their Web experience by creating realistic and immersive environments that offer a revolutionary approach to content, navigation, community, and communication. Viewed 12-2002, http://www.adobe.com/products/atmosphere/

EXCITE CHAT, Text-based and graphics-based chat, events, and web content. Viewed 12-2002, http://www.excite.com/

HABBO HOTEL, Graphics-based chat where the user visits different hotel rooms or creates his or her own room. Viewed 12-2002, http://www.habbohotel.com/habbo/en/

Moove German-created 3D visual chat program. Viewed 12-2002, http://www.moove.com/

A continually updated list of other 3D chatrooms are at http://www.thescarletletters.com/Blah/LipSync.html Viewed 12-2002.

- [24] Mann (1997) suggests five characteristics of a wearable computer:
- (1.) it may be used while the wearer is in motion;
- (2.) it may be used while one or both hands are free, or occupied with other tasks;
- (3.) it exists within the corporeal envelope of the user, i.e., it should be not merely attached to the body but becomes an integral part of the person's clothing
- (4.) it must allow the user to maintain control;
- (5.) it must exhibit constancy, in the sense that it should be constantly available.
- Mann, S. (1997) Conveners report of CHI '97 Workshop on Wearable Computers, Personal Communication to attendees. Viewed 12-2002 at http://www.bham.ac.uk/ManMechEng/IEG/w1.html
- [25] Cognitive radio, a radio that is programmable to send messages on its own is part of the array of

devices for wireless providers, for voice and data communication for the fourth-generation, or 4G, wireless services beginning in 2004. Viewed 12-2002 http://www.techextreme.com/perl/story/20731.html

- [26] Electronic Performance Support System Viewed 12-2002 http://wearables.gatech.edu/EPSS.asp
- There are two claims for the origins of the smiley. One is that in 1972 Franklin Loufrani a journalist created a simple concept for France soir and other European newspapers, he displayed icons to communicate news and especially good ones. He gave this original icon the name of Smiley, it was published for the first time on Jan 1st 1972. Under Loufrani's supervision, SMILEY quickly spread across the world, easily crossing political, social and economic boundaries with his ever-increasing vocabulary of instantly recognizable emotions. (See, The Smiley World at http://www.smileyworld.com/). The other claim for the origin of the smiley is that artist Harvey Ball created the first "smiley face" around December 1963 for one of his clients. He designed a yellow pin with the smiley face. This pin was handed out to company employees and clients and soon became a big hit. In a short time the "smiley face" appeared on all sorts of products. By the end of the 60's "smiley" had spread around the world. (see World Smile Corporation at http://www.worldsmile.com/). World Smiley Day has been proclaimed for October 03, 2003.

- [29] (See, four possible types of message posted to a mailing list McElhearn, $2000^{[29]}$, and Gruber, 1996)
- The results cited are from a survey on Assessing Student Learning Outcomes online at http://www.csusm.edu/acrl/imls/Q3Report.htm Sited online October 21, 2000. Other online surveys and viewers responses are; Test of an internet virtual world for teen smoking cessation online at http://www.trdrp.org/PageGrant.asp?grant_id=2423; Hispanics in the U.S. 16 years of age and older, 38 percent are using the Internet on a regular basis, according to a new study released by AHAA and 43% are using the Internet for chatrooms, http://www.ahaa.org/Mediaroom/Roslow%20Research%20Study.htm. INTERNET USE AND THE SELF CONCEPT: LINKING SPECIFIC USES TO GLOBAL SELF-ESTEEM College freshmen at a mid-sized university in the mid-Atlantic of the USA were surveyed on chatroom behaviour http://www.uiowa.edu/~grpproc/crisp/crisp.8.1.html
- [31] Cybercafes worldwide are added constantly to at http://www.cybercafes.com/ Sited November 30, 2002
- [32] This was 'captured' 7 March 2003 shortly before the US invasion of Iraq.
- [33] I have also begun each of the seven Case Studies in Chapter 4 with question_S that I answer in the Case Study.

- [34] This same list has also been sited on other chatroom sites, such as;
- http://dragon.minopher.net.au/WebEd/protocol.htm; Florida Atlantic University http://www.fau.edu;
- Kapi'olani Community College http://www.kcc.hawaii.edu/; Illinois Online Network
- http://illinois.online.uillinois.edu and on the University of Illlinois site http://www.uiuc.edu/
- [35] Many countries have chatrooms, one mega chatsite is http://www.europeaninternet.com/http://www.europeaninternet.com/
- [36] Global Networking: a Timeline1990-1999 http://www.ciolek.com/PAPERS/GLOBAL/1900late.html
- Brief history of the Internet http://allsands.com/Computers/briefhistory_wqe_gn.htm
- Hobbes' Internet Timeline http://www.funet.fi/index/FUNET/history/internet/fi/HIT.html
- History of the Internet http://www.specialistepr.co.uk/manual_history.htm
- [37] Die Gewinner des O`Reilly 'best new smiley' Wettbewerbes. Hier zum ersten Mal in einer deutschen Übersetzung: http://www.heisoft.de/web/emoticon/emoticon.htm
- [38] Chinese chatroom at: http://zhongwen.com/chat.htm viewed 8-12-2001
- [39] See http://mitpress2.mit.edu/e-books/City_of_Bits/ for information on this.
- [40] SMS was created when it was incorporated into the Global System for Mobiles (GSM) digital mobile phone standard.
- A single short message can be up to 160 characters of text in length using default GSM alphabet coding, 140 characters when Cyrillic character set is used and 70 characters when UCS2 international character coding is used.
- [41] An online slag dictionary of words common to social groupings is at http://mrspock.marion.ohio-state.edu/behan/271slang_dictionaries.htm