CHANGES IN ENGLISH WRITING
IN COMPUTER MEDIATED COMMUNICATION:
A CASE STUDY

Ranran Yang

Submitted in partial fulfilment of the requirements

for the degree of Magister Artium in the Faculty of Arts

at the Nelson Mandela Metropolitan University

January 19th, 2006

Supervisor: Prof. Pieter Duvenage

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ACKNOWLEDGEMENTS

We begin as mustard seeds. Our lives are nurtured by those who inspire us, love us, teach us, forgive us and share with us. Thank you to the following people who have walked the past year with me and who have enriched my life and my learning.

I thank my parents for their continual love and support throughout this study, and for providing me with the opportunity to live my dreams. To my grandparents, for their unending love and support, and for blessing me with this opportunity to learn.

To my supervisor, Prof. Pieter Duvenage, thank you for providing me with the opportunity to undertake this study under your guidance. Thank you for your excellent supervision, your continuous enthusiasm, support, encouragement and guidance throughout this research.

I thank Mr. Han for his encouragement, support, patience and enduring friendship throughout.

To those of you who assisted me in this field, too many to mention, thank you for the time and effort invested in this study. Without your help this study would not have been possible.

ABSTRACT

This research study aims to identity the shifts in form and function of English writing in Computer Mediated Communication (CMC) and determine whether writing changed through CMC. It critically evaluates English writing in CMC in South Africa, and includes a case study of both synchronous and asynchronous forms of CMC.

Chapter 1, outlines the problem concerning the changes of writing in both form and function in the present age of CMC. This chapter, also gives a detailed description and outlines the methodology of this study.

Chapter 2, centres on the historical and theoretical aspects of writing using the work done by scholars such as McLuhan, Shlain and Baron. The literature is divided into two subsections. The research and theories highlights the importance and complexity of writing in human history. It also gives insight into understanding the impacts of different mediums on writing. This chapter similarly depicts an understanding in the use of writing to represent language, and in particular, how speech and writing divvied up communication functions in literature societies.

Chapter 3, gives a detailed theoretical and critical outline of writing in the present age of CMC. Based on the nature of the computer medium, writing in CMC often has its own characteristics which can serve both developmental and social purposes. The aim of this chapter is to grasp an appropriate analogy through which to capture the changes the computer technology would engender in writing communication, and re-examine the relationship between writing and speech in CMC.

Chapter 4, comprises of an empirical research study done in South African on-line discourse, focusing on the changes of writing in CMC. The hypothesis of this case study is that writing in CMC differentiates the conventional writing in a variety of ways. Therefore, the study looks at the particular writing style in CMC and determines whether computer-mediated writing is gradually becoming a mirror of speech. This chapter explains methodology and the process of data coding in this case study. It also includes a summary of the survey results, as well as a discussion of the findings from this case study.

Chapter 5, includes a conclusion of this study and suggestions for further research. It is the hope of the researcher that this study will provoke questions and thoughts for further inquiries.

CHAPTER ONE: INTRODUCTION

The importance of writing is highlighted in Robinson's (1995:7) argument that "without writing there would be no history". However, as we enter the millennium, writing is "undergoing major shifts in form and function" (Baron 2001:1). Messages that once were delivered orally in person or through carefully phrased formal letters are now transferred through the electronic medium.

In South Africa, Computer Mediated Communication has become increasingly popular in recent years. In the public online sphere—chatrooms and newsgroups which deliver synchronous and asynchronous CMC messages, similar to those on the Internet and on commercial online services found in the rest of the world, have emerged as the most popular public forums for people to communicate with each other. Since "the primary act involved in CMC is that of writing" (Jones 1995:12), it is important to re-examine and revaluate the situations of written language in the present age of Computer Mediated Communication (CMC).

1.1 Objectives of This Study

Inspired by McLuhan's aphorism "the medium is the message", this research attempts to identify and evaluate the shifts in form and function of English writing in Computer Mediated Communication (CMC), to find out about the nature of computer technology and its effect on writing, and to determine whether writing becomes more expressive in CMC. This study is designed to provide a better understanding of writing within the context of CMC.

Specific objectives

1. To undertake an analysis and conduct a research study of writing in both synchronous and asynchronous forms of CMC.
2. To examine the impact of computer technology on writing.
3. To critically evaluate the changes in writing in the present age of CMC, comparing to the traditional writing through other mediums, and draw together the standards of thinking about speech and about technology.
4. To determine whether writing changed through CMC.

1.2 Main Concepts

- <u>Computer Mediated Communication</u>

Computer Mediated Communication (CMC) refers to a new form of communication which is conducted through the medium of a computer, including both information manipulation and synchronous and asynchronous interpersonal communication.

- <u>Cyberspace</u>

Cyberspace is generally used to refer to the space one is in when conducting Computer Mediated Communication. The term "cyberspace" has also been coined to capture the notion of a world of information present or possible in digital form. It includes World Wide Web, BBS, Usenet newsgroups, listserves, MOOs, MUDs and so on.

- <u>Chatroom</u>

Chatroom refers to a public forum on the network in which synchronous communication is delivered through transmitting one person's typing directly to the monitor of another person or group of people.

- <u>Newsgroups</u>

Newsgroups are public fora on the network which store, deliver and process asynchronous communication and the users are allowed to send messages to a database divided under subject headings to facilitate electronic mails between multiple users on diverse subjects.

1.3 Main Research Themes and Questions

This study is about writing; it is also about change. Change in the techniques and reasons for writing English; change in how writing is related to its alter ego—speech.

Writing is a technology that changes thought (Ong 1982:26). In a sense, technology also makes writing important because "[c]hoice of writing implement and the medium upon which written marks are inscribed can influence the shape and choice of the symbols themselves" (Baron 2000:20). It refers to the changes in the techniques and reasons for writing English. Thus an important research question of what is the effect of computer technology and the context of CMC on writing comes.

Like their counterparts elsewhere, users of chatrooms and newsgroups in South Africa have altered accepted practices in writing and added new orthographic devices such as smileys or emoticons as paralinguistic footnotes to their writing. It leads to another important research question about the situations of English writing in CMC in South Africa: what characterises computer-mediated writing in CMC. Furthermore, will the computer-mediated writing challenge the standard English and how the computer medium broadens traditional concepts of writing?

Answering these questions will help people to gain a better understanding of writing within the context of Computer Mediated Communication.

1.4 Methodology

This study considers both theoretical and empirical aspects of writing in CMC:

1.4.1 Literature review

The relevant historical, theoretical and critical literature are considered into coherent themes. The major trends in the literature, as well as the relative research fields are ascertained.

1.4.2 Case study analysis

A case study analysis of writing in both synchronous and asynchronous forms of CMC in South Africa is employed. The following sources were used:

- Messages from South African on-line chatroom where the synchronous form of CMC is conducted;

- Postings from South African Usenet newsgroups in which the asynchronous form of CMC messages are delivered.

CHAPTER TWO:

UNDERSTANDING THE WRITING CULTURE

Many studies develop theories demonstrating the use of writing to represent language and the significance of writing for mankind: writing is not only a tool for communication (Ong 1982:26; Coulmas 1992:10-14; Robinson 1995:7), but also profoundly affects the way people think (Ong 1982:78; Harris 1986:24; Gaur 1987:14; Baron 2001:10). Nowadays most studies about writing are shaped by technology. With the personal computer revolution in the early 1980s, academia began to grasping for an appropriate analogy through which to capture the changes most people believe computers would engender in human communication—perhaps inspired by McLuhan's pronouncements about mass media was leading people from a literacy-based society into a more speech-like form.

This chapter briefly highlights the impacts of different mediums on writing—from the invention of the alphabet to the usage of computer in the present age of Computer Mediated Communication. This chapter examines how writing is related to its alter ego—speech.

2.1 The Emergence of the Written Culture

McMurdo (1995:140-146) takes a retrospective view of characteristic communication features on the oral, written and print cultures respectively, and argues that these cultures are not to be thought of as solely chronological, mutually exclusive and historical periods since oral cultures for instance still exist in vast parts of the world. All developing societies have passed through

the phase when the oral culture was the only mode of communication. In the preliterate society, existing ways of doing things were not questioned and since there was no written records to refer to, myth, history and social reality merged into one. In this oral society, knowledge was stored in the corporate memory of its citizens. It was when the need to store this knowledge elsewhere was recognised that the written culture emerged (McMurdo 1995:143).

"Writing is made possible by the existence of a script" (Baron 2001:5). Over the past five millennia, "human communities have devised ingenious schemes for making linguistic communication durable" (Baron 2001:2). There have been four scripts that "had monumental impact on historical development": "cuneiform, hieroglyphics, Chinese, and the alphabet" (Shlain 1998:70). All scripts that are all full writing—that is, a "system of graphic symbols that can be used to convey any and all thought", operating on one basic principle (Robinson 1995:14).

However, writing is a tool for communication (Ong 1982:26; Coulmas 1992:10-14; Robinson 1995:7). To be able to determine the development and complexity of writing as a communication technology, it may be fruitful to put the writing into a historical perspective and examine the impacts of different mediums on writing.

2.2 The Impacts of Different Mediums on Writing

McLuhan and Fiore (1967:8) propose that a civilisation's principle "means" of communication molds it more than the "content" of that communication. Just so, writing has always been affected by the tools used to produce it (Daiute 2000:261). McLuhan classifies speech, pictographs, ideographs, alphabets,

print, radio, film and television as distinctive information-conveying media, each with its own technology of transmission. He declares that these technologies insinuate themselves into the collective psyche of any society that uses them, and once embedded, stealthily exert a powerful influence on cultural perceptions (McLuhan & Fiore 1967:26). Besides McLuhan, a bevy of scholars have claimed transformative virtues for written language or for the technologies by which written language is carried. This cognition has been posited for everything from the alphabet to the printing process, styles of reading, mass media, word processor and the cyberspace.

2.2.1 The alphabet effect

"Someone…invented a greatly simplified method of written communication that shifted the perceptual mode by which people understood their reality, deflected the thrust of gender politics, and changed the course of history" (Shlain 1998:65). This new invention which Shlain refers to is the alphabet.

Logan (1986:24) explores the impacts of the alphabet as follows:

> A medium of communication is not merely a passive conduit for the transmission of information but rather than an active force in creating new social patterns and new perceptual realities. A person who is literate has a different world view than one who receives information exclusively through oral communication. The alphabet, independent of the spoken languages it transcribes or the information it makes available, has its own intrinsic impacts.

Alphabetic writing may nowadays for all practical purposes be defined as "any system of recording which uses this particular inventory of letters, or some historically related variant of it, of which there are many" (Harris 1986:30). "Instead of a complex syllabary of over six hundred cuneiform characters, or

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six thousand hieroglyphs coupled with rules of grammar that would daunt the most eager student, an alphabet contained a mere twenty-odd letters" (Shlain 1998:65). It may explain that "what made the alphabet so revolutionary was the ease with which people could learn to use it", and in the same way, "[t]he alphabet ended the hegemony of the literate elite" (Shlain 1998:65).

A crucial collateral benefit springing from the alphabet is that "it allow[s] people to systematise knowledge" because the alphabet's simplicity makes it possible to store and retrieve data with ease, which in turn lays the foundation for the alphabet's most portentous gift to those who learned it. In addition, the abstract alphabet "encourage[s] abstract thinking" (Shlain 1998:66).

Robinson (1995:157) comments that "what extinguishes or preserves the use of a script is the power, prestige and vitality of the cultures which use the script" and thus the Maya use the Roman script, and Japanese use the Chinese script. The form of alphabet most widely used at the present day is the English alphabet (Harris 1986:30). The English language has essentially been written using the Roman alphabet, and the historical development of English has given it "a few addition and subsequent subtractions along the way" (Baron 2001:14). The dominance of the Western culture and the English language worldwide has contributed to the fact that "there have been calls in all countries to 'romanise' their scripts" (Robinson 1995:157).

Besides McLuhan and Fiore (1967:44), Logon (1986:24) and others who have explored many of the effects that alphabetic literacy has had upon history, Gelb (1963:183-189) suggests that the emergence of alphabetic writing represented a major cultural advancement in human history because the ability to represent each sound of spoken language with a distinct symbol was more sophisticated

than using a system representing whole words with symbols (logograms) or clusters of sounds with single symbols (syllabaries). In Gelb's (1963:15) words, the alphabet is "the most developed form of writing". The invention of the alphabet "reconfigured the world" (Shlain 1998:66).

In the same vein, Olson (1994:4) later comments that,

> The representation of ideas through pictures, the representation of words through logographic signs, the invention of syllabaries are all seen as failed attempts at or as halting steps towards the invention of the alphabet, it being the most highly evolved in this direction and therefore superior.

The works of Havelock (1963:7; 1991-11-27) lay the foundations of the alphabetic theory. Havelock argues that the emergence of Greek philosophical thought could be explained by the development of the Greek alphabet. The Greek alphabet was adapted from the Phoenician script. Like other Semitic languages of the time, Phoenician was written with a consonantal alphabet, meaning that it had regular symbols for consonants but not for vowels. By re-purposing five unneeded symbols from the Phoenician script to represent Greek vowels, Greeks were able to record the entire segmental speech stream (Coulmas 1989:164-165).

However, reaction against Havelock's theory of an "alphabet mind" has been sharp and continuing. The first argument is about cognitive effect. There seems to be no evidence for claiming the alphabet is a superior representation of spoken language. No one today seriously assumes, for example, that the Chinese has less sophisticated or less abstract or less theoretical thought than their occidental alphabetic compatriots. In fact, most critiques of Havelock's work have focused on his broader claims of a cognitive "great divide" between

literate and non-literate people, not on his position regarding the alphabet (Lloyd 1990:58).

Next, there is the linguistic argument. The alphabetic principle of representing individual sounds with signs is hardly unique to the Greeks. Phoneticism has emerged independently in writing systems across the globe (Coulmas 1989:3). While Greek seems to have been the first language to attempt representing all vowels and consonants in the spoken language with individual written signs, even that attempt was not complete. The myth that alphabets represent all speech and while logographic systems only represent words is simply wrong (Unger & DeFrancis 1995:55). Every developed character-based system we know of—from Mayan glyphs to Egyptian hieroglyphs or Chinese characters—also represents some sounds, and every alphabetic system has mismatches between pronunciation and orthography. Some alphabetic systems are more closely matched with sounds than others, but "none achieves a full one-to-one correspondence" (Baron 2001:15).

While Havelock and others have argued that the act of writing transforms our cognition, more people are paying attention to the effects of the technology through which written and spoken language is conveyed. The initial phase of this discussion concerned itself with the impact of the printing revolution.

2.2.2 The printing effect

Eisenstein (1979:88-107) states that the printing press served as a profound "agent of change" in early modern Europe and people could find its influence everywhere: in the growth of a lay intelligentsia, the rise of comparative scholarship, movement towards a standard dialect, increases in literacy rates, the appearance of didactic children's books, a surge in translation and perhaps

most importantly, in the creation of a tool for religious upheaval. Although Olson (1994:37-38) later argues that Eisenstein's work is not sufficiently explanatory, it provides the basic source of data from which scholarly and popular discussions of the effects of printing continue to draw.

Almost twenty years earlier, McLuhan (1962:124) sees the coming of the printing press as but the first of two major revolutions in human thought and social organisation. Print, in McLuhan's (1967:50) phrase, is the supreme "ditto device". It eliminates the personal expressiveness of handwriting in favour of automatic uniformity. The mechanical regularity of print "confers upon each alphabetic symbol an independence and a constant visual identity which no earlier form of writing quite achieves" (Harris 1986:7).

Printing essentially magnifies the consequences of writing (McMurdo 1995:141). With the emergence of printing, the written word could reach a greater audience. In addition, the greater availability of readable information slowly but steadily causes an increase in literacy. McMurdo (1995:142-143) further indicates that linguistically printing had a standardised effect since spelling and vocabulary changed more slowly, and languages became more consistent in their usages as printing was invented. In addition, printing also had a preserving effect on ideas. This point is more evident on the printing's effect of dissociating age from wisdom—a feature we often ascribe to the information technology of today. The young could acquire the same knowledge as the previously so respected old had gained in a lifetime by diligent study. In many respect, the age of unquestioned authority is over (McMurdo 1995:145).

Besides printing, is there an alternative way to think about the connection between writing and thought?

2.2.3 The reading effect

Writing, especially alphabetic writing is a technology which does not degrade human life, but rather "enhances" it (Ong 1982:83). Since "writing restructures consciousness" (Ong 1982:78), to understand the effects of writing on thought, is to consider not just the texts themselves, but the way in which texts are read (Olson 1994:91-113).

Characterising the modern notion of reading, Riesman (1960:112-114) suggests that

> If oral communication keeps people together, print is the isolating medium par excellence…The book, like the door, is an encouragement to isolation: the reader wants to be alone, away from the noise of others…Thus the book helps liberate the reader from his group and its emotions, and allows the contemplation of alternative responses and the trying on of new emotions.

Reading generates consciousness which "permits their distinction from the ideas that [written] words express" (Olson 1994:242). Writing, therefore, "gives rise to the idea of an idea and the mind becomes the storehouse of those ideas. Thus it is at least plausible that the discovery of the mind was part of the legacy of writing" (Olson 1994:242).

However, Olson's model (1994) does not deal with communication technologies after the printing press. What about the electronic media in human communication?

2.2.4 The media effect

McLuhan (1964:11-12), one of the first thinkers to analyse the impact of media

technology on society, refers to the creation of a "global village" as follows:

> After three thousand years of explosion,…the Western world is imploding. Today, after more than a century of electronic technology, we have extended our central nervous system itself in a global embrace, abolishing both time and space as far as our planet is concerned.…The global is no more than a village.

While the print revolution turned people into typographic man, the more recent media revolution transformed people into graphic man (McLuhan 1964:308). The advent of the electronic media in the middle of the twentieth century marked a new era in human communication (McMurdo 1995:141). This media revolution "ushered in by the telegraph and the telephone, and followed by radio and television" (Baron 2001:16-17). All these media significantly contributed to changes in social, economic, cultural and political life. Even viewed in a historical context, media technology had more social effect on different societies and cultures than the media content (McLuhan 1964:8-9).

WWII was a firestorm for modern civilisation and this conflict also marked the beginning of another massive shift in global consciousness. The invention of the television was chiefly responsible for this change (Shlain 1998:407). Previously, "alphabetic print had explored Western culture into millions of hard-edged shards of individualistic shrapnel. Both reading and writing, in most cases, [were] solitary endeavours. Television abruptly reversed the process" (Shlain 1998:408). Television's popularity greatly increases the power of images. It not only pulls together individual families but also enmeshes the entire human community in front of the television screens. As a result, the "iconic information has superseded alphabetic information as the single most

significant cultural influence" (Shlain 1998:409).

From a technologically-determinist view of communication, McLuhan (1962:199-206; 1964:170-178) also argues that printing technology contributed to nationalism, industrialism and universal literacy. Though at the time he was writing, electronic media, especially television were confined to few Northern nations, "McLuhan foresaw the impact of international television, suggesting that new communication and information technologies would help create what he called a 'global village'" (Thussu 2000:73).

"The rapid changes in international communications", spurred on by the expansion of direct satellite broadcasting in the 1980s and the Internet in the 1990s, "seem to made the world shrink, generating renewed interest in McLuhan's concept of global village" (Thussu 2000:74). The global village makes for a better world than the one inhabited by lone individuals reading in their studies.

Even though critics comment that McLuhan "proclaimed rather than explained" (Olson 1994:37) and he always has "flashes of insight" and is "lack of analysis" (Baron 2001:17), people cannot deny McLuhan's special contributions to the modern media studies.

Although McLuhan had much to say about radio and television, he did not witness the computer revolution and in particular, the emergence of cyberspace. What do modern communication savants have to say about the influence of new communication technology on how people think and interact?

2.2.5 The word processor effect

"Writing has always been affected by the tools used to produce it" (Daiute 2000:253). Nowadays electronic communication technologies have had a major impact on "the ways we write, the genres we create, the authorial identities we assume, the forms our finished products take, and the ways we engage with readers" (Hyland 2002:73). With the advent of personal computers in the early 1980s, computer programmes could carry out functions of writing when they are programmed with processes that imitate human writer's problem solving. In the meanwhile, computer can also be programmed to support writer's activities.

Perhaps the most immediately obvious feature of computer-based writing is the way that electronic text facilitates composing, dramatically changing people's writing habits. Commonplace word processor could "automatically check spelling and grammar as a writer composes are designed to mimic human cognition (Daiute 2000:253). Just so, computers made it possible to relegate writing machines to the software, leaving the writers free to "concentrate on more 'important' things, especially the ideas being expressed" (Baron 2001:160).

The computer word-processors "change not just how but *what* we write" (Stoll 2005:190). Word processor enables writers to produce successive drafts without needing to rewrite or retype the entire text next time. The dramatic increase in the length of texts written on word processors "underscores the need to consider the writing instrument as part of the writing process" (Daiute 2000:254).

Word processors may be contributing to the growing tendency for merging the boundaries between speech and writing. Even in the early days of word

processing, a number of studies have suggested that on-line composition linguistically resembles speech (Baron 2001:214). The computer screen fills the role of listener. The presence of that ersatz interlocutor encourages a casual and rambling style that is more characteristic of spoken language than of traditional writing. Just as writing is a symbol system that transforms speech, writing with symbolic tools such as the word processors engages people in another set of cultural symbols.

Equally significantly for writing practices is "the way electronic media allow text to be easily integrated with other modes of meaning, mixing the visual and the verbal in new ways" (Hyland 2002:74). Word-processing features allow us not only to cut and paste, delete and copy, check spelling and grammar, but also to import images and change every aspect of formatting mean that our texts are longer, prettier and more heavily revised. Just so, "the electronic interaction of the visual and the written embodies a radical change to the ways writers create meanings which cannot be fully described with current linguistic theories" (Hyland 2002:74).

The linguistic upshot of word processors at least as practiced by a significant number of users is that it easily produces a significant amount of speech-like language that is unedited. What happens when the fruits of such labours are distributed to large number of people? Enter the world of cyberspace.

2.2.6 The cyberspace effect

While technological innovations present challenges to writers, they also open up new subjectivities, genres and communities to them. A major aspect of electronic interaction is the absence of physical co-presence. This is communication in the realm of cyberspace, "real in its effects and illusory in its

existence", and this "has an impact on the ways in which writers see themselves and interact with others" (Hyland 2002:76).

Birkerts (1994:128) warns that technology is the source of a profound shift in the way people communicate, "moving…away from the patterns and habits of the printed page and towards a new world distinguished by its reliance on electronic communications". But how does language conveyed by computers across a network affect what people express, think and know? Although the primary way of interacting with computers is still written, "the style of written language we often use [in cyberspace] has at least as much in common with speech as it does with more traditional formal writing" (Baron 2001:18). Some have argued we are entering a period of what Ong (1982:136) earlier called "secondary orality", a literate culture becoming once again more oral.

The emergence of cyberspace presages more than just a new medium for swapping messages. Once again, McLuhan and Powers (1989) predict the electronic media were turning the world into one vast electronic global village. The cyberspace "helps complete McLuhan's metaphor, to the point of making it a reality" (Levinson 2001:7). The online villagers can engage in dialogue, seek out rather than merely receive news stories, and in general exchange information across the global. The world of cyberspace is a "computer-generated extension of the human mind into another dimension" and the computer has "carried human communication across a threshold as significant as writing" (Shlain 1998:418).

If contemporary media experts are right, global networking will redefine how we work, how we socialise, and how we learn. Given the speed with which computer-based communication technology is now evolving, we are just beginning to discover what effects cyberspace is having on us as writers and

readers.

2.3 Writing and Speech

McLuhan (1964:23-24) remarks that "the 'content' of any medium is always another medium". The content of writing is speech, just as the written word is the content of print, and print is the content of telegraph. Just so, writing is "intimately and inextricably bound to speech and…full writing cannot be divorced from speech" (Robinson 1995:17).

The fact is that "writing and speech…have for centuries been locked in a relationship which is essentially symbiotic" and this relationship is so close that it is difficult to "prise the two apart" (Harris 1986:46). Even in the context of CMC, the evolution of computer-mediated writing illustrates "a real tension which exists between the nature of the medium and the aims and expectations of its users…The heart of the matter seems to be its relationship to spoken and written language" (Crystal 2001:24).

Since writing itself does not occur in a vacuum, any analysis of writing should be related to its alter ego—speech, without exception to Computer Mediated Communication.

2.3.1 How is writing different from speech?
Writing and speech differentiate in fundamental ways. Those differences are generally attributed to the distinct functions that writing and speech have evolved to perform (Halliday 1989:8-17), or to the degree of detachment and reflection that each permits (Tannen 1982:1-21). Crystal's "The Cambridge

Encyclopedia of the English Language" (1995) is one of those which
systematically recommend the chief differences between writing and speech.
Table 1 is a summary of the chief differences, derived from this source.

Table 1: Differences between speech and writing

From "The Cambridge Encyclopedia of the English Language" (Crystal 1995:291)

SPEECH	WRITING
1. Speech is time-bound, dynamic and transient. It is part of an interaction in which both participants are usually present, and the speaker has a particular addressee in mind.	Writing is space-bound, static and permanent. It is the result of a situation in which the writer is usually distant from the reader, and often does not know who the reader is going to be.
2. There is no time-lag between production and reception, unless one is deliberately introduced by the recipient. The spontaneity and speed of most speech exchanges make it difficult to engage in complex advance planning. Intonation and pause divide long utterances into manageable chunks, but sentences boundaries are often unclear.	There is always a time-lag between production and reception. Writing allows repeated reading and close analysis, and promotes the development of careful organisation and compact expression, with often intricate sentence structure. Units of discourse are usually easy to identify through punctuation and layout.
3. Because participants are typically in face-to-face interaction, they can rely on such extralinguistic cues as facial expression and gesture to aid meaning. The lexicon of speech is often characteristically vague, using words which refer directly to the situation.	Lack of visual contact means that participants cannot rely on context to make their meaning clear; nor is there any immediate feedback. Most writing therefore avoids the use of deictic expressions, which are likely to be ambiguous.
4. Many words and constructions are characteristic of speech, such as contracted	Some words and constructions are characteristic of writing, such as multiple

form (*isn't*, *he's*). Lengthy co-ordinate sentences are normal, and are often of considerable complexity. There is nonsense vocabulary, obscenity and slang, some of which does not appear in writing, or occurs only as graphic euphemism.	instances of subordination in the same sentence, elaborately balanced syntactic patterns, and the long sentences found in some legal documents. Certain items of vocabulary are never spoken, such as the longer names of chemical compounds.
5. Speech is very suited to social or "phatic" functions, such as passing the time of day, or any situation where casual and unplanned discourse in desirable. It is also good at expressing social relationships, and personal opinions and attitudes, due to the vast range of nuances which can be expressed by the prosody and accompanying non-verbal features.	Writing is very suited to the recording of facts and the communication of ideas, and to tasks of memory and learning. Written records are easier to keep and scan, tables demonstrate relationships between things, notes and lists provide mnemonics, and text can be read at speeds which suit a person's ability to learn.
6. There is an opportunity to rethink an utterance while the other person is listening. However, errors, once spoken, can not be withdrawn; the speaker must live with the consequences. Interruptions and overlapping speech are normal.	Errors and other perceived inadequacies in our writing can be eliminated in later drafts without the reader ever knowing they were there. Interruptions, if they have occurred while writing, are also invisible in the final product.
7. Unique features of speech include most of the prosody. The many nuances of intonation, as well as contrasts of loudness, tempo, rhythm, pause, and other tones of voice cannot be written down with much efficiency.	Unique features of writing include pages, lines, capitalisation, spatial organisation, and several aspects of punctuation. Only a very few graphic conventions relate to prosody, such as question marks and italics. Several written genres, such as timetables, graphs, only can be assimilated visually.

There are difficulties in distinguishing writing and speech in terms of broad functional categories such as abstract/concrete, formal/informal, characterised by turn-taking/by monologue, for language in real situations could be a cross between crude divisions.

Another distinction often made by critics is that "writing is primarily interactional and speech transactional", that is, "one involves a relatively greater focus on ideational content and less personal involvement than the other" (Hyland 2002:52).

Biber (1988:36-37) argues the relationship between writing and speech:

> There is no linguistic or situational characterisation of speech and writing that is true of all spoken and written genres. On the one hand, some spoken and written genres are very similar to one another. On the other hand, some spoken genres are quite different from one another, as are some written genres. The relations among these genres are systematic, but must be specified in a multi-dimensional space.

Even though Biber's identification of linguistic features is based on traditional grammatical labels which have more to do with formal structural rules than with a principled description of how language is used to express meanings, his analysis "clearly underlines the fact that text structure is multifaceted and that no single dimension of comparison can separate speech and writing" (Hyland 2002:51).

2.3.2 The Relationship between Writing and Speech

However, many scholars find that the very relationship between writing and

speech has fundamentally changed through the centuries.

In earlier ages, a long line of influential thinkers, from Plato and Aristotle onwards, had long maintained that writing was simply a representation or record of speech. Aristotle (in Harris 1986:26) says that "words spoken are symbols or signs of affections or impressions of the soul; written words are the signs of words spoken". The Aristotelian view was echoed in the eighteenth century by Rousseau and "by the twentieth has become no longer one possible view but an 'accepted fact'" (Harris 1986:26). This "accepted fact" was also endorsed by a number of major theorists of modern linguistics.

Throughout the Middle Ages, written English predominantly served transcription functions, enabling readers to represent spoken words or to produce durable records of events and ideas (Baron 2001:29-30). By the seventeenth century, writing was developing its own autonomous identity, a transformation that matured in the eighteenth, nineteenth and first half of the twentieth centuries.

The eighteenth century saw a profusion of printed works, not only novels, but newspapers, magazines and serials and pamphlets of all sorts. At the same time, writing developed a set of "written" functions with the emergence of these printed works. McIntosh (1998:31) finds that the syntax of the prose samples in the early eighteenth-century was very "speech-like", containing oral traits as redundancies, proverbial expressions and interruptions. McIntosh (1998:35) also notices that late eighteenth-century texts of the prose samples were more "written in style". They were more carefully planned, using more parallel syntax and antithesis, making common use of noun clauses and so on. McIntosh

(1998:35) summarises the reason of this profound stylistic change within the span of a single century and concludes that the print culture which "[took] pains to make its written genres more obviously written and less like speech".

In the former part of the twentieth century, a pillar of the American linguistics from the 1920s to 1960s and the best-known supporter of Aristotelian position—Bloomfield, introduced a behavioural approach to linguistics. In his text, Bloomfield (1933:21) argues that writing is not even a form of language; it is only a speech surrogate and "merely a way of recording language by means of visible marks". Even though Bloomfield's characterisation of written language was probably accurate for the disciplinary universe of his time, the definitive pronouncements of Bloomfield had limited the investigations into the history, functions, and social and cognitive implication of writing for a long period of time in the twentieth century (Baron 1981:37-40).

Since WWII, with the popularity of personal computer, a new twist was added, as writing increasingly came to represent informal speech. Gradually people learn to write as they speak rather than preparing to speak as they write. As a result, people have generally blurred older assumptions that speech and writing are two distinctive forms of communication.

At the same time, a growing literature suggests that those clear-cut dichotomy of the relationship between writing and speech has been overstated as a result of drawing on rather idealised situations of those two. In fact, when people examine more varied genres and communicative situations, people find actual instances of writing to "contain a mix of 'oral' and 'written' features and that the two modes overlap and coexist in very complex patterns" (Hyland 2002:50).

This argument is amply demonstrated in the recent "Longman Grammar of

Spoken and Written English" (Biber et al 1999) which shows that a range of features vary and overlap across the two channels. Features which Biber (1999:988-1036) interprets as conveying explicit, elaborated reference, such as relative clauses, mainly occur in written texts, but are also prominent is spoken genres such as interviews and public speeches.

In the same vein, Baron (2001:7) also contends that contemporary analyses of written language have shown that writing is less or more than "a mirror of speech". Less, because writing leaves out pronunciation, intonation, and facial cues of speech; more, because writing often has its own vocabulary, syntax, and usage conventions (Baron 2001:95-123). Importantly, there is no denying that writing captures much of what we say or could say in face-to-face spoken exchange. Technological and social changes further complicate this statement, "with new discourse forms such as internet chat and email blurring old [and clear-cut] divisions [between writing and speech]" (Hyland 2002:52).

"The history of writing in the English-speaking worlds reveals a balancing act between competing recording functions of the written word" (Baron 2001:7). While written English has always had a role in creating durable records, the "oral" side of writing has been far more important than we tend to realise. Through most of the language's history, an essential function of writing has been to aid in subsequent re-presentation of spoken words. Overwhelmingly, these spoken words have been formal in character—drama, poetry, sermons, public speeches (Baron 2001:123-130).

CHAPTER THREE: WRITING IN THE AGE OF CMC

"The primary act involved in CMC is that of writing" (Jones 1995:12). However, computer writing practices must be considered in the social contexts where they occur. Thus it is important to understand how computer technology functions among many tools of written communication and how context influences writing. At the same time, based on the nature of the computer medium, computer-mediated writing has its own characteristics. This chapter addresses these issues by reviewing theoretical perspectives that help make sense of how computer relates to writing in the age of CMC, and examine the relationship between writing and speech within the context of CMC.

3.1 Theories of Writing

The prevailing theories of writing in the past two decades have generated diverse interpretations and evaluations towards the writing process itself and the computer technology. The major theoretical perspectives related to writing are cognitively focused theories and sociocultural theories. The former emphasizes composing processes such as planning, applying most readily to applications of computer processing, including word-processors and spelling checkers. In contrast, the latter emphasizes the contexts and purposes of writing, which have been applied mostly to interpret people's uses of networking capacities, such as chatrooms and E-mail (Daiute 1985:2-5).

3.1.1 Writing as a cognitive process

Cognitive science researches provide the basis for two approaches to describing the composing process—"cognitive strategy theory" and "writing process theory" (Daiute 2000:255). Both approaches identify a universal set of composing process and emphasize the discovery in prewriting phases and reflection in revising phases. According to Daiute (2000:255), the major differences between these two theories are the former characterises writing as primarily problem solving, while the latter characterises writing as primarily creative discovery.

At the same time, these two theories have led to different applications of computers as writing tools. Conceptualising writing as problem solving has led to the development of interactive writing programmes. Computer programmes could prompt writers to think about their goals and methods of achieving goals and help writers to become more strategic about the writing process (Cochran-Smith 1991:107-155). On the contrary, theory and practice emphasizing creative aspects of writing have tended to minimise the role of technology, except as a publishing tool.

3.1.2 Writing as sociocultural context

"All interactions, including CMC, is simultaneously situated in multiple external contexts" (Baym 1998:40). Just so, computer writing practices must be considered in the social contexts where they occur, such as CMC or classrooms, since contexts can define the meanings and forms of written language (Freire & Macedo 1987:18-22).

In fact, writing itself is a sociocultural phenomenon that reflects a community's values. It is "a culturally dependent variable" instead of a static form of

representation (Baron 2001:19). According to Murray (2000:44), writing is "not a set of skills, whose absence or presence in individuals or communities automatically leads to particular outcomes". In other words, writing is not a context-free, value-neutral set of skills but "a set of social or cultural practices" and "its participants as a community of practice" (Reder 1994:33).

Vygotsky (1978:3) also contends that all learning is inherently social in nature. Vygotsky's theory implies that writing arises out of and retains the functions of social uses of language because it involves a lot more than inscribing words. Writing is a social practice, interwoven into larger social practices, that is developed through apprenticeship and shaped by its users to conform with social needs. It is also a linguistic process that relies not only on knowledge of vocabulary and grammar, but also on knowledge of conventions of spoken and written language. Besides, writing is a cognitive process that involves creating links between our knowledge and textual forms and ongoing critical assessment of the quality of those links. In a word, writing is seen as a dynamic set of social, linguistic and cognitive processes that are culturally motivated (Kern 2000:5-6).

Writing is now situated within computer networks, in Computer Mediated Communication. According to sociocultural theories of writing, learning to write means being socialised into a set of values, practices and symbol systems; texts are cultural artifices and the activities involved in creating texts are group-specific rather than universal practices (Dyson 1993:79-82; Heath 1999:5-9). With their focus on context and text, sociocultural theories emphasize communication and thus involve linking writing closely with speech, reading and practical activities. Although some researchers focus mostly on literacy practices, sociocultural theory has generated the notion of "genres" as

text forms that carry cultural norms (Cope & Kalantzis 1993:14).

In addition, writing in the context of CMC where audiences are part of dynamic textual interactions, might help writers generate salient topics and learn strategies for getting readers' attention. Such contexts also raise issues of interpersonal and intergroup relations around specific texts. Just so, sociocultural explanations apply most readily to CMC.

3.2 Writing in Computer Mediated Communication

Scholars and educators have conceptualised writing in relation to the increasingly widespread use of "communication technologies"—a range of electronic technologies that provide tools for creating written texts (Selfe & Selfe 1994:480-504). Communication technologies include networking capabilities on the Internet, such as chatrooms, electronic mails, electronic bulletin boards, online information database searchers, Usenet newsgroups and so on. These technologies are typically referred to as "cyberspace" which is generally used to refer to the space one is in when conducting CMC.

The cyberspace is undeniably a product of literate, technological society. The features of cyberspace make it collaborative and conversational. Daiute (2000:252) comments that the on-line context can enhance motivation for writing. For example, writers are inspired to write actively in cyberspace because their audiences can respond them immediately (Cummins & Sayers 1995:11-12). Written interactions in cyberspace occur among any number of people who enter a chatroom, post a message, or send an E-mail when they log in to the Internet. Based on the nature of the computer medium, writing in

CMC often involves playing with "knowledge", "identity" and "language itself", which can serve both developmental and social purposes (Daiute 2000:262).

3.2.1 Knowledge

In CMC, communication interactions occur through writing—"sometimes in codes and often in written dialogue and extended prose" (Daiute 2000:257). However, writing, together with reading, "is a central aspect of literacy, a learnt ability which resides in people's head and which facilitates logical thinking and active participation in the roles of modern society" (Hyland 2002:53). In other words, literacy is a prerequisite to Computer Mediated Communication.

"Whatever else Internet culture may be, it is still largely a text-based affair" (Wilbur 1996:6). Tannen (1982:2-4) argues that because writing lacks the paralinguistic and kinetic channels available to face-to-face interactants, writers are forced to encode meaning exclusively through lexis and syntax, increasing the detachment of writing and focusing readers on content. Writing, however, involves numerous features which are as rich as gesture and intonation in conveying meanings non-verbally. Significant meanings may be imparted to texts, for example, "scare quotes", <u>underlining</u>, **boldface**, exclamation marks!!!, and smiley face :-) can signal writers' attitudes to their propositions" (Hyland 2002:52).

Writing in cyberspace "seems somewhere between speaking and writing", which may explain why many people who do not like to write in other contexts spend their free time writing in cyberspace (Daiute 2000:262). This speech-like quality makes a range of communications in cyberspace appealing, expansive and problematic. Ferris (1997) also remarks that in its functions and developing culture, the cyberspace is considered by many to be an oral medium. It is important to note that the words "oral" and "literate" here are not

used in their generally accepted sense but in their specialised meanings to express the cognitive and cultural characteristics of pre-literate or oral societies as opposed to literate societies. In this sense, characteristics of orality develop from the evanescence of sound and include, among others, use of formulae and mnemonic devices, closeness to the human life-world, and a strong sense of community. Similarly, characteristics of literacy develop from the permanence of print and include, among other, ownership of print, and the development of analytical and abstract thought (Ong 1982:118-119).

According to Ferris (1997), CMC and all writing in cyberspace includes many "literate characteristics" because cyberspace is a product of technology, is print-based and depends on grounding in abstract, analytical and literate modes of thought. But writing in cyberspace also includes many "oral characteristics" because the new electronic technologies introduce the qualities of temporal immediacy, phatic communion, the use of formulaic devices, presence of extra textual content, and development of community. Cyberspace does present a new "electronic orality", for all that it is print based. Thus characteristics of both orality and literacy are evident online leading many researchers to consider CMC what Ong (1982:136) calls "secondary orality" which is "essentially a more deliberate and self-conscious orality, based permanently on the use of writing and print".

Writers in both real life and cyberspace should compose with clear and specific purposes in mind, but there is one essential difference in cyberspace that everything written is written for publication (Ferris 1997). Thus, as the cyberspace as well as other communication technologies provide supports for writing, the nature of these technologies makes it increasingly obvious that writing skills involves reflection and analysis of social milieu (Daiute 2000:264).

3.2.2 Identity

Writer identity has long been a central issue in literary studies, but has only recently begun to influence writing research more generally, especially in CMC. According to Hyland (2002:65), identity refers to "the various 'selves' writers employ in different contexts, the processes of their affiliation to particular communities, and their responses to the power relations institutionally inscribed in them". It can carry a myriad of denotational implications, which may be based on such elements as gender, culture or simple name-to-face connections.

When considering why people exercise their language abilities in CMC, Dennett (in Matthews 2000:80) suggests "the construction and presentation of self" is one answer, since all dialogues in CMC are freely created by the participants. Turkle (1995:180) also asserts that "in the virtual reality, we self-fashion and self-create", meaning that individuals have the power to generate a self-image based not on a shared and tangible experience of the other, but on essentially writing into existence as two- or three-dimensional an image as is useful for the creator. In other words, "we present our identities and our online presence to an audience that must essentially accept them blindly, few or no questions asked" (Locklear 2005:240).

The contexts of CMC, such as chatrooms and E-mail, "support and complicate the development of identity and knowledge, which occur in cyberspace almost exclusively in writing" (Daiute 2000:253). Rheingold (1993:61) attempts to define how identity is constructed via CMC:

> We reduce and encode our identities as words on a screen, decode and
> unpack the identities of others. The way we use these words, the stories (true

and false) we tell about ourselves (or about the identity we want people to believe us to be) is what determines our identities in cyberspace. The aggregation of personae, interacting with each other, determines the nature of the collective culture.

However, identity online can be completely masked, empowering the user to reveal only as much or little as desired, "thanks to the medium's inherent separation from the typical discourse construction" (Locklear 2005:240). Researches have also pointed out that one can have multiple identities in CMC; moreover, one can shift identities rather easily, taking on characteristics of others' identities (MacKinnon 1995:108; Turkle 1995:178). The construction of "self" for the individual human as being a product of a web of words and deeds, leads to Dennett's assertion that "you are what you speak" (in Matthews 2000:80). This human ability to use language to construct identities is exercised naturally throughout the course of our everyday interactions and has no exception in CMC.

Another argument in the discourse of "computer networks as democratic environments" (Hiltz & Turoff 1993:3) is that the anonymity of CMC allows people to create online identities, whereas "in person, physical characteristics lead to a range of discriminations" (Daiute 2000:257). The work on online identity demonstrates a scholarly fascination with how anonymity can be used to invent alternative versions of one's self and to engage in untried forms of interaction, theoretically problematising the notion of "real self" (Stone 1995:107; Turkle 1995:177-180). Stone (1995:107) and Turkle (1995:180) both connect this to a postmodern condition, in which identities have become more fragmented and flexible.

Anonymous CMC systems give people the chance to name themselves (Myers 1987:252) because of the expressive freedoms that accompany anonymity. Myers's (1987:253-260) study also illustrates that participants highly valued their anonymity and protected it by carefully guarding the release of private information in CMC. One of Myers's (1987:259) interviewers explains, "I keep my identity secret not because I am afraid of the contact with the people I meet in BBS but because anonymity is part of the magic".

Turkle (in Daiute 2000:262), a researcher who has spent many years interacting in cyberspace, explains that adolescents and adults in multi-user simulated games write about themselves to invent, expand and hide aspects of their identities. Multi-users games are interactive fictions in which participants write themselves into stories and create discourse identities. In this way, writing in cyberspace makes this identity fiction highly salient. By providing such a setting where written identities can interact, "cyberspace may help people understand and improve themselves", however, "certain fictional identities may be harmful and unethical exaggerations" (Daiute 2000:262).

In contrast with the arguments that anonymity could minimize discrimination in CMC, observations indicate that creating identities in cyberspace can also be "dishonest" and "exploitive" (Daiute 2000:263). For example, children can engage in role-playing in cyberspace with consequences that may be dangerous. Because of the anonymity of the context, participants can craft writing to present false identities, such as using language to pretend they are younger, older or in other ways different from what they are in face-to-face interactions. Cyberspace is, for instance, "a context where adults have pretended to be children in chatrooms" (Daiute 2000:263).

Furthermore, the issue of context has gradually expanded to consider how identities are created in social context through written language in CMC. By providing a setting where written identities can interact, CMC may help people to understand and improve themselves, but certain fictional identities may be harmful, unethical exaggerations.

3.2.3 Language itself

Language is a set of characters, conventions and rules that is used for conveying information. In written language, some linguists have recognised five distinctive features (Crystal & Davy 1969:18-19; Crystal 2001:7-8).

- Graphic features: the general presentation and organisation of the written language, defined in terms of such factors as distinctive typography, page design, spacing, use of illustrations and colour.

- Orthographic features: the writing system of an individual language, defined in terms of such factors as distinctive use of the alphabet, capital letters, spelling, punctuation, and ways of expressing emphasis such as italics, boldface.

- Grammatical features: the many possibilities of syntax and morphology, defined in terms of such factors as the distinctive use of sentence structure, word order and word inflections.

- Lexical features: the vocabulary of a language, defined in terms of the set of words and idioms given distinctive use within a variety.

- Discourse features: the structural organisation of a text, defined in terms of such factors as coherence, relevance, paragraph structure, and the logical progression of ideas.

So is Computer Mediated Communication a homogenous language-using

electronic situation, likely to generate a single variety of language, defined using such variables as those listed above? Will all users of the Internet present themselves, through their messages, contributions and pages, with the same kind of graphic, orthographic, grammatical, lexical and discourse features?

Linguists raised in the structuralist traditions largely concentrated on the speech to the exclusion of writing. Conditioned by Bloomfield, they found writing to be of little theoretical interest. However, writing has now emerged as a respected domain of linguistic inquiry. Discussions have generally focused on the evolution and compassion of writing system, or analyses of the "linguistics" of writing.

When technology is introduced to language production, some transformation of writing occurs (Matthews 2000:79). The computer medium is often used to diffuse forms of expressive communication usually associated with face-to-face communication (Daiute 2000:257). Daiute (2000:258) also argues that since CMC is used for expressive purposes, the computer medium could lead to further development of new forms of expressive communication. Indeed, "countless new forms [of writing] have been created and conventionalised as part of the interactive process in computer-mediated communities" (Baym 1995:151). A few of these innovations are ways to express affect, new vocabulary, new kinds of jokes and new categories of talk all together.

Reid (1992:7-15) comments that nonverbal cues could reinforce the standards of behaviour in the external world. But in CMC, how exactly does language conveyed by computers across a network affect what people express, think

and know? Just as the "netiquette" developed into the Usenet newsgroups for standard of behaviour, a system of written cues has developed as an analog to reinforce the standards of computer-mediated communicators' behaviour in CMC.

These written cues, known as "emoticons" (MacKinnon 1995:116), including smiley faces, graphic icons made use of non-standard punctuation marks and capitalisation, are used for a variety of purposes often served by facial expressions or vocal intonations. Baym (1995:152) gives a lively description of those emoticons as follows,

> They smile (:-)), wink mischievously (;-)), or frown (:-( ). They may indicate that a comment is to be taken as humorous or sarcastic. They may indicate good spirits, disappointment, surprise, and a range of other emotions. They may also suggest general friendliness. Creative ones may be used to indicate that identity of the user, as when an "8" is substituted for the colon to show that the poster wears glasses. These "emotions" are collected in "smiley face dictionaries". Compiled by users, the dictionaries catalogue those emoticons actually in use as well as dozens of purely silly ones meant to represent things as obscure as buck-toothed vampires.

The repertoire of smiley faces is codified into folk dictionaries and circulated informally among users in CMC indicates that users are aware that their cultures have group-specific forms of expression and take active roles in the codification of those expressions.

However, sometimes the smiley faces "seem to be doing little more than expressing rapport" (Crystal 2001:38). Often, their presence seems to have purely pragmatic force—acting as a warning to the recipients that the sender is worried about the effect a sentence might have.

Sanderson (1993:25) makes this point in his dictionary when he recommends:

You might include a smiley as a reminder of the ongoing context of the conversation, to indicate that your words don't stand on their own. A smiley can point out to the other participants of the conversation that they need to understand you and your personality in order to understand what you've said.

Text-based conversations may "assume characteristics not observed in spontaneous spoken dialogue and with this process will come gains and losses" (Matthews 2000:81). It is the case in CMC because smiley faces are only one of many expressive innovations. Others are personalised signatures, using asterisks or capital letters for emphasis and explicit verbal descriptions of behaviour.

In addition, the broader context of the Internet provides some of the CMC vocabulary, including an extensive catalogue of acronyms such as IMHO for "In My Humble Opinion", BTW for "By The Way", FYI for "For Your Information" and LOL for "Laugh Out Loud" (Baym 1998:41). A typical example is that because people being funny in CMC cannot hear their audience's laughter, the amused people often describe themselves as "rolling on the floor laughing", sometimes abbreviated to ROFL.

Besides, since the Internet environment provides a terrain in which "the paths of individual participants may cross outside of the group" (Baym 1998:41), they may meet in other newsgroups, on Internet Relay Chat (IRC), through emails, and so on. Thus users from one group could adapt those communicative innovations from other CMC contexts and also create their own forms of expression (Baym 1995:118-119).

In principle, whatever the means of writing production, "language technologies are the servants of their makers" (Baron 2001:228). People craft them so people can better convey messages, express emotion, exercise power and collect thoughts.

3.3 Computer-mediated Writing and Speech

In the past we have had speech, then writing, and throughout the 20th century debated the relationship between the two. Now we are faced with a new medium—Internet which is an electronic, global and interactive medium and it could be bigger than either of its predecessors. Just so, people always have strong expectations of the Internet and the established users evidently have strong feelings about how it should be used to achieve its purposes. The evolution of computer-mediated writing illustrates "a real tension which exists between the nature of the medium and the aims and expectations of its users" (Crystal 2001:24). The writing in Computer Mediated Communication will become part of a much larger computer-mediated language, which in the digitally designed environment of the future could be the community's norm. Although writing is the predominant medium for CMC, "the question of how speech is related to writing is at the heart of the matter" (Crystal 2001:18).

Elmer-Dewitt (1994:66) has called Internet language "written speech"; Hale and Scanlon (1999:75) contend that writing in cyberspace is to "write the way people talk". Other researchers such as Davis and Brewer (1997:2) say that "electronic discourse is writing that very often reads as if it were being spoken—that is, as if the sender were writing talking".

Many of the commonly ideas people have about CMC derive from work done by Sproull and Kiesler (1991:35-142), and Hiltz and Turoff (1993:11-98). Their studies have generally concluded that

- Language in CMC is informal, comparing with the traditional writing
- Context of CMC helps develop a level of conversational playing field
- Writing in CMC encourages personal disclosure
- Conversation in CMC can become emotional

Two research studies have analysed databases collected from one-to-many dialogues in CMC such as listservs, computer conferencing and bulletin-board systems (Collot & Belmore 1996:12-14; Yates 1996:34). Both studies draw upon existing research on differences between spoken and written language; both analyses assume a continuum rather than opposition model of the relationship between speech and writing. But in which particular context is the computer-mediated writing more like writing or more like speech?

As Baron (2001:250) argues, if people look at type/token ratio or frequency of adverbial subordinate clauses, electronic text seems to approximate traditional writing. However, when people focus on contexts where message-senders appear personally involved in what they're communicating instead of being strictly informative, electronic messages more resemble speech.

Ferris (1997) also comments that when considering writing in cyberspace, the issue of cyberspace as a new medium is indeed more "oral" than "literate", or even presents a new type of orality becomes important. In fact, the presence of this issue can already be seen as writers online must learn the existing "oral" conventions in order to successfully disseminate their writing (Ferris 1997).

Ferris (1997) further explains that this process includes not just learning the specialised jargon of cyberspace, but learning other conventions such as specialised use of typography and the use of nonverbal icons such as the emoticons.

Whereas, at the moment, face-to-face communication ranks as primary, but in the future it may not be so. People may one day communicate with each other far more via computer mediation than in direct interaction. The effect on what counts as "normal" language acquisition could be similarly profound.

CHAPTER FOUR: A CASE STUDY

Background Information Based on Computer Mediated Communication

Present day "computer technology offers a wide variety of synchronous and asynchronous forms of CMC" (Gruber 2000:36). Just so, CMC allows people to engage in a multi-party conversation online, either synchronous, in real time, or asynchronous, in postponed time. They are continuous discussions on a particular topic, or organised in 'rooms' at particular Internet sites, in which CMC users interested in the topic can participate.

- In a synchronous setting, a user enters a chatroom and joins an ongoing convention in real time. Named contributions are sent to a central computer address and are inserted into a permanently refreshing screen along with the contributions from other participants. The online members of the group see their contributions appear on screen soon after they make them, and hope for a prompt response. Internet Relay Chat (IRC) is an example of one of the main systems available to users, consisting of thousands of chatrooms dealing with different topics. Although most people enter just one room at a time, there is nothing to stop them opening more than one chat window and engaging in two or more conversations simultaneously, if they have the requisite cognitive and linguistic skills.

- In an asynchronous setting, the interactions also go to a central address, but they are then stored in some format, and made available to members of the group only upon demand, so that people can catch up with the discussion, or add it, at any time—even after an appreciable period has passed. It is not important for members to see their contributions arrive, and prompt reactions are welcomed but not assumed. The "Bulletin Boards"

and the thousands of newsgroups on Usenet are both examples. Another is the mailing list, such as "Listserv", to which users subscribe, knowing that all messages sent in to the list will reach everyone on that list.

However, messages from synchronous and asynchronous computer-mediated communication have some features in common which distinguish them with other forms of spoken and written languages.

In recent years, Computer Mediated Communication has become increasingly popular in South Africa. In the public sphere, chatrooms and newsgroups, similar to those found on the Internet and on commercial online services found in the rest of the World, have emerged as the most popular public forums. Like their counterparts elsewhere, users of chatrooms and newsgroups in South Africa have altered accepted practices in writing and have added new orthographic devices, such as smileys to their writing.

There is a widely held intuition that some sort of computer-mediated writing exists—a type of writing displaying features that are unique to CMC and encountered in all the above situations, arising out of its character as a medium which is electronic, global and interactive (Crystall 2001:24). This case study examined the writing in CMC in South Africa.

4.1 Hypothesis

To answer the research questions set out in chapter one, the researcher developed the following hypothesis:

Writing in CMC differentiates the conventional writing in a variety of ways and computer-mediated communicators are creating their own language. At the same time, writing in CMC is gradually becoming a mirror of speech.

4.2 Methodology

To test the above hypothesis, the researcher gathered two groups of data from South African Computer Mediated Communication, namely synchronous chatroom data and asynchronous public newsgroup postings.

Chatroom and newsgroup data were collected not only because they deliver synchronous and asynchronous forms of CMC, but also because they are the most popular online public forums for people to communicate with each other. Collecting both types of data gives the researcher a balanced view of writing in both synchronous and asynchronous computer-mediated communication.

Comparing writing in chatroom and newsgroup data is also important in determining the effect of the synchronous environment of chatroom on writing. Does the "real-time" make writing more expressive, or does writing becomes more expressive when users have more time to compose in asynchronous newsgroup postings? How do the word-processing systems influence writing in chatroom messages and newsgroup postings?

About 50 hours of chatroom data and 100 topics of newsgroup data were collected respectively. Different criteria towards two groups were adopted because of their different characteristics, namely communication is synchronous in chatroom and asynchronous in newsgroup. A relatively large amount of data captured the diverse range of phenomena in writing.

To obtain a broader range of data, an attempt was also made to collect the data at various times of the day and on different days. Table 2 illustrates the main sources of data for this research.

Table2: Background information on data

	Source	Amount
Chatroom	www.ecr.co.za (website of East Coast Radio)	50 hours of data
Newsgroup	soc.culture.south-africa (from Google Groups)	100 topics of data

In all cases, the researcher logged on to the chatroom and newsgroup, but did not participate actively in the communication for fear of influencing the direction of the chat and discussion.

4.3 Data Coding and Analysis

As shown in Table 3, the researcher developed a coding system to analyse data from both groups quantitatively. The unit of analysis for this coding scheme was the "computer-mediated writing" (Daiute 2000:273), which in most cases consisted of one turn in chatroom discourse and sentences in newsgroup postings.

To code deviations of writing, three categories was established—lexicon, syntax and punctuation. The researcher chose to limit the coding to these three basic cases to see how the use of words, grammar and punctuation related to a defined set of writing that could examine the current situation of the writing process.

In addition, the deviations in these three cases are common in online discourse and lend themselves well to the writing process, even in situations that are constrained by word-processing capabilities.

Table 3: Coding scheme for data analysis

Unit of Analysis	Computer-mediated Writing
	Lexicon
Cases for analysis	Syntax
	Punctuation

For the purpose of this study, standard orthography, grammar and punctuation were classified as those practices of writing that are commonly considered standard in writing. Specifically,

- Lexicon deviations included those who showed attempts to lengthen words, add emphasis, and the unusual spellings of words, contractions, acronyms and the use of uncommon words.

- Syntax deviations included the deviant patterns in the unusual use of subjects, objectives, modals, articles and inappropriate terms within writing.

- Punctuation deviations included the use of non-standard punctuation marks, capitalisation, emoticons and graphic icons built out of punctuation marks.

After the data were coded and analysed according to the above coding scheme, the researcher made a specific observation on the chatroom and newsgroup data respectively.

The anonymity inherent in CMC prevented the researcher from gathering data on age and gender of the participants; instead, the researcher attempted to deduce the age and gender of participants from the style and register of their language.

4.4 Results of This Study

Results from coding of the data are described in Table 4.

Table 4: Deviations of writing in the data

	Lexicon		Syntax		Punctuation	
	N	P	N	P	N	P
Chatroom	48,702	83.6%	15,724	44.6%	11,374	65.2%
Newsgroup	20,428	34.9%	8,753	18.4%	4,708	16.4%

N: Number   P: Percentage

The results confirmed the researcher's hypothesis which was indicated earlier in this chapter. As shown in Table 4, users in both chatroom and newsgroup have developed a variety of ways to express themselves in Computer Mediated Communication by creating new expressions while drawing on slangs, popular culture and oral traditions in their writing processes. In other words, Computer Mediated Communication has generated its own unique language style.

In these two groups, it was the synchronous interactions which caused most radical linguistic innovation, affecting several basic conventions of traditional spoken and written communication.

The data in this study revealed that young people, especially teenagers, dominated chatrooms because the style of writing in chatroom was more aimless and cryptic and the language was more flexible and free.

However, the newsgroup showed a wider range of age. Newsgroup users tended to be in their twenties and thirties, most university students or other

well-educated people because the data indicated that in the case of newsgroup, the written messages contained frequent references to spellings and correct grammar, comparing with the chatroom communication. Just so, South African newsgroups reflected the formal and polite speech level found in letters with relatively few deviations. This phenomenon reflected the importance of what Aronoff (1994:67-86) called "grammatical and orthographic rules" in the writer-centred English rhetorical tradition.

Davis and Brewer (1997:28-29; 157) suggest that written language in cyberspace "may come to be seen as a register,…[an] emergent register". In this study, many deviations in computer-mediated writing followed a regular pattern, forming part of an emerging "online register". The typical features of the results from the coding system are listed as follows:

4.4.1 Lexicon

The lexicon deviations accounted for a larger percentage in both types of data. They were the most obvious, but not less significant features in this study. The researcher found that the messages in online communication tended to be extremely informal lexically. A special type of lexicon which belonged exclusively to computer-mediated writing was encountered when someone participated in online communication.

The various types of abbreviation found in the data had been one of the most remarked features in this research. Individual words could be reduced to two or three letters which reflect pronunciation. For example, people used "pls" for "please", "thx" or "tx" for "thanks", "we" for "whatever" and "pro" for "problem". Some words were like rebuses, in that the sound value of the letter or numeral acts as a syllable of a word; some were like combinations of rebus and letter

initial. For example, "B4N" is for "Bye for Now", "CYL" is for "See You Later" and "L8R" is for "Later". Acronyms were so common in the online communication.

Other abbreviated words were also found in the data, notably "g" for "grin", used to react to a message thought to be funny, or to convey teasing. The users of CMC had also developed a small system of their own in writing: bigger smiles were symbolised by "gg" or "ggg". A range of acronyms based on the letter "g" had been devised, such as "vbg" for "very big grin".

Besides the well-known acronym such as "BTW" for "by the way", "FYI" for "for your information", "ROTFL" for "rolling on the floor laughing", the context of CMC had motivated a whole new genre of abbreviated form—the acronyms were no longer restricted to words or short phrases, instead, they could be sentence-length. In addition, users in CMC created their own idiosyncratic phonetic spellings of commonly used patterns in their writing. They even drew on dialects and the language from TV comedians. Many phonetic deviations had become parts of a growing CMC-based lexicon of phonetic spellings that followed its own conventions while allowing for idiosyncratic variation. Some of the commonest ones are listed in Table 5.

Table 5: Some abbreviations used in the data

(both upper- and lower-case forms are used)

afaik: as far as I know	j4f: just for fun
bbfn: bye bye for now	np: no problem
bbl: be back later	o4u: only for you
b4: before	ptmm: please tell me more
bg: big grin	ruok: are you OK?

cm: call me	tttt: to tell the truth
cu: see you	thx: thanks
cul8r: see you later	tnx: thanks
cio: check it out	2nit: tonight
dur? : do you remember?	t2ul: talk to you later
eod: end of discussion	2g4u: too good for you
f2f: face-to-face	2l8: too late
gr8t: great	thru: through
gtg: got to go	wdys: what did you say?
icwym: I see what you mean	w4u: waiting for you

Spelling practice was distinctive in the data. Non-standard spelling was used without sanction in conventional settings, but new spelling conventions had emerged in CMC. Examples included repeated letters (*aaaaaahhhhhh*, *hiiiiiii*, *ooooooops*, *soooooo*, *Helllloooooo*) and a range of emphatic conventions:

all capitals for shouting:	I SAID NO
letter spacing for loud and clear:	w h y n o t
word emphasis by asterisks:	the *real* answer

Emotional expressions of horror, shock and the like made use of varying numbers of vowels and consonants, depending on the ferocity of the emotion: *aaaiiieee*, *yayyyyyyy*. Teenage users, in particular, had introduced several deviant spellings, such as "kool" for "cool" and "hone" for "phone", and the replacement of a lower-case "*o*" by a percentage sign, as in "c%l" for "cool".

These features were indeed capable of certain expressiveness. But to some extent, the range of meanings they signalled was small and restricted to express notions such as extra emphasis and surprise.

An interesting phenomenon revealed in the data was that even though the South African English spellings follow British English, the American spellings such as "color" and "behavior" were more common than British one in online writing. It is maybe for the reasons of economy since most American spellings being a character shorter than British ones.

However, spelling errors in computer-mediated writing would not be assumed to be an indication of lack of education (though they may be), but purely a function of typing inaccuracy.

4.4.2 Syntax

Syntactically, writing in CMC was quite casual. It could be seen from the coding system that this phenomenon was more typical in chatroom messages in which the syntactical deviations accounted for 44.6%, comparing to the newsgroup postings in which the deviations only accounted for 18.4%.

In this study, there were several signs of a marked trend towards succinctness, especially in chatroom messages: paragraph-like divisions were extremely rare; contributions tended to be single sentences or sentence-fragments, with most of the utterances being 6 words or even less; word-length was reduced through the use of abbreviations and initialisms.

The fact that messages were typically short, rapidly distributed, and coming from any number of people may be online at once resulted in a distinctive characteristic of online synchronous communication in particular: in order to communicate freely, users in CMC usually omitted subjects, objectives, modals, articles in their writing. The examples in the data illustrate this phenomenon between interlocutors:

don't know

hope you'r well

be back in a while

she's not on list

Typical sentences which showed the omission of a copular verb (a form of *be* as main verb), an auxiliary verb, non-standard concord between subject and verb, and the substitution of one case form for another are:

i fine

how it going?

what you doing Ian

who want to chat with me

me is 19

you feeling better now?

The data showed that syntax was chiefly characterised by highly colloquial constructions and non-standard usage in users' writing. Some features of spoken language were often present, such as short constructions, phrasal repetition and a looser sentence construction, particularly the use of reaction signals such as *m*, *mhm*, *uh-huh*.

4.4.3 Punctuation

This case study found the similar levels of informality in punctuation. Punctuation tended to be minimalist in most situations and completely absent in some chatroom messages and newsgroup postings. This may depend on the personalities of the CMC users: some users (especially newsgroup users) were scrupulous about maintaining as traditional punctuation; others used it when they had to, to avoid ambiguity; and some did not use it at all, either as a

consequence of typing speed or through not realising that ambiguity can be one of the consequences.

However, the punctuation is an important area, for it is "the chief means a language has for bringing writing into direct contact with…speech, as well as conveying a great deal of information about grammatical construction" (Crystal 2001:89). For Baron (2001:167), punctuation "reveals how writers view the balance between spoken and written language".

The data showed that internal sentence punctuation and final periods were usually missing, but question marks and exclamation marks tended to be present. The apostrophe is commonly absent from contracted forms; emotive punctuation was often seen in an exaggerated form. For example, emphasis and attitude could result in exaggerated or random use of punctuation, such as *^^!!!!!^^* or *$@#&*!*.

The data also revealed that there was an increased use of symbols not normally part of the traditional punctuation system, such as the # which has been called a "hash" or "crunch". Unusual combinations of punctuation marks occurred as well, such as ellipsis dots in any number, repeated hyphens, the repeated use of commas, high use of exclamation points, frequent use of trailing dots and dashes at the end of sentences, and use of parentheses to indicate conventional asides, high use of exclamation points. Typical contributions are:

whole~~~~

hey!!!!!!!

see you started???????????

really!!!!????

you've got a ^&*! cheek

tonight////////// (I just joking around)

The status of capitalisation varied greatly in this study. Since most of the Internet is not case-sensitive which thus motivates the random use of capitals or no capitals at all, there is a strong tendency to use lower-case everywhere. The "save a keystroke principle" (Crystal 2001:87) was widely found in the data, thus the whole sentences could be produced without capitals or punctuation, even for the word "*I*":

i dont know why~~~~~

you da right person

how ya doin

wanna know why

i got enuf

john are you going to cape town next week

In this study, the researcher witnessed several people were kicked out of the chatroom because they were "shouting" to others with their emotional messages wholly written in capitals. However, it did not mean people are not allowed to use capitals in their writing. Since any use of capitalisation could be a strongly marked form of communication, word in capitals add extra emphasis. Thus, people normally ignore those strongly emotional messages.

However, people usually wrote some words in capital to get attention. Some people also emphasized their messages with asterisks.

this is a VERY important point.

it is *very* funny.

Emoticons or other graphic icons built out of punctuation marks appeared in the data as well. Because CMC lacks the facial expressions, gestures and conventions of body posture and distance which are critical in expressing personal opinions and attitudes and moderating social relationships, these limitations lead to the introduction of smileys and other emoticons. They are combinations of keyboard characters designed to show an emotional facial expression. They are typed in sequence on a single line, and placed after the final punctuation make of a sentence. Almost all of them are read sideways. Table 6 illustrates the most commonly used forms, along with a few of the hundreds of ludic shapes and sequences in the data.

Table 6: Examples of smileys in the data

:-)	I am making a joke; pleasure; humour
;-)	winking
:-(	sadness; dissatisfaction
:-o	shocked; amazed
:'-(	crying
:-] :-[	sarcastic
[:-]	I am wearing a walkman
:-@	I am screaming
0:-)	I am an angel at heart
8-)	I am wearing sunglasses

The data showed that these smileys and emoticons have become common and used routinely in the computer-mediated writing. These uses of non-standard punctuation marks were also more distinct in chatroom messages than newsgroup postings. Meanwhile, these markings lent a more spoken quality to the written messages. However, although it is plain that these

markings are a potentially helpful and crude way of capturing some of the basic features of facial expression, their semantic role is limited.

Besides the deviations in lexicon, syntax and punctuation which had mentioned above, the researcher also found that terms which are used in people's everyday conversation were given a new application in CMC messages among the users who wanted their talk to have a "cool cutting-edge". Examples from the data in this case study include:

He's multitasking (it means that someone is doing two things at once)

Let's go offline for a few minutes (let's talk in private)

Are you wired? (are you ready to handle this)

Get with the programme (keep up)

I'll ping you later (get in touch to see if you're around)

E you later (said as a farewell)

4.5 Discussions

In "The Cambridge Encyclopedia of the English Language", Crystal (1995:178) states that if we are in the same room as someone we wish to communication with, "we do not write to each other when we have the opportunity to speak—apart from such exceptional cases as secretive children in class and spouses who are 'not talking'". This statement is maybe oversimplified in the case of writing in Computer Mediated Communication. In this case study, the traffic in both chatroom and newsgroup was very heavy and quite a number of people participated actively in those online conversations. The characteristics of cyberspace environment and the attractions of conversation itself made this online communication become popular and attractive.

This study also showed that writing in Computer Mediated Communication is somewhere between speech and writing, because both chatroom messages and newsgroup postings were across the boundaries between spoken and written language and were different from those traditional writings (non-electronically mediated writing). This speech-like quality of computer-mediated writing may explain why many people do not like to write on other contexts spend their free time writing in cyberspace. This speech-like quality may also answer the question what makes CMC so appealing. At the same time, this study indicated that the computer-mediated writing deviates from traditional writing not in uniform and fixed way. On the contrary, there existed many variations as there were differing individual styles and preferences in lexicon, syntax and punctuation.

In CMC, as with traditional (non-electronically mediated communication) speaking and writing, the language that individuals produce is far exceeded by the language they receive; and as the Internet is a medium almost entirely dependent on reactions to written messages, awareness of audience must hold a primary place in any discussion. The core feature of the Internet is its real or potential interactivity.

In the course of this study, the researcher also had some concerns about the new types of writing, even though writing seems to be more flexible and transformative in Computer Mediated Communication.

Among all the data, most abbreviated words or misspellings did not distract from the content of a message, but sometimes the "save a keystroke principle" (Crystal 2001:87) took longer for the researcher and other readers to decipher the messages. As a consequence the misspelled words could distract other

people's concentration by diverting attention away from the idea the writers wanted to express.

The same anxiety was expressed over punctuation deviations. Like Angell and Heslop (1994:99) comment that "Underuse of punctuation … can impede communications". Some punctuated messages in the data gave the relatively short sentence more unnecessary information and posed a few problems of ambiguity.

However, there is no indication of computer-mediated writing would replace or threaten the already existing varieties in people's everyday writing or standard English. On the contrary, this arrival of new, informal, even bizarre forms of writing may extend the range of people's sensitivity to a big contrasts, just like what Carroll (in Cumming 1995:7) argues that "E-mail and computer conferencing is teaching an entire generation about the flexibility and utility of prose".

CHAPTER FIVE: CONCLUSION

The main aims and objectives of this research were to identify and evaluate the shifts in form and function of English writing in Computer Mediate Communication. It is important to fully understand historical and theoretical aspects of writing based on theories by McLuhan, Shlain, Baron and so on. These theories highlight the impacts of different mediums on writing, as well as the dialectical relationship between writing and its alter ego—speech from a critical perspective.

Another aim of the research was to find out about the CMC environment and its effect on writing, and to determine where writing becomes more expressive through Computer Mediated Communication. The critical reading of texts assists the researcher in understanding how computer technology functions among many tools of written communication and the changes in the techniques and reasons for writing English, as well as change in how writing is related to speech in the present age of CMC.

The case study conducted in South African Computer Mediated Communication has proved that CMC has generated its own unique language style. Similarly, the context of CMC also supports and complicates the development of writing in cyberspace. This case study has also proved that the situations of chatroom and newsgroup, though expressed through the medium of writing, display several of the core properties of speech. Thus, writing mirrors informal speech in CMC and has lots of speech-like quality. It could lead to the conclusion that CMC is a more advantageous context for the development of writing skills.

5.1 Recommendations for Further Research

Computer Mediated Communication is a medium for global electronic data transmission; it is also a medium for multi-linguistic communication. Not only does it offer a home to all writing styles within a language; it offers a home for languages.

This study cannot say anything systematic about what is happening to languages other than English. This research study, as illustrated in earlier chapters, illustrates that changes in English writing in Computer Mediated Communication is of remarkable diversity and creativity. However, other studies have suggested that other languages are evolving in the computer-mediated setting in analogous ways (Werry 1996:47-63; Berners-Lee 1999:2-58).

For further study, researchers could choose to examine the situations of writing in other languages in Computer Mediated Communication, from lexical, syntactical and punctuation aspects of writing. Since languages have different writing systems and keyboard inputting techniques, the methods of writing in different languages may be affected by the orthographic systems and technical capabilities of word-processing. Examining writing in various languages may help people gain a greater understanding of what is universal and what is language- and culture-specific about writing in Computer Mediated Communication.

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