

Computers:  
nonverbal  
communications  
13704



**ASSIGN  
BUSTER**

## Computers: Nonverbal Communications

### CHAPTER 1:

#### Rationale and Literature Review

Magnafix says, “ Have you figured out the secret entrance to

Kahn Draxen’s castle?”

Newtrik sighs deeply.

Newtrik says, “ I think so, but I haven’t found the stone key yet!”

Magnafix grins mischievously.

Magnafix gives a stone key to Newtrik.

Newtrik smiles happily.

Newtrik shakes hands with Magnafix.

Newtrik says, “ Thanks!”

Magnafix grins broadly and says, “ No problem...”

Newtrik leaves west.

#### Introduction

#### Purpose

The purpose of this thesis is to investigate the communicative phenomena to be

found in those environments known as Internet MUDs, or Multi-User Dimensions.

These text-based virtual realities are presently available to students and faculty at most learning institutions, as well as anyone with a computer and a

modem. Though the term " virtual reality" has become connected for many with

visions of fancy headgear and million dollar gloves, MUDs require no such hardware. They are, however, a form of virtual reality, " because they construct

enduring places, objects, and user identities. These objects have characteristics that define and constrain how users can interact with them,"

(Holmes & Dishman, 1994, p. 6). Having been created in their most rudimentary

form nearly two decades ago, the technology that supports MUD interaction is

well developed and has spawned a new variety of communicative environment, one

that thousands if not millions of users have found fiercely compelling.

Since MUDs are generally restricted to text-based interaction (some support ANSI

codes, and the graphical MUDs are gaining popularity), one might expect that the

interactions therein are characterized by a lack of regulating feedback,

dramaturgical weakness, few status cues, and social anonymity, as Kiesler and

her colleagues have suggested (Kiesler, Siegal, & McGuire, 1984). While these

characteristics may be readily attributable to the majority of interactions

within experiments on computer conferencing and electronic mail, such is not the

case for MUDs, as each (there are hundreds) is a rich culture unto itself, as

will be shown. This thesis is meant to explore the modalities by which MUD users

avoid the drawbacks mentioned above, specifically, how nonverbal communication

takes place in a virtual world composed solely of words.

Background

History of network computing

<https://assignbuster.com/computers-nonverbal-communications-13704/>

The first computer network was created in the late 1960s in an effort by the Department of Defense to link multiple command sites to one another, thus ensuring that central command could be carried on remotely, if one or several

were disabled or destroyed. Once the hardware was installed, the military allowed educational institutions to take advantage of the research resources inherent in multiple site networking. This interlaced network of computer connections spread quickly, and in the early 1980's, the network was divided into MILNET, for strictly military uses, and ARPANET, which, with the advent of

satellite communications and global networking, became the Internet (Reid, 1993).

On a smaller scale, throughout the 1970's, various corporations developed their

own computer networks for intra-organizational interaction. E-mail and computer

conferencing were created, useful for information exchange, but asynchronous

(i. e., messages are stored for later retrieval by other users, rather than the

synchronous co-authoring of messages) and thus less interpersonal than MUDs

would later become.

At the same time as this conferencing research was being done, another group of

programmers was involved in the creation of text-based adventure games in which

a user would wander through a textually-depicted maze, occasionally encountering

programmed foes with whom to do battle. These first single user adventure games,

developed in the early 1970's, expanded the world's notion of computers from

mere super-cooled punch-card-munching behemoths to a more user-friendly conception of computers as toys and even friends.

Inevitably, the networking technology and the game technology crossed paths. In

1979, Richard Bartle and Roy Trubshaw developed the first MUD (called "MUD", for

Multi-User Dungeon; now, the term MUD is commonly accepted as a generic term for

Multi-User Dimensions of many varieties) at Essex University. This original game

became enormously popular with the students at Essex, to whom its use was restricted at first. As various technological barriers were toppled, access to “ MUD” was granted to a widening circle of users in the United Kingdom, which

eventually prompted two results. First, several of the “ MUD” players wrote their

own variations of the game. Second, the computer games magazines took note and

produced a flurry of articles about “ MUD” in the early 1980’s (Reid, 1993, Bartle, 1990).

These two results are related in that they brought about an exponential growth

in the Multi-User Dimension community. By 1989, there were quite a few families

of MUD programming technology, each designed with different goals in mind. Many

of these technologies sought to distinguish themselves from their brethren by

adopting new acronyms (as well as new programming approaches), such as MUSH

(Multi-User Shared Hallucination), MUSE (Multi- User Simulated Environment), MOO

(MUD, Object-Oriented), DUM (Depend Upon Mud (forever)), MAGE(Multi-Actor Gaming

Environment), and MUCK (Multi User C Kernel).

At the time of this writing, there are an estimated five hundred publicly accessible MUDs (Turkle, 1995, p. 11). There also exist an unknown number of

private MUDs, and commercial “ pay-for-play” MUDs. These numbers change from week

to week, as MUDs die out for various reasons quite frequently (e. g., a MUD running on a university computer may suddenly lose the right to do so — especially if the university was not informed of such use). Indeed, “ large MUDs

can be opened from scratch by spending a few hours with FTP,” (Koster, 1996),

<https://assignbuster.com/computers-nonverbal-communications-13704/>



and hence can expire shortly thereafter due to lack of interest. However, many

MUDs survive for years, as evidenced by such hugely popular MUDs as Ancient

Anguish, DragonMUD, and LambdaMOO, each of which boasts over seven thousand

participants.

It must be noted, however, that even though the rate at which people come on and

stay on the Net is increasing, and shows no signs of slowing (Sellers, 1996),

MUDs have remained as one of the least-frequented portions of the Internet. Even

with articles published in such mainstream publications as Time (September 13,

1993), The Atlantic (September 1993), The Wall Street Journal (September 15,

1995), MacUser (November 1995), Technology Review (July 1994), and The Village

Voice (December 21, 1993), even the most cyber-savvy of citizens has likely not

experienced a MUD. There are several reasons for this. First of all, MUDs have

been rather insular, almost underground, in their marketing; there is a single USENET newsgroup dedicated to the announcement of new MUDs

(rec. games. mud. announce). For the uninitiated, this sole advertising space is

quite obscure, if not invisible. As such, it is common for people to be

introduced to MUDs simply by word of mouth, a diffusion method that has met with

limited success. Among people who have heard of MUDs, many assume that they are

simply wastes of time (indeed, MUDs can devour time like few other activities).

Another factor for new users is the fact that the graphical interface is the

Internet industry standard now; if there's not a multi-colored icon to click on,

many recent Internet users will pass it by. As such, it may turn out that the

graphical MUDs currently under development will become the dominant paradigm for

real time chat and adventure games in the years to come. Finally, there is a

steep learning curve involved in becoming acquainted with one's first MUD, including such hurdles as Unix, telnet, the initial login screen, the hundreds of available MUD commands, the local MUD culture, etc.

Previous studies of text based virtual realities:

The current body of communication research on MUDs is scarce, though growing

steadily. Carlstrom's (1992) sociolinguistic study examines the popular MUD LambdaMOO, and points out several notable differences between MUD communication

and real life communication, including issues of proxemics, turn-taking, and the

uses of silence. Lynn Cherney at Stanford University has produced a wealth of

important linguistic studies, such as her (1994) analysis of gender-based

language differences as evidenced on one MUD, and a (1995a) study of the

objectification of users' virtual bodies on MUDs. Another article (Cherney,

1995b) points out the details involved in MUD communication backchannels,

implicitly satisfying Kiesler's query, " Consider the consequences if one cannot

look quizzically to indicate if the message is confusing or ... nod one's head or murmur 'hmm' to indicate that one understands the other person," (Kiesler,

Zubrow, & Moses, 1985, p. 82). Finally, Cherney's (1995b) effort examines the

modal complexity of speech events on one MUD, and suggests a possible classification system for MUD nonverbal communication, including conventional

actions, backchannels, byplay, narration, and exposition.

Michael Holmes is another scholar who has recently contributed to the literature

on MUDs. His (1994) study of MUD environments as compared to Internet Relay Chat

(and other similar "chat" utilities) concluded that the chat services "supply a

stark context for conversation", while MUDs furnish "a richer context intended

to model aspects of the physical world," (Holmes, 1994). Similarly, his (1995)

examination of deictic conversational modalities in online interactions sheds light on such curious observed utterances as "Anyone here near Chicago?",

<https://assignbuster.com/computers-nonverbal-communications-13704/>

(Holmes, 1995). Owen (1994) worked with identity constructions spawned by the

chat utilities of the world's largest commercial Internet provider, America

Online (AOL) and posits the frequent appearance of self-effacing attribution

invitations in online conversations.

As the number and extent of the uses of computer mediated communication (CMC)

have grown exponentially in the last two decades, the communication discipline

has produced a body of literature examining the interpersonal effects of such

interaction. Some such studies purport that CMC is necessarily task-oriented,

impersonal, and inappropriate for interpersonal uses (see Dubrovsky, Kiesler, &

Sethna, 1991, Dubrovsky, 1985, Siegel, Dubrovsky, Kiesler, & McGuire, 1986).

This effect is brought about by a lack of media richness, and is sometimes

called the "cues-filtered-out" perspective (Culnan & Markus, 1987). In other

words, restricting interlocutors to the verbal channel strips their messages of

warmth, status, and individuality, (Rice & Love, 1987). However, as Walther,

Anderson, and Park point out in their excellent (1994a) meta-analysis of published CMC studies, when provided with unlimited time, CMC users gain familiarity with the tools at hand, and communication becomes much more sociable,

indicating that “ the medium alone is not an adequate predictor of interpersonal

tone, “, (Walther, 1995, p. 11). Walther even posits the existence of what he calls “ hyperpersonal” communication, “ CMC which is more socially desirable than

we can achieve in normal Ftf [face to face] interaction,”, (Walther, 1995, p. 18).

This phenomenon stems from three sources. First, CMC interlocutors engage in an

over-attribution process, attributing idealized attributes on the basis of

minimal (solely textual) cues. In fact, Chilcoat and Dewine (1985) report that conversants are more likely to rate their partner as attractive as more cues are

filtered out. (Their study compared face to face, video conferencing, and audio

conferencing, and the results were exactly the opposite of their hypotheses.)

<https://assignbuster.com/computers-nonverbal-communications-13704/>

Second, CMC provides users with an opportunity for “selective self-presentation”

(Walther & Burgoon, 1992), since the verbal channel is the easiest to control.

Finally, certain aspects of message formation in CMC create hyperpersonal communication in that one has time to formulate replies and analyze responses to

one’s queries, a luxury denied, or at least restricted, in face to face dyads.

A considerable number of papers and projects concerning MUDs has been produced

within other disciplines. For instance, sociologist Reid (1994) examines a MUD

as a cultural construct, rather than a technical one, and addresses issues such

as power, social cohesion, and sexuality. Serpentelli (1992) examines

conversational structure and personality correlates in her psychological study

of MUD behavior. Likewise, NagaSiva (1992) treats the MUD as a psychological

model, but draws on Eastern philosophy, and discusses MUD experiences as

mystical experiences. Young (1994) embraces the textuality of MUD experience as

postmodern hyperreality, a rich new hybrid of spoken and written communication.

Numerous articles have been produced within the Computer Science discipline,

many of which are of a non-technical nature, most notably Bartle (1990), whose

experience as the co-creator of the first MUD makes him uniquely qualified as a

commentator, Curtis (1992), another noted innovator in the field (and perhaps

the original author of the phrase “ text-based virtual reality”), and Bruckman (1993), whose extensive work on socio-psychological phenomena in MUDs at MIT has

earned her deserved respect. Finally, Turkle’s (1995) important new book examines numerous MUD- relevant topics, including artificial intelligence and “ bots” (MUD robots), multiple selves and the fluidity of identity (“ parallel lives”), and the effects of anonymity. She points out the psychological

significance of role (game) playing, and reminds the reader that the word



“ persona” comes from the Latin word referring to “ That through which sound

comes”, i. e., the actor’s mask. Through MUDs and other forms of CMC, she believes that people can learn more about all the various masks people wear,

including the one worn “ in real life”.

Recent innovations:

While the original “ MUD” began a tradition of games with monster-slaying and

treasure acquisition as their primary goals, the advent of the MOOs, MUSHes, MUSEs, and perhaps most notably, Jim Aspne’s TinyMUD in 1989, brought about a

new thinking in the purpose of Multi-User Dimensions. Rather than utilizing commands such as “ wield sword” and “ kill dragon”, participants in these “ social

MUDs” use the virtual environment as a forum for interpersonal interaction and

cooperative world creation.

At the same time as these text-based virtual environments were rapidly

multiplying, an arguably more ambitious project was well underway in Japan.

Known as “Habitat”, it was (and is) a “graphical many-user virtual online environment, a make-believe world that people enter using home computers...”,

(Farmer, Morningstar, & Crockford, 1994, p. 3). The creators of Habitat soon discovered that a virtual society had been spontaneously generated as a result

of their efforts. One of the creators claims,

This is not speculation! During Habitat’s beta test, several social

institutions sprang up

spontaneously: There were marriages and divorces, a church (complete with a

real-world

Greek Orthodox minister), a loose guild of thieves, and elected sheriff (to combat the thieves),

a newspaper (with a rather eccentric editor), and before long two lawyers hung up their

shingle to sort out claims. (Farmer, 1989, p. 2)

As these various MUD environments have developed, each with their own particularities of culture, a number of categories have emerged. Social MUDs have become virtual gathering places for people to meet new friends, converse with old ones, get help on their trigonometry homework, play “ virtual scrabble”, and assist in the continuing creation of the virtual environment. Some MUDs are known for their risque activities. On FurryMUCK, players assume the identity of various animals and have “ mudsex” with one another, a rapid exchange of sexually explicit messages.

Professional and educational MUDs have begun to appear recently with more “ serious” uses in mind — their aim is to provide a virtual spatial context (e. g., conference rooms, lecture halls, and private offices) for the participants therein, and even the creation of various pedagogical devices within the environment. A few MUDs have been set up as havens for virtual

support groups for people with common misfortunes or interests. The most popular

variety of MUD, though, harkens back to the philosophy of the original “MUD”,

involving puzzle-solving, dragon slaying, and treasure accumulation.

It is these “adventure-style” MUDs which shall be the topic of inquiry for the remainder of this thesis. While it may be argued that the social MUDs, with interpersonal interaction as their participants’ sole goal, would be more suitable, it is precisely because of this goal that adventure MUDs have been selected. It stands to reason that the communicative phenomena to be found on

purely social MUDs may be even more firmly entrenched than on adventure MUDs due

to the wealth of additional cultural cues which such environments spawn.

Therefore, it is important to demonstrate that 1) virtual cultures develop on adventure-style MUDs, 2) that these cultures are quite real to the participants

therein, and 3) that nonverbal communication occurs in these worlds designed

with point accumulation in mind, and created solely by words.

### Adventure MUDs

While a few “ pay MUDs”, i. e., MUDs which charge for access, do exist (and claim

to be more dynamic and carefully programmed), the vast majority of adventure

MUDs are created and maintained by volunteers. These volunteers are often computer science majors at major universities who have access to the hardware

needed to run a MUD and make it accessible to multiple users at once. Once the

hardware is in place, a “ mudlib” must be decided upon. A “ mudlib” is the most

basic code that makes the MUD run, i. e., the code that defines the mechanisms by

which the spatial metaphor is created, defines the difference between living and

non-living objects, and calculates the formulae involved in combat.

Beyond the technical distinction of which mudlib a MUD runs on, the next most

distinctive feature is probably the theme which guides the builders (i. e., the people who actually program the objects in the MUD – every room, monster, weapon,

etc) in their creation of the MUD. The first MUDs were most commonly based on a

Tolkienesque world of hobbits and giants, swords and sorcery.

Now that the MUD community has expanded, however, diverse themes can be found,

such as MUDs based on Star Trek, Star Wars, and other popular fantasy genres.

Some MUDs (mostly social MUDs) are simply set in American cities, such as BayMOO

(San Francisco) and Club Miami (Miami, FL). Other MUDs are not themed in setting,

but in purpose; they exist as meeting places for people with common interests,

such as support groups for zoophiles, or discussion groups for astronomers.

Still other MUDs are set simply in a virtual representation of the

administrator's home. (The WWW site <http://www.mudconnect.com> contains an

extensive list of current publicly available MUDs).

By far, however, the fantastical swords and sorcery adventure-style MUDs are the

most popular among MUD players. As such, they have been developed perhaps more

than any other, with a rich tapestry of literature from which to draw, and

perhaps even attracting especially imaginative builders and players. It may be

speculated that an additional reason that adventure-style MUDs are so popular

is that the treasure and point gathering that takes place therein appeals to many computer enthusiasts' desire for mastery of technique and knowledge.

Each adventure-style MUD (referred to as simply MUDs from now on, unless

otherwise noted) has a primary dichotomy, often referred to as the

“ mortal/immortal” dichotomy. Simply put, the “ immortals” are those participants

who have access to the programming which makes the MUD run. “ Mortals” do not.

Though the colorful terminology may change from MUD to MUD, this split is sure

<https://assignbuster.com/computers-nonverbal-communications-13704/>

to exist. It should be noted that this is a significant difference between adventure-style MUDs and purely social MUDs (most often based on MOO code), in

which all members enjoy some access to the programming, and therefore the

ability to create their own objects.

Every MUD participant starts out as a " mortal". This entails no access to the programming language at all. That is, they receive all the textual descriptions

of the virtual environment, but none of the underlying code that makes the MUD

run. For the mortals, the spatial metaphor is reified through this limited access. They have no choice but to exist within the spatial metaphor and interact with the other characters and monsters therein.

Most adventure MUDs offer their participants a range of classes, or professions,

(such as fighter, thief, or necromancer), and races (fantastical things like ogres and elves). Besides being a colorful addition to the participant's virtual



persona, these designations have various effects on the player's experience with

the MUD. Ogres may be quite strong, but poor at spell casting. Mages may have an

arsenal of spells at their disposal, but may be struck down easily when hit.

These details become pertinent when one understands the "goal" of an adventure

MUD.

In the maze of rooms that makes up a typical adventure MUD, there reside various

programmed monsters to be slain and puzzles to be unraveled. Players will

typically spend much of their time dashing from room to room engaging in

computer-moderated verbally described combat with these creatures. When

successful in vanquishing these foes (success is determined in a large part by

programmed attributes of the combatants, though player strategy plays a part),

players may reap their bounty. Rewards such as equipment (which may aid the

character in future battles or sold at the shop), or money (which may be used to

purchase equipment), and other treasures may be found. Above all, though, the

player of the adventure MUD seeks “ experience points”, which determine how

powerful the character can become. When a sufficient quantity of experience points have been collected, the character may “ advance a level”, thereby increasing his or her mastery of combat, spell casting, or other skills.

There are risks, of course, in such valorous activity. Every time a character enters into combat with a foe, there exists a chance of death. The severity of players’ deaths varies from MUD to MUD. On some MUDs, characters may simply lose

the treasures they have amassed during their session. On others, significant reductions in a character’s quantified skill levels may occur, while on a few MUDs, death is quite realistic and harsh - the character is simply erased.

Death is not a random occurrence on well-tuned adventure MUDs. Each character is

a quantifiable distance from death at any given moment, often referred to as

“ hit points”. Every time s/he is struck in combat (which proceeds quite rapidly,

text scrolling across the player’s screen), that number of hit points is reduced.

When it reaches zero, the character dies.

Since characters engage in combat often, and combat reduces hit points, there

exists a need for healing, so that characters do not simply get weaker with each

successive battle. On adventure MUDs, these biological needs are taken care of

through the presence of pubs and restaurants from which one may buy various

cocktails and foodstuffs, all of which contribute to a character’s health. This

virtual biology is extended in that characters can only eat and drink a certain amount before becoming satiated, after which they need to wait a short time

before consuming again. Some MUDs even require that each character eat from time

to time even if they do not require healing – they get hungry.

Besides food and drink (which cost gold coins), there exist healing spells which

certain classes of character may cast. This is just one of the ways that interaction between characters is spawned on MUDs. If one character is injured

and knows that a healer is connected to the MUD at the time, s/he may seek the

healer out and ask for help, perhaps even offering something in exchange. Some

MUDs, for instance, require material components for spell casting (eyes of newt,

and so forth), thus providing non-spell casters with some bargaining power.

An additional source of interaction between players is the guild system.

While

each character has a "class", or profession, which determines what proficiencies

they have, guilds are more like social organizations. A guild could be based upon traditional notions of chivalry, or black magic, or the love of chocolate,

or anything else that the creators decide. Guilds generally have a private location for guild members to congregate and interact, and perhaps a few

<https://assignbuster.com/computers-nonverbal-communications-13704/>

specialized signs or signals that they use to recognize one another. Guilds often provide an additional reason for interaction, even to those players most interested in accumulating experience points.

Many MUDs allow characters of sufficient experience the opportunity to ascend

into the ranks of the “immortals”, or those individuals with some degree of access to the actual programming that makes the MUD run and the power to create

and manipulate objects therein. For the immortals, combat skills are completely

irrelevant; they can simply erase any (non-player) foe in their path. As such, the very nature of the environment is completely different for them.

Within the Immortal group, there are several levels of access to the programming,

each with its own colorful moniker. The hierarchy outlined below is based roughly on the author’s acquaintance with two popular MUDs, Ancient Anguish

(described at length in Masterson, 1995) and Paradox II (development of this

hierarchy described in part in Masterson, 1995b). The lowest level of Immortals

includes the Builders, Wizards, or Creators. This group of individuals consists generally of those players who have reached a certain level of expertise and experience, and have been granted limited access to MUD code. They are generally

given a directory (MUD syntax is much like the Unix operating system) in which

they can write and edit files which may create objects in the MUD. It is this group of immortals whose responsibility it is to continue the creation and expansion of the virtual geography of the MUD. It is also generally the largest

group of immortals.

Various other groups of immortals are responsible for overseeing the activities

of the wizards and the players. A common division involves one person (often

called an “ arch”) to determine if the areas (this term includes the monsters and

objects therein, as well) that the wizards are making are of sufficient quality

(imaginatively described and comprehensively coded) to install in the game for

players to enjoy (the "QC" or "Approval Arch"). Another arch might be responsible for ensuring that the areas all are smoothly integrated into the milieu of the MUD, and that there are neither areas in which players will suffer

grave misfortune for little reward nor areas from which players stagger home with loads of treasure with little risk (the "Balance Arch", or "World Arch").

Another Arch may be responsible for ensuring that the underlying code that governs combat, character death, and interaction of objects runs smoothly (the

"Mudlib Arch"). Finally, there is usually an arch whose responsibility it is to ensure a fair and equitable environment for the wizards to code in and the players to adventure in; in other words, and individual responsible for the upkeep of the rules of the MUD (the "Law Arch"). Though this scheme is by no

means the only way that adventure MUDs govern themselves, it is quite common.

All of the arches will have greater access to the programming than do the

wizards.

The individuals who occupy the top tier of the adventure MUD immortal hierarchy

are known as the Admins (administrators). This group of individuals is endowed

with the ultimate responsibility for maintenance and the upkeep of the MUD.

They

have access to every file that comprises the MUD. Mortal concerns are outside

the scope of their responsibilities.

The issue at hand

A common descriptive metaphor in the literature of nonverbal communication

states that “ We don’t need to be told we are at a wedding.” In other words, our

nonverbal communication provides essential contextual cues, moment by moment,

which help us and others to make sense of our interpersonal situation. Just as a

picture may take the place of a thousand words, so too may a gesture.



It can be seen from the preceding section that there are numerous attributes of

MUDs that give rise to interaction between participants. This interaction brings

about a sense of community among participants on a given MUD. Indeed, some

people get quite passionate about their membership in the “ MUD-family”, and

connect to the MUD for as many as 80 hours a week, which is testimony to MUD

conversations’ compelling interactivity. Given that this is the case, though,

how is it that in virtual conversations.