The Tentative Discussion of Icons' Substituting for Body Language in CMC

Li Xu

The School of Foreign Languages, Dalian University of Technology, Dalian City, Liaoning Province, China
Email: margaretx2007@hotmail.com

Abstract—Icons, as new ways of transmitting information, are used in high frequency in CMC, and to certain extent, they play important roles of substituting for body languages used in reality communication. Firstly this essay illustrates the facts that icons came into being and have been spreading with CMC, brought forth the special nonverbal intercommunicating functions of icons in CMC. Then based on those intercommunicating functions of the body languages in face-to-face communication, the article analyses and discusses the phenomena of icons' taking on some functions of "internet body languages" and their realistic meanings of this cross-subjects net-language culture .

Index Terms—computer-mediated communication (CMC), icons, body languages

In this information-based society, computer and internet are changing people's life in every aspect with amazing speed, and have become indispensable to our life. Computer-mediated communication, for example, narrows people's distance, especially using icons in the virtual world makes communicating people far away feeling as if they are face to face, feeling each other's emotion instantly so as to make their communication more vivid. Icons in CMC of the virtual world, to some extent, function as body languages in the real world communication. The article will discuss this specific issue from three aspects: conceptions of important terms mentioned in the article, their interrelationships and final conclusions.

I. CONCEPTIONS

A. Definition on CMC

CMC has been in existence since 1969 (Metcalfe, 1992). Ever since then, researchers have used it as a tool to examine its effectiveness within organizational, interpersonal, and mass communication contexts (Metz, 1994), so they have approached the definition on CMC from various aspects.

Pixy Ferris (1997) explored the term used in CMC application research: In general, the term computer-mediated communication refers to both task-related and interpersonal communication conducted by computer. This includes communication both to and through a personal or a mainframe computer, and is generally understood to include asynchronous communication via email or through use of an electronic bulletin board; synchronous communication such as "chatting" or through the use of group software; and information manipulation, retrieval and storage through computers and electronic databases.

John December gave the definition on *Internet-based* CMC: Computer-Mediated Communication (CMC) is the process by which people create, exchange, and perceive information using networked telecommunications systems (or non-networked computers) that facilitate encoding, transmitting, and decoding messages. Studies of CMC can view this process from a variety of interdisciplinary theoretical perspectives by focusing on some combination of people, technology, processes, or effects. Some of these perspectives include the social, cognitive/psychological, linguistic, cultural, technical, or political aspects; and/or draw on fields such as human communication, rhetoric and composition, media studies, human-computer interaction, journalism, telecommunications, computer science, technical communication, or information studies.

Wikipedia, the free encyclopedia defines computer-mediated communication (CMC) as any communicative transaction that occurs through the use of two or more networked computers. While the term has traditionally referred to those communications that occur via computer-mediated formats (e.g., instant messages, e-mails, chat rooms), it has also been applied to other forms of text-based interaction such as text messaging.

And personally, we prefer J. Michel Metz's (1994) definition, which seems to us more understandable, comprehensive and objective. According to him, Computer-mediated communication (CMC), for purposes, can be defined as any communication patterns mediated through the computer. These include, but are not limited to, computer conferencing, electronic mail (email), relay chat lines, and Multiple User Dungeons (MUDs). CMC itself is made up of two distinct classes of communication: synchronous and asynchronous. Asynchronous CMC, such as email, … … Internet Relay Chat, a synchronous form of CMC … … the two are both CMC, as well as legitimate forms of communication … …

B. Definition on Icons

The term "Icons", many researchers call them "emoticons", a hybrid name inferred from the words "emotion" and "icons" (Metz,1994). According to Merrian-Webster's Online Dictionary, emoticons are defined as a group of keyboard characters (as :-)) that typically represents a facial expression or suggests an attitude or emotion and that is used especially in computerized communications (as e-mail).

Eli Dresner (2010) and his partners think that emoticons refer to graphic signs, such as the smiley face, that often accompany textual computer-mediated communication (CMC). They are most often characterized as iconic indicators of emotion, conveyed through a communication channel that is parallel to the linguistic one. … … Emoticons vary considerably in form and meaning. Some signs, like the originals, use only ASCII symbols, while many newer ones are graphically rendered (e.g., ☺). We find that emoticons don't always express emotions as the hybrid name "emotion icons " tells on surface, but also convey pragmatic meanings. This function needs to be discussed from linguistic, rather than extralinguistic, points of view.

The addition of graphic signs to printed text made its debut in CMC in 1982, when the rotated smiley face :-) was first proposed —— along with a frowny face :- (—— by a computer scientist at Carnegie Mellon University, Scott Fahlman, as a means to signal that something was a joke (or not) in messages posted to a computer science discussion forum (Krohn, 2004). Since this early stage in the history of CMC, hundreds if not thousands of similar signs have developed, many of which have been catalogued in dictionaries and on Websites (Dresner et al., 2010).

Kiesler, Siegel, & McGuire (1984) reflects how the term "emoticons" is typically conceived today: They are construed as indicators of affective states, the purpose of which is to convey nonlinguistic information that in face-to-face communication is conveyed through facial expression and other bodily indicators. In textual computer-mediated interactions, these valuable channels are missing, the argument goes, and therefore a replacement for them was created in the form of emoticons.

C. Definition on Body Language

Body language belongs to the scope of paralinguistic research. The term "paralinguistics" was put forward firstly in 1958 by an American G. L. Trager. Paralinguistics are the aspects of spoken communication that do not involve words. These may add emphasis or shades of meaning to what people say. Some definitions limit this to verbal communication that is not words. For example, body language, gestures, facial expressions, tone and pitch of voice are all examples of paralinguistic features. All the non-verbal elements of communication used to modify meaning and convey emotion are within the study of paralinguistics (Tian, 2007).

James Borg (2010) states that human communication consists of 93 percent body language and paralinguistic cues, while only 7% of communication consists of words themselves; however, Albert Mehrabian, American psychologist, researcher whose 1960s work is the source of these statistics, has stated that this is a misunderstanding of the findings. His "7%-38%-55% rule" tells that the three elements account differently for our liking for the person who puts forward a message concerning their communications of feelings and attitudes: 7% of message pertaining to feelings and attitudes is in the words that are spoken; 38% of message pertaining to feelings and attitudes is paralinguistic (the way that the words are said); 55% of message pertaining to feelings and attitudes is in facial expression. The formula is "Total Liking = 7% Verbal Liking + 38% Vocal Liking + 55% Facial Liking". Vadim Kotelnikov (2001) writes on "Your People Skills" that in face-to-face communication, your message is conveyed through 50% body language, 40% tone of voice and 10% words. Anyhow we will think that approaching successfully the communication purpose mainly depends on paralanguage as Mehrabian's experiment proved.

The term "body language", an important component in paralanguage, was put forward in 1952 by American professor R. Birdwhistell from Pennsylvania University. Wikipedia, the free encyclopedia defines that body language is a form of mental and physical ability of human non-verbal communication, which consists of body posture, gestures, facial expressions, and eye movements. Humans send and interpret such signals almost entirely subconsciously.

A Chinese scholar Zhuang Hecheng (1995) defined body language in his article that our facial expression, head movement, sitting posture, gesture and a part of the body movement, body contact, conversation position and distance. And all that glaring, frowning, nodding, smiling, shrugging, keeping silent, are sending out certain information, expressing certain meaning consciously and subconsciously. People call this nonverbal communication as body language.

II. INTER-RELATIONSHIPS

A. CMC and Icons

CMC became in existence in 1969 (Metcalfe,1992), when computer use meant people could enter punch cards and receive greenbar printouts without the use of monitors, came the discovery of the ability to send one-line messages between college campuses. Thus, to alleviate the boredom, programmers then decided to try to create "chat programs" which would also enable somewhat more reliability in sending and receiving these messages (Kell, 1988). The impact came as such a surprise, even those who helped develop the technology had no idea that communication would be its most important asset (Metcalfe, 1992).

From the earliest beginnings of computer message systems, one of the first and most influential discoveries was the complete lack of expressive (nonverbal) behavioral cues (Sproull & Kiesler, 1986). As a result, traditional forms of

communication, such as the nuances of a conversation created with nods, smiles, eye contact, distance, tone of voice and other nonverbal behaviors, become "mystery" variables, causing much misunderstanding as a result of perceived meaning derived from context and the tone automatically attributed by a human's imagination (Metz, 1994).

Reid (1991) stated that users must and do compensate for the lack of these contextual cues. CMC users have managed to develop ways of sending computerized screams, hugs, and kisses. And Metz (1994) explained that these "emoticons" … … are necessary for the comprehension of the meaning behind the messages. Emoticons have developed into an artistic display of emotion and meaning, without which much of computer communication would be spent verifying the intent of each message.

There are four kinds of emoticons, each with its own specific purpose. First, there is the common practice of simply verbalizing physical cues (Metz, 1994). For example, the genuine laughter is literally typed as "hehehe". Second, physical actions taken by CMC users are typically described within two asterisks (Reid, 1991). eg. <Lancelot> *Bowing low in respect to Lady Marion's presence* How fair thee, Lady Marion? Third, visual expressive content includes the ability to stress, but with a subtle, yet important, difference. This is the inclusion of terms addressed in all capital letters. Here, the stress of the word is to be perceived as near- yelling, and quite frequently other computer users will comment as such (Metz, 1994). For example:

A: HEY EVERYBODY, WHAT'S UP?!?

B: Why are you yelling?

Fourth, emoticons is a "shorthand" for the description of physical condition (Reid, 1991). Commonly we call them "smileys" (Metz, 1994). For example:

: -)   or   :)   a smiling face

: - (or   : (an unsmiley: an unhappy face

: -P   someone sticking out their tongue

8 -)   someone wearing glasses

Examples are described by Reid (1991).

With CMC being used widely and computer technology being developed quickly, a great number of emoticons have broken through the beginning simple characters built up, appeared more creative, artistic, and vivid icon pictures. We can see this internet icon development of two common emotion expressions like smile and sweep:

Smile —— first simple character built-up: : -) or   :) ,   :D ,   : P ,   (H)

Then come sketch icons : black – white sketch smile   ☺ ☻

colorized smile

now are personalized color display

Weep —— first simple character built-up: :'(or   :' -(,   :~ ,   :((

colorized sketch weep

personalized color display

B.   Body Languages and Icons

Body language is an indispensable complement to speech acts. The earliest research about body languages can date back to Greek Aristotle, but the main scientific research started after World War II. "The Expression of the Emotions in Man and Animals", a book by Charles Darwin, published in 1872, concerns genetically determined aspects of behaviour (Wikipedia). In the first half of 20th century, the research on this field wasn't systematic, only concerning about voice, appearance, clothing and facial expression certain specific aspects. Until 1952 Professor Birdwhistell at University of Pennsylvania published "Introduction to body language", the research on this field had got break-through. Birdwhistell originally coined the term "Kinesics" (body languages), and became the research leader in this field in the west. In 1980's, the research on this field went further and became mature, which represented by Professor Brosnahan from America Illinois State University, and scholars like Loretta A. Malandro, Larry L. Barker and Deborah Ann Barker. In China, the research on this field starts comparatively late, since 1980's, it has made some achievements under the influence of western high tide of body language research, but there's still large distance from the west.

Icons are used in CMC, together with typed words, have almost the same function as body languages, which complement verbal information. When body language and voiced language are used together, body language undertakes almost all the pragmatic meaning and emotional meaning expressed of voiced language. After years of research, body languages are considered with the following functions, and the author thinks icons also can function like that:

1. Body languages have the symbolic function.

As a soundless language sign, symbolic body languages contain abstract contents, and nationality, culture, custom and tradition constrain their formation. Many body languages have symbolic character, and the meanings are fixed to tell certain cultural implication. For example: English-speaking people uphold first finger and middle finger to form a

"V", with palm towards outside, expressing cheers or wishing victory. And icons have this function, too. See the icons: means victory, and means OK.

2. Body languages have the complementing function.

According to Birdwhistell, the communicative message conveyed by verbal behaviors in conversation only contains 30%, and the other messages are all conveyed by nonverbal means (basically body language). That is to say, sometimes the voiced languages were powerless and the nonverbal behaviors will embroider on these speech acts by eye contacts, facial movements, gestures, postures, etc. These silent body languages gain a head start by remedy the powerlessness and inadequacies. For example, when we direct the road for people who are asking the direction, we gesture with hands, which has the function of complementing the verbal information. And there're many icons in CMC with this function.

See the icons: :—S expressing fear, :—X   expressing saying nothing. complementing to tell Goodbye. You can add these emoticons to further convey the inside feeling when you write email or chat with people online.

3. Body languages have the emphasizing function.

Actually, social communication usually mixed two kinds of tools — verbal and nonverbal. When one is speaking, gesture, eyes movement, posture and facial expression are always accompanying voiced language. All the movements including all the nonverbal behaviors are behaved as one aim—deepen the impression of meaning. For example, we're uttering Shhh this sound, while putting first finger on the lip to tell people "Be quiet". This gesture has the emphasizing function more than the voiced language. And the icons in CMC have the same function. See the icons: means "Be quiet", and means "why". They have the emphasizing functions.

4. Body languages have the function of expressing emotion.

Compared with language communicative functions, nonverbal behaviors are more authentic and accurate to convey information and record the decisive meaning through language environment. Because languages sometimes are insincere in one's words and nonverbal behaviors are the authentic feeling from one's heart. For example, you have received a present from your friend that you do not like. Though you will say, "I like it very much" happily, your facial expression will show that you are unhappy. That is to say, your facial expression tells your true emotion. And icons in CMC even though hide people's real emotion, still convey communicators emotions as its original name (emoticons) means emotion icons. There're a large number of icons expressing various emotions. The typical smiling and crying icons are :   :) , :' (. And conveying the happiness, conveying "very angry".

5. Body languages have the regulating function.

Communication refers not to one or two participants. A period of conversation can be described as a series of listening and speaking, such as start chatting, change topics and give an end to it. Nonverbal behaviors are usually used to regulate such kinds of cooperation. When there is a conversation, one will show another about his emotion response and attitude with the help of nonverbal behaviors. Regulating is usually used to keep talking in a face-to-face conversation. It implies the speaker that he can go on talking, repeating again, give a further explanation, speak faster, speak more lively, and invite others to give a speech, etc. And icons in CMC also have the same function. For example, some chatters are discussing a topic, if one of them will stop talking it to change the topic, but the other one tell the one that I want to speak, preventing the speaker to draw away the topic. He can use not only words but also icons to hint the one who wants to stop the topic with the icons like or . Icons used in this way have the function of regulating and controlling the information communication.

6. Body languages have the substituting function.

Before languages were produced, people had to use a variety of gestures to explain what they want to say in order to cooperate better or live better. Obviously it became the main tool of communication, and now we see that some individuals use relative body language when they cannot or it is inconvenient to express their feeling to achieve the same results instead of oral language and written language. That is what we said of communicative function. Sign languages that are used by the deaf and dumb, semaphore that were used on ports and wharfs or ocean liners and warships, judging gesture that were used in sports competitions by the judges, gestures that were used by policemen who direct the cars and people on streets all belong to substitutable body languages. What is more, in daily life people shake hands to send their respect to others, waving hands to say goodbye, clapping hands to welcome others. And icons also can be used to substitute typed words to deliver the information. For example, without saying hello when you start talking with people online, you may use first instead of saying hello. When you want to go offline, you may upload an icon like and instead of saying "bye bye".

In fact, internet icons are used as internet body languages so often, and one icon sometimes has not only more than one communicative function, but also can be used in various occasions. The sheer quantity of these icons using in CMC goes beyond humble beginnings into a depth of imagination and creativity that defies such a simple explanation (Metz,

1994). However, such creativeness implies that computer users have the ability to adapt to limited communication situations, and even substitute body languages using in the reality to replace conversational shortcomings in CMC.

III. CONCLUSION

A. Icons in CMC Substituting for Body Languages

CMC is a communicative mode built on internet. With the new technology coming into being, a new trend of culture has been a popular phenomenon. According to the definition of online Wikipedia: Cyberculture is the culture that has emerged, or is emerging, from the use of computer networks for communication, entertainment and business. It is also the study of various social phenomena associated with the Internet and other new forms of network communication, such as online communities, online multi-player gaming, social gaming, social media and texting. The communicative behaviors based on internet are conducted in the virtual environment. But, as same as the interpersonal communication in the real life, people's language communication in the virtual world are also done in certain community, … … online communication has outstanding characteristic of virtualized communicative behaviors. From the standing point of communications research, these features are different from the communicative behaviors in the reality, because they represent a kind of special cyberculture, which is worth further researching and exploring. (Yang, 2004)

Internet icons in CMC play the role of "internet body languages", but since they contain the word "internet", they are characteristic of obvious cyberculture. In Chinese CMC, "English and icons seemingly prevail among internet communicative languages" (Zhang, 2007). A large number of icons make internet communication more vivid because they can quickly and easily express communicators' feelings through long distance. Internet icons are not only with the communicative functions of body languages, but also more varied. This special internet language represents the new characteristic of a new culture in the information age, and its function of expressing, transmitting information is same as body language used in the reality communication. It is very common for icons to be used as "internet body languages" in CMC.

B. The Significance Analysis of Icons Effect

1. Positive aspects

a. Internet icons have the function of body languages in the reality communication. Conveying emotions fast and vivid, as in face-to-face communication, compensates the time and space gap. For example, a friend in the US can express his happy emotion to the friend in China by using icons even though they can't see each other when chatting. It is easy for two sides of the communicators to crystal understand each other's emotion.

b. Internet icons provide shy and retiring people with the convenience to express personal emotion. The anonymity associated with conversing with a terminal between the participants is a boon for those people who suffer from shyness (Reid, 1991). Furthermore, internet icons offer people the opportunity to open up to a complete stranger, disclose the emotional feelings which people would hesitate to mention tete-a-tete to an individual. Therefore, internet icons makes CMC more open and free. That is the reason why a great number of people all over the world like adopting CMC as their communication helper.

c. With more and more people getting familiar with internet and computer, the number of internet icons has skyrocketed, which showers netizens with various icons to choose in order to tell exactly what they want to. Now netizens can design icons by themselves and publish them online so as for the public to use freely. Therefore, internet icons display a variety of outlooks and values on life, at the same time internet provides people having the talents of network arts the opportunity and platform to carry out their abilities.

d. They can easily understand each other, if people speaking different languages from different countries meet online and communicate by internet icons. People of different titles and of different statuses are equally treated online, because they don't need to tell each other about that. if they meet online, they won't consider whether the superior's happy or not, so as not to carefully weigh up a person's words and expressions. These features make CMC diversified and equalized so that it's a good channel to develop international communication and netizens personalities thoroughly.

2. Negative aspects

a. CMC is still different from face-to-face communication, on one hand it offers people so much convenience, on the other hand it also offers some immoral people the chance to cheat by using internet icons to express hypocritical emotion, which is difficult to identify sometimes. Internet icons encourage disinhibition among its users. The lack of social context cues are read as an obscuring of the boundaries which delineates the forms of behavior which are acceptable or unacceptable. With little regulating feedback to govern behavior, users behave in ways that would not generally be acceptable with people who are essentially total strangers (Reid, 1991).

b. One of the advantages of using internet icons in CMC is convenient for people to express their emotions, but it will also give some people who are not skillful at social occasions in the reality more excuse to escape the reality, dependency on the virtual world, and not helpful for all-round personality development. This phenomenon is uncommon, but nonetheless true. Self-disclosure among CMC participants results in attachment and, ultimately, involvement.

c. Cyberculture strongly conflicts with traditional, ethical culture. The tendency of network internationalization is undermining the individual development of ethical culture. Internet icons as one special network language of the

cyberculture phenomena have been affecting the traditional communication mode, communication language, communication method, etc.

REFERENCES

[1] Albert Mehrabian. Mehrabian's communication research. Retrieved from http://www.businessballs.com/mehrabiancommunications.htm. Retrieved in 03-2012.

[2] Cyberculture. Online Wiki Dictionary. http: //en.wikipedia.org/wiki/cyberculture. Retrieved in 07-2008.

[3] Eli Dresner, Susan C. Herring (2010). Functions of the Nonverbal in CMC: Emoticons and Illocutionary Force. *Communication Theory*. vol. 20, no. 3, pp. 249-268.

[4] Emoticon. Merrian-Webster's Online Dictionary
http://www.merriam-webster.com/cgi-bin/dictionary?book=Dictionary&va=emoticon . Retrieved in 07-2008.

[5] James Borg (2010). Body Language: 7 Easy Lessons to Master the Silent Language. Upper Saddle River, New Jersey, U.S.: Pearson Education, Inc. Publishing as FT Press.

[6] John December. What is CMC. Retrieved from http://www.december.com/john/study/cmc/what.html. Retrieved in 03-2012.

[7] J. Michel Metz. (1994), Computer-mediated Communication: Literature Review of a New Context, *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century,* Volume 2, Number 2, pp. 31-49.

[8] Kell, Jeff. (1988). Relay: Past, Present, and Future. Paper retrieved from http://web.inter.nl.net/users/fred/relay/relhis.html. Retrieved in07-2008.

[9] Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer- mediated communication. *American Psychologist*, 39(10), 1123-1134.

[10] Krohn, F. (2004). A generational approach to using emoticons as non-verbal communication. *Journal of Technical Writing and Communication*, 43,321-328.

[11] Metcalfe, B. (1992). Internet fogies to reminisce and argue at Interop Conference. *Infoworld*. 21, p.45.

[12] Pixy Ferris. (1997). What is CMC? An Overview of Scholarly Definitions. *Computer-Mediated Communication Magazine*. Volume 4, Number 1. Retrieved from http://www.december.com/cmc/mag/1997/jan/ferris.html. Retrieved in 08-2008.

[13] Reid, Elizabeth M. (1991). Electropolis: Communication and Community on Internet Relay Chat (Unpublished thesis). University of Melbourne. Retrieved from http://www.irchelp.org/irchelp/misc/electropolis.html. Retrieved in 02-2008.

[14] Sproull, L., and Kiesler, S. (1986). Reducing context cues: electronic mail in organizational communication. *Management Science*, 32, 1492-1512.

[15] Tian Hua, Song Xiulian. (2007). Outline of Paralanguage Communication. *Journal of Northeast Normal University*, Vol. 1, pp. 111-114.

[16] Vadim Kotelnikov. (2001). Your People Skills. The World's #1 in Business e-Coaching. Retrieved from http://www.1000ventures.com/products/bec_mc_people_skills.html . Retrieved in 03-2012.

[17] Yang Yonglin. (2006). Research on Social Linguistics: Culture, Color, Thinking. Beijing: Beijing Blue Imagination Publishing Co. Limited.

[18] Zhang Jiali. (2007). Brief Analysis of the Formation and Impact of Internet Communicative Language. *Journal of Inner Mongolia University for Nationalities,* Vol. 5, pp. 22-23.

[19] Zhuang Hecheng. (1995). On Body Language and Its Symbolical Functions. *Foreign Languages and Foreign Language Teaching*, 5, PP. 6-10.

Li Xu was born in Yingkou, Liaoning Province, China in 1968. She received her M.Ed. degree in English education & curriculum from the School of Foreign Languages, Northeast Normal University, China in 2000.

She is a lecturer in the School of Foreign Languages, Dalian University of Technology, Dalian, China. Her main research interests lie in applied linguistics, like CALL, TESOL and ESP.