

New Development of Mobile Instant Messaging: Virtual Body Communication Interaction

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Abstract. People's non-verbal communication, accounting for as high as 70 percent in daily communication, can deepen interpersonal communication and convey what cannot be conveyed in language. It, however, has not been fully used in present mobile instant messaging. The author of this paper tries to integrate virtual body communication interaction into mobile instant messaging through analyzing mobile instant messaging and its user distribution. Under this mode of communication, mobile phones will be used as the communication channel with cartoon comic and supply varied applications for different genders as its main style and hence achieve interaction and diversify the ways of interpersonal communication.

Keywords: daily communication, body language, mobile instant messaging, gender.

1 The Current Situation of China's Mobile Instant Messaging

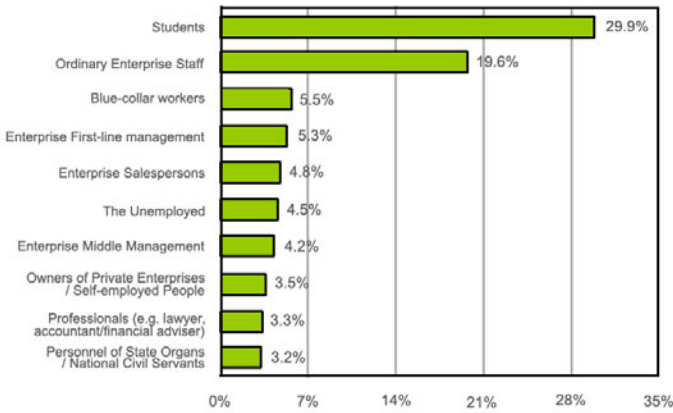
1.1 The Scale of China Mobile IM

With the development of the internet and mobile telecommunication, modes of daily communication in the physical world have been simulated into the virtual world. IM (short for Instant Messaging) is among the most important modes of internet interpersonal communication. According to the forecast of iResearch, IM users of China will reach 490 million in 2012, accounting for 80.3% of all netizens. It is reported that China mobile IM users had arrived at 98 million, demonstrating a 44.1% year-on-year sharp increase.

1.2 The Users of China Mobile IM

The survey of the age distribution of IM users in 2010 shows that mobile terminal users, as a whole, tend to be young and people aged 18-24 are the first principle part of users, accounting for 56.7%, among which, the students occupies the overwhelming proportion. (see Fig. 1). Meanwhile, the data shows that, in terms of the gender proportion of IM communication users in 2010, the male is higher. The male user is 84.6%-it's the vast majority of users, while the female one is 15.4%. Therefore, this research has taken collage students, one of the main user groups of IM, as the subject of the research and carried out further sort research based on gender-specific users.

Career Distribution of China's Mobile Phone Instant Messaging Users in 2010 (TOP 10)



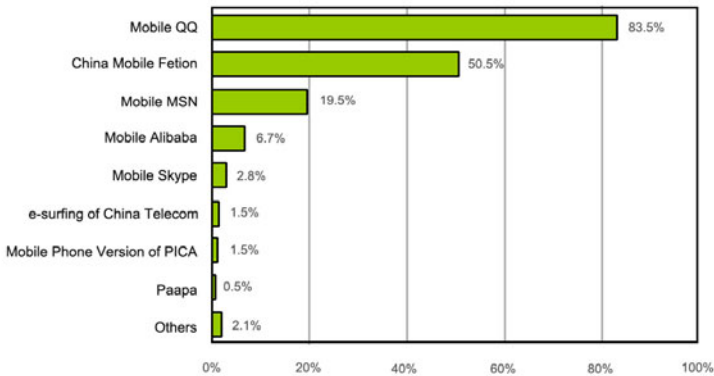
Sample Description: N=22305 (The data of this chart is obtained through the research of 10 main-stream mobile phone networking websites)
 Source: www.iresearch.com.cn

Fig. 1. Distribution of China's Mobile Instant Messaging Users in 2010[1]

1.3 Software Supporting China Mobile IM

For China's young people nowadays, work and life greatly rely on the network and mobile telecommunication. Particularly in the aspect of communication, logging in QQ (this IM software accounts for 76.2% in the Chinese market) at any time, and any where has become one of the necessary interpersonal interaction means for them. (see Fig. 2). The findings of iResearch also shows that in the current mobile IM market of China, 83.5% users are using mobile QQ on their mobile phones, so the design application part of this study has chosen China QQ as the software carrier.

Distribution of Software Most Frequently Used by China's Mobile Phone Instant Messaging in 2010



Sample Description: N=22305 (The data of this chart is obtained through the research of 10 main-stream mobile phone networking websites)
 Source: www.iresearch.com.cn

Fig. 2. Distribution of Software Most Frequently Used by China's Mobile Phone Instant Messaging [1]

2 Daily Interpersonal Communication

2.1 Non-verbal Communication and Interaction Communication

Psychological and communication science research shows that 70—80% information in communication is transferred via body language and facial expressions. Compared with dialogue language, it can express richer thoughts, and express the subtle emotion in an easier way.

However, in the modern interpersonal communication mode with the IM as the leading approach, text input with a few smileys and facial expressions are the main communication mode, which greatly lacks of non-verbal interaction. This one-way mode of communication is confined to text input and hence cannot serve the purpose of interactive communication.

2.2 Body Interactive Communication of University Students

In the research, 110 university students are surveyed, among whom 58 are male and 52 female. It has been found through observation that university students in daily communication, compared with adults, pay less attention to rituals and are not good at accurate communication via written language. Also they are more likely to resort to body language for communication and use it more frequently than adults. (see Fig. 3).

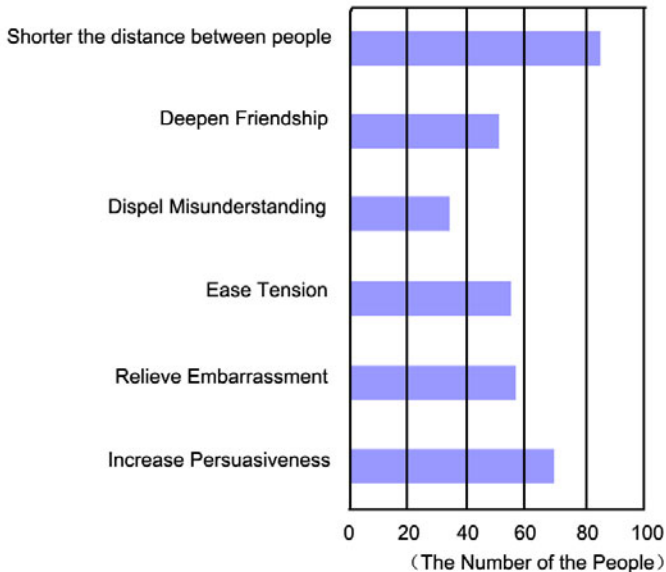


Fig. 3. University Students' Ideas about Body Language Communication

It can be seen in Table 3 that university students holds that communication via body language can bring people closer together and make convincing what is communicated. It can, therefore, ease embarrassment and tension and deepen

relationships and dispel misunderstanding. For indoorspeople (i.e. those who prefer to stay at home doing a lot of things through the internet), interactive communication via body language is a good and important way of forming healthy interpersonal relationships.

2.3 University Students' Opinions about Communication via IM

University students, we find through interview and questionnaire, generally agree on the fact that considerable problems may arise with communication via Mobile QQ in the form of written language. It is complicated and fatiguing to type in letters and words alone cannot fully express feelings and may thus lead to misunderstanding. Likewise, a few smileys of Mobile QQ cannot convey complex feelings, and nor can it simulate real interaction.

2.4 Effects of Gender on Communication

The respective research on different genders shows that communication via body language has a more positive effect on male University students (hereafter referred to as male students) than on female University students (hereafter referred to as female students).

Characteristics of Male Students' Body Language Communication

- Preference for lots of body expressions in the daily body language communication.
- More big and rough movements which allows more intensity and room for acts and are furious on some occasions.
- Significant difference in their ways of dealing with males and females. Their movements tend to be bigger in amplitude to the most intimate male friends. (see Fig. 4,5). But when facing the female, they will be more prudent with their body language. Especially in the case of meeting unfamiliar female, tentative movements with small amplitude are in the majority.



Fig. 4 - 5. Male students often do big and rough acts to their roommates, which shows their intimate relationship and meanwhile improve their relationship

Characteristics of Female Students' Body Language Communication

- Comparatively subtler and more sensitive body movements
- More use of body language when expressing feelings like remorse, gratitude or excitement which are embarrassing to mention.
- Increasing amplitude of body communication with the intimacy degree of relationship, regardless of gender.

2.5 Effects of Gender on Communication via Written Language

Many researches indicate that female is superior to male in language ability. According to the statistics from US Ministry of Education, boys are 1-1.5 years behind girls of the same age in reading and writing [2]. China's research on language shows that the fact that female students score higher than their male counterparts in content grading is linked, in some degree, to more frequent use of attributive adjectives and adverbs. [3]

In terms of the gender proportion of China's IM users, the vast majority of users of IM in China are male netizens, most of whom are not good at communication in written language. If their body language communication in daily life can be transferred to Mobile IM, demands of IM users will be greatly gratified and bring prosperity to the IM market.

3 The Future Development of Mobile QQ

University-student users are chosen as the subjects of this research so that a new mode of Mobile QQ—body language interactive communication—is designed in place of traditional one-way discrete design of Mobile QQ.

3.1 Definition and Features of Users

Logging on the internet through mobile phones, those city university students usually have access to enough web resources.

Because of this feature of this user group, new IM mode is designed to cater to their feature, presenting them the media in the form that is familiar to them. With their daily life and the times being taken into consideration, the future development of China Mobile QQ design can be characterized by three expressive features: animation, game, and joke.

3.2 Design Ideas about Mobile QQ Show via Body Interactive Communication

Following the development trend of future mobile phones, this research uses touch screen mobile phone as the carrier to design the concept product of Mobile QQ. The following part will give a brief introduction of some design ideas about Mobile QQ via body interactive communication:

- Design brings both parties of IM to the same scene to establish an interactive state;
- Introduce body interactive communication by doing acts to the image of the other party or to oneself;



Fig. 6. Icons Images of Mobile IM Originating from Animated Films and Games

- Use animation or game as much as possible. (see Fig. 6) and try to avoid ambiguity in understanding by doing the acts that have generally accepted meaning;
- Protect privacy, prevent misuse like spreading porn or violent content and take network ethics into consideration;
- Give some thoughts to gender factors;

Factors can be considered in designing male movements:

- i. The amplitude of body movements should be big in terms of intensity and interaction;
- ii. Take as themes computer games, martial arts novels, wars and weapons;
- iii. Signify interesting and exciting topic by shaking or nudging the other party;
- iv. Show the close relationship with new male friends by shaking hands or hugging;

Factors can be considered in designing female movements:

- i. Show more head or hand movements and nestling to each other is more common among the body movements;
- ii. Complement the outlooks of the other party (e.g. hair, skin or figure) by caressing hair, face or body parts;
- iii. Show friendship by holding the other party in the hand when meeting new friends.

Besides differences in body movements between male and female, mobile QQ of body interactive communication can take into consideration allowing more body touching for the same gender and meanwhile set more restrictions to body interactive communication between different genders.

- Further develop sensory communication (e.g. touching, auditory) by integrating some physical expressions such as music, vibration, temperature or air-blowing

4 Prospects and Limitations of Body Communication Interaction of Mobile IM

The mobile IM with body communication interaction integrated can compensates the deficiency of one-way traditional input mode, that is, text input with facial

expressions. It plays an important role in emotional communication. Especially when people are in motion or in other situations which are inconvenient for writing, such as on bus, or hoping to express their complicated emotions in a quick way, they can communicate with each other via body communication interaction of mobile IM.

Besides, it will be more convenient to use new mobile IM to express richer meanings for those who are less literate, more emotional, or those who seldom use computer or have difficulty communicating in language (e.g. one party of the communication know little about the language of the other party), or those who are not good at thinking in images.

We, however, also notice that there have been ever-increasing potential problems with body communication interaction concerning network ethics, privacy protection and cultural-related offence. Undue use of violent body movements will have negative effects on communication. And too many icons will be a strain on users' memory because it is difficult to seek icons on small mobile phone screen and the difficulty in communicating will increase logging-on time and hence increase the cost.

Furthermore, there are big differences in understanding body language among people from different cultures. Once the mobile IM with the function of body communication interaction is launched in the market, it will be easy to attract consumers with its novelty and fun operation, but when their passion for the new stuff has gone, then how body communication interaction, an unnecessary auxiliary function, can retain customers for life is a question that needs in-depth study.

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