

# Studies of Black “●” Prompter Communication System

Li Jen Chen<sup>‡</sup> Jun Ohya<sup>‡</sup> Yukio Tokunaga<sup>†</sup> Shunichi Yonemura<sup>††</sup>

GITI, Waseda University<sup>‡</sup>

Department of Information Science and Engineering, Shibaura Institute of Technology<sup>†</sup> NTT lab<sup>††</sup>

## 1. Introduction

In the past few years, research has been conducted into human communications and a communication system was developed using conversation prompters.

In this paper, the previously developed prompter system is reevaluated with several new experiments being conducted to test specific aspects of the current system. Other experiments have also been conducted without the use of prompters in order to make a comparison of the differences between the two systems. From the results, it was discovered that conversations conducted using prompter system expressed and transmitted a greater amount of information and emotion than conversations without the prompter. It was also discovered that prompter based conversations are able to soften the potentially direct and sharp meanings of the what was written, but at the same time are able to emphasize a particular emotion that the writer wishes to express.

## 2. Basics of Conversation Flows

Basic human conversation patterns have been analyzed with several key patterns that occur during communication being identified. The key patterns and their flows are shown in Fig. 1 below.

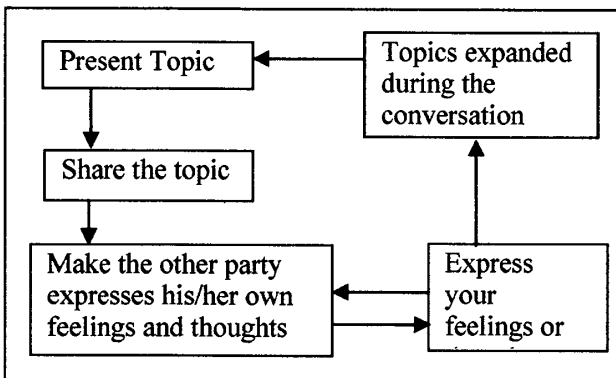


Fig. 1 The conversation flowchart

It was observed that people usually start a conversation by presenting a topic and sharing it with the other parties in the conversation. The starter will try to keep the conversation going by making the other parties express or share their experiences, feelings or thoughts. The starter will then follow this by sharing his or her

experiences or thoughts with the other parties in order to maintain the conversation. After the topic has been fully expanded during the conversation, it returns to the topic presentation stage and follows the processes again.

It is believed that the prompter system can provide additional support to the first stage of the conversation, presenting the topic, and to the last stage, topic expansion, by randomly supply prompter images during the conversation. It can also aid in the performance of the third and fourth stages by encouraging the exchange of messages stimulated by the characters and images presented by the system. In addition, the position of the characters and images can also help with emphasis of emotions and feelings.

In this way, the prompter system allows users to express their words or feelings ambiguously, rather than directly, and allows users to express their messages without characters or words, thereby fulfilling the emotional nuances that characters or words cannot support.

## 3. The “●” Prompter Conversation System

The prompter communication system was designed to promote communication using the black “●” prompter. The system was created using a combination of both images and characters, and through a process of interpreting the resultant images, those involved in the experiment not only receive and accept the conversation, but also participate in the conversation. The biggest advantage of this system is the reduction of constraints during the conversation. An outline of the prompter communication system is shown in Fig. 2 below.

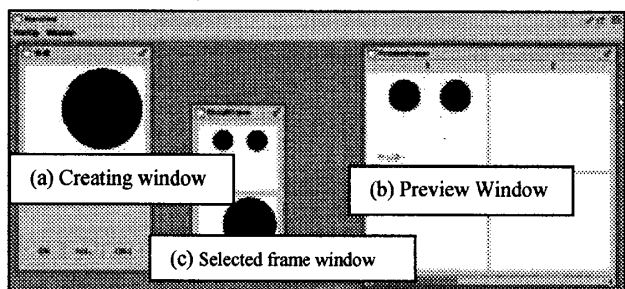


Fig. 2 Prompter Communication system

## 4. Experimental results and discussion

The experiments were conducted with ten students divided into two groups, named A and B, using two laptops located in two different rooms connected via a wireless LAN. Each student completed ten frame sets and received ten frame sets from the instructor, meaning

<sup>‡</sup> GITI, Waseda University

<sup>†</sup> Department of Information Science and Engineering, Shibaura Institute of Technology

<sup>††</sup> NTT lab

that twenty frame sets were conducted in each experiment. Group A conducted the experiment using the prompter system, shown in Fig 2 above. Group B conducted the experiment without using the prompter system, as shown below in Fig 3.

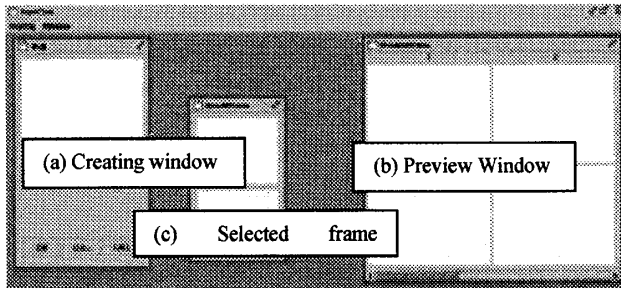


Fig. 3 Blank prompter Communication system

The function and usage between the two systems was exactly the same, with the only difference being whether the prompter was present in the message frame or not. During the experiments, both group A and B were requested to fill in questionnaires when receiving messages from the instructor, meaning that 10 questionnaires per experiment were collected detailing the participant's feelings regarding an individual message. The questions on the questionnaire were ranked into 5 level, allowing participants to select the level of their emotional feelings toward the instructor's message. Both groups were given the messages under the same scenarios, and the instructor gave the same message to the individual participants of each group. Although group B, who performed the experiment without using the prompter, seems no different to other chat systems, the functions of the system remain the same as when including prompters, allowing participants to freely drag and drop characters or symbols on the frame when creating a message.

During these experiments was first time that the prompter system had been used by almost all participants. The instructions into the use of the system had been explained to the participants and practiced for exactly the amount of same of time in order to prevent differences in the overall results.

The experiment data shown that group A has generally higher scores in overall performance, especially regarding the expression and transmission of information other than words or characters, the expression of self-emotion, and the stimulus of creative thinking. On the other hand, group B, the group not using the prompter, had generally higher scores in efficiency, but feel impatient while talking, although show a level of satisfaction while using the system. This can be explained by the fact that participants tend to spend a lot of time creating a message, which is rather time consuming and also brings about the low scores in the satisfaction category.

Table 1 Results relating to usability

| Questions  | With Prompters | Without Prompter |
|--|----------------|------------------|
| Ease of Use  | 3.20           | 3.00             |
| Did you have fun when using the system?            | 4.00           | 4.00             |
| Did you enjoy yourself when you using the system?  | 3.80           | 3.80             |
| Efficiency of the system                           | 2.40           | 2.60             |
| Do you think the system stimulates creativity?     | 4.20           | 3.20             |
| Did you feel it was easy to express your emotions? | 3.20           | 3.20             |
| Did you feel comfortable when using the system?    | 2.60           | 2.60             |
| Do you feel satisfied when using the system?       | 3.20           | 3.40             |

Table 2 Results relating to communication using the prompter and blank prompter system

| Questions  | With Prompters | Without Prompter |
|--|----------------|------------------|
| Easy to make conversation  | 2.60           | 2.80             |
| Can you fully express what you want to say to the other party?       | 3.00           | 3.20             |
| Can you fully perceive what the other party wants to say?            | 3.40           | 3.20             |
| Did you feel and receive information other than and more than words? | 4.40           | 3.40             |
| Did you express information other than written words?                | 4.20           | 3.40             |
| Did you feel satisfaction during the conversation?                   | 3.40           | 3.80             |
| Did you impatient during the conversation                            | 3.40           | 3.00             |

## 5. Conclusion

As shown by the results, it can be seen that the prompter system was able to provide a unique method of communication, no matter whether the participants used the prompters or not. It is believed that the prompter system can enrich communication, not only in the meaning of the message, but also the emotional nuances that the speaker wishes to transmit. It is also believed that although a great many improvements are still needed, the system has shown great potential and strength, which might be a future goal of this communication system.

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