Design for Group Messenger Incorporating Concept of "Three Wise Monkeys"

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Abstract

In recent years, communication on Social Networking Services (SNS) and messenger applications (messenger apps) have been spreading rapidly. In particular, we casually see group chats with number of users in various situations. In Group chats, people often share content that is not necessarily relevant to all of them, and many users tend to be passive. This is undesirable not only in terms of information gathering and sharing, but also in terms of people's daily productivity. The historically famous design of the "Three Wise Monkeys" suggests that it is not good to see, hear, or say something unnecessary. In this paper, we propose a system that enhances the convenience for one-to-many conversations (group chats) by restricting information based on the concept of "Three Wise Monkeys.".

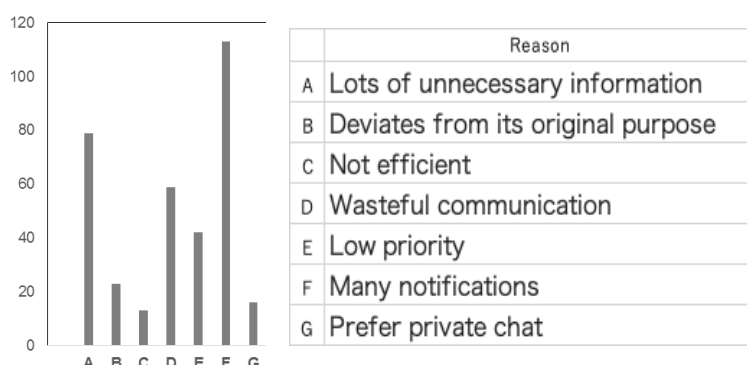**Keywords;** *SNS, Social Media, Information, Smartphone, Media Design.*

I. INTRODUCTION

Social networking services (SNS) have become an essential communication style today. One of the most unique usages to SNS is group chat. Previously, many people used SNS for individual chats instead of exchanging emails. However, nowadays, it has been used as a convenient tool for information sharing by number of users. SNS is often used for business purposes, but on the other hand, there are many non-effective use cases where a volume of unimportant information or needless information is shared.

In a questionnaire survey with 205 general Japanese people that was held in this study, 87.3% of users answered "group chats are convenient," while 76.5% (157) of users answered "I turn off messenger apps' notifications for group chats."It is because they feel that there is a lot of unnecessary information and message exchanges regarding the group chat. Table 1 shows the reason why people turn off the message notifications for the group chats.

58.0% (119) of users had the experience of switching group chats to individual chats because of information that they do not want to let everyone know.

41.9% (86) of users had the experience of creating new chat groups in careful consideration of certain members, who were included in the groups of the time.The usage and system of today's messenger apps/SNS have high convenience, however they have many problems to be solved.

	Reason
A	Lots of unnecessary information
B	Deviates from its original purpose
C	Not efficient
D	Wasteful communication
E	Low priority
F	Many notifications
G	Prefer private chat

Table1. Survey Results: Reason for turning off group chat notifications

II. PURPOSE

Messenger applications/ SNS are replacing with phones all over the world. On the other hand, many users have frustration, which is unique to the messenger applications/SNS and it does not occur upon communication with the phones. For example, group chat has both of public and private aspects. Although it is not an open community, under the message sharing mechanism, it is difficult to judge which chat member (members) is concerned with a certain message. Accordingly, it is not easy for members to determine "who has to reply" and "when to reply" to the shared message. Interpretation is up to the individual users who have grasped the context of the conversation exchanged among the multiple users. This is the difficulty unique to the group chats that does not occur with individual chats. The difficulty generates because of the ambiguous uses of messaging both for public and private purposes.

Therefore, in this paper, we propose a messenger application with a function to switch public and private messaging for group chat.The application incorporates the concept of "Three Monkeys" to suppress complication and ambiguity, and it is prototyped as a helpful messenger application for information collection.

The "Three Wise Monkeys" is a famous proverbial saying that means "see no evil, hear no evil, speak no evil". The phase means "It is better not to see, hear or speak people's fault."The teaching, "Look not at what is contrary to propriety; listen not to what is contrary to propriety; speak not what is contrary to propriety" described by ancient Chinese philosopher Confucius to his disciples is said to be the roots of the three monkeys, but today it is a well-known worldwide moral slogan.

There are designs inspired by three monkeys all over the world.This design, found not only in Asia but also in India and Europe, offers how desirable communication is, as well as a didactic implication.

Fig1 is the most famous art work that represents three monkeys in Japan.

Fig1.Three wise monkeys sculpture in Japan

Through this research, we implement the function inspired by the concept of "three wise monkeys" that "see no evil, hear no evil, and speak no evil" in a messenger application.Specifically, the concept of the three monkeys is interpreted as follows.

1.   see no evil: no seeing unnecessary information

2.   hear no evil: no hearing unnecessary information

3.   speak no evil: no speaking information

The purpose is to increase the productivity by setting the constraints taken from the three wise monkeys as a framework.

III.   PRECEDENT SYSTEM

As a related study, there is a study on "dealing rights to speak" that facilitate decision-making through discussions.Generally, in a meeting place, persons with power, elders, loud talkers, and headline seekers tend to speak relatively long. Hiroyuki Koga et al. proposed a communication mechanism design in which participants can contribute to information-sharing equally by exercising and dealing (exchanging) the rights to speak (allotted time) in turns. It is possible to arbitrarily suppress the willpower of participants who make a large number of remarks and induce the conversation flow to have

18038

a frank and unbiased tendency.However, there is also a problem that the system is inclined to just offer simple speaking opportunities for the same amount of time in rotation because the number of speaking rights deal turned out to be small.

IV. MECHANISM

Regarding modern communication, convenience is rapidly increasing through the systems such as SNS.However, the structure, content, and purpose of our conversations have hardly changed.As a result, in some cases, sophisticated digital tools can generate communication difficulty and reduce communication quality.In many cases, personal relationships are degraded due to "no reply", "late reply" , "strong words", or "being taken differently from original intention.".

In addition, in a group chat that can be both of private and public, a large amount of unnecessary information is posted frivolously by people with tendency of many remarks, and as a result, it makes difficult for participant to put their mind to the group's original purpose and to catch up with necessary information for the swing of the conversation and the context. To solve such problems, we incorporated the concept of the three monkeys.

There have been many studies on communication mechanisms and information propagation models.According to a psychological model for communication, a person appropriately incorporates necessary information through a filter from various information, and conversely deals with unnecessary information as noise.It is said to be one of the most suitable models for the age of too much information. By applying the Three Monkeys System to the filter of this model, information-collection and information-sharing of good quality are enabled.

The following is the image of the communication model that applies the Three Wise Monkeys System.
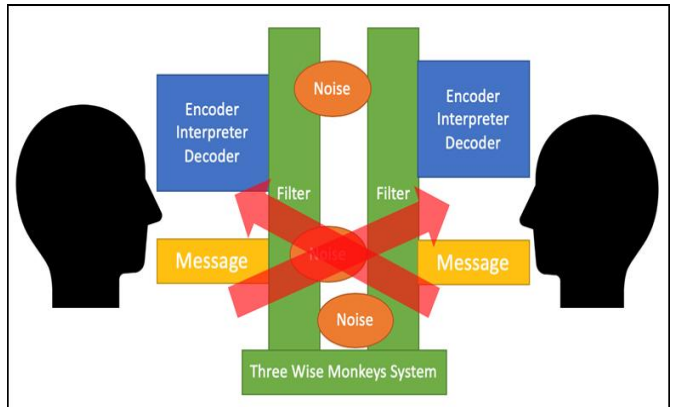
Fig2. Filter communication model using three wise monkeys system

Users can arbitrarily filter unnecessary information on online group chat. By filtering information the system facilitates communication and removes users' burden of switching from group to individual chats and vice versa.

V. PROPOSAL

The application of this research has the following restrictive functions for conversations such as a group chat.

① No seeing mode ："Mizaru"function

If you want to share a message that you do not want to send to a specific person with other multiple chat members, you can mute the message for the specific user.

② No hearing mode ："Kikazaru"function

You can mute a specific user's messages when you do not want to see the messages from the specific user

③ No speaking mode ："Iwazaru"function

If you want to give priority to the messages from the members other than the specific users, you can mute the messages from the specific users

With these restrictions, it is possible to reduce the users' difficulty in the conventional group chat communication.

VI.   DESIGN OF PROTOTYPE

The execution image of the prototype application is shown as below.

Step 1: Start the Three Monkeys system.

Step 2: Select the function (①No seeing mode, ②No hearing mode, ③No speaking mode).

Step 3: Select users to apply the function.

Step 4: Unnecessary information does not show up (or you do not make unnecessary information show up) on the chat screen.

Step 5: If you disable the function, you can also view the all messages, and the convenience of group chat will not be lost.

By tapping the button on the upper right of the screen surrounded by the red circle in Fig3, the selection view of Three Wise Monkeys System pops up(Fig.4).

For the three wise monkeys system, you can select the function to enable and the target users.The chat screen of the application with the three monkeys system differs depending on each user, unlike conventional messenger applications.There are three types of chat screens for the users who enabled the function, the users who were selected by someone as the targets of the function, and the other users.

①   No seeing mode

This is an effective function when you do not want to let someone (only one person) see specific messages in or you do not need to show specific messages. to someone in the group chat.
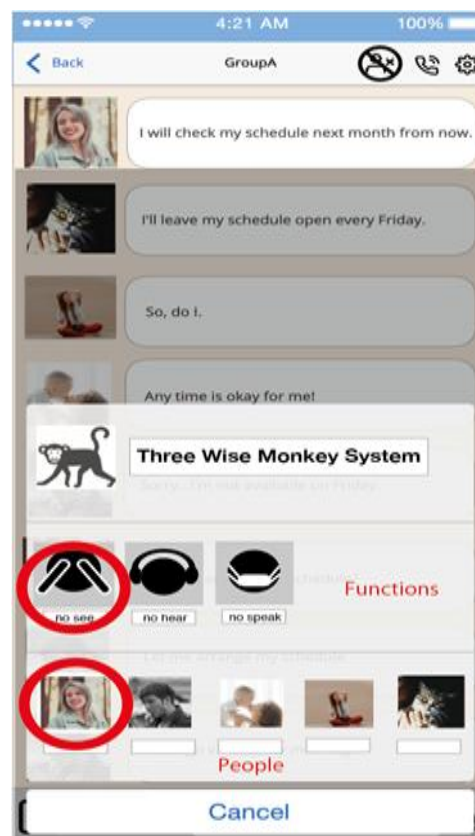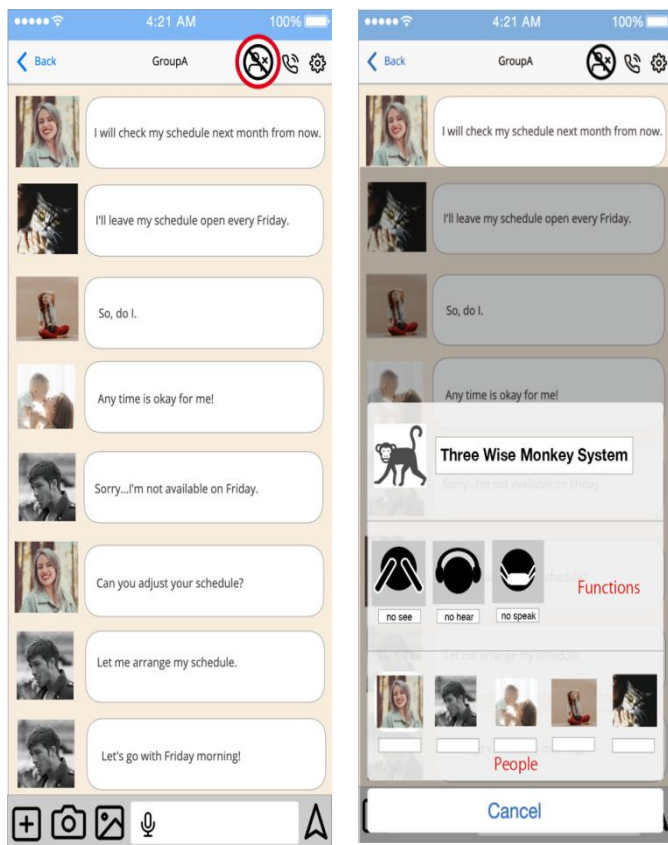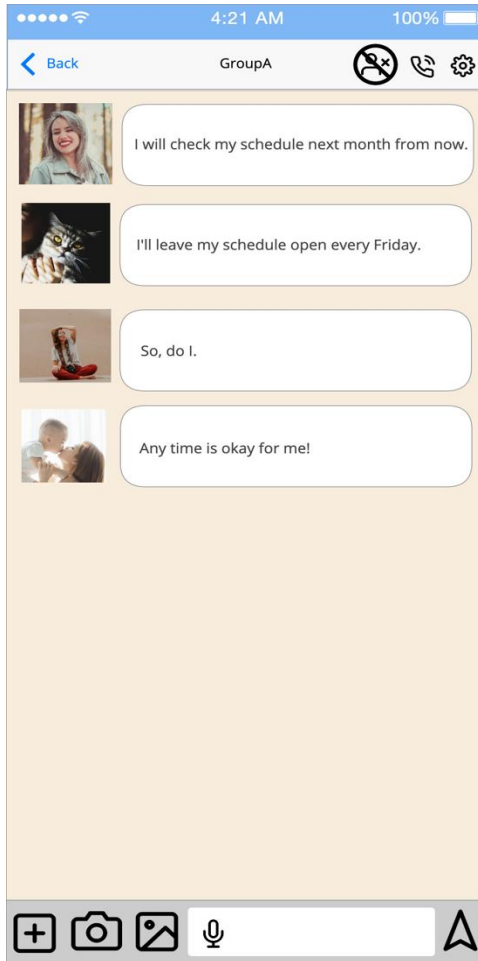

Fig3. Image of group chat screen   Fig4. Image of selection view


Fig5. No seeing mode screen

Fig6. Chat screen(1)

Fig5 shows a case where the second user from the left does not want to show the message only to the user circled in red.Fig.6 is a chat screen for the red-circled user when no seeing mode is enabled in this case. In this example, a message of rather hesitant answer by the user, who is not very sociable is made not to show up in public. This stops her reluctant answer's spillover effect on the other users' answers, and as a result, a consensus can be built smoothly.For example, when gathering participants for meetings, it often happens that one "no" message leads to multiple persons' non-participation, such as a domino falling. No seeing mode is effective to avoid such a negative phenomenon.

② No hearing mode

No hearing mode mutes the messages from the users whom you do not want to hear (Fig.7).Unnecessary

information can be cut for the users whom you have already heard their answers.
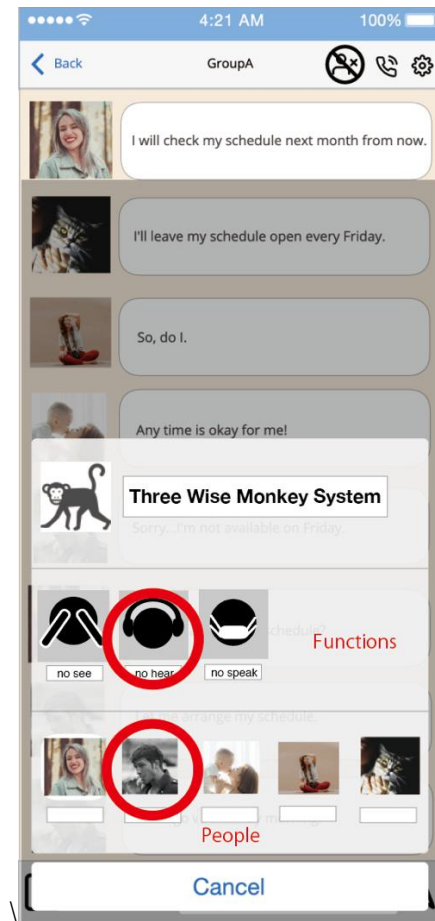

Fig7. No hearing mode screen

For example, for a user whom you have already heard his availability, hearing the conversation for the meeting schedule adjustment between you and the other chat members is unnecessary communication.Also, your asking the same question to check availability to the users who have already announced their non-participation, can be frustrating for each other.

③ No speaking mode

As for No seeing mode or No hearing mode, they are effective functions for some members.In contrast, No Speaking mode is an effective function for a number of people. No Speaking mode is useful when you want to highlight the messages of specific users.For example, when you want to focus on only the male opinions, the messages from the female

18041

users can be noise. This is a helpful function in such cases (Figs. 8 and 9).
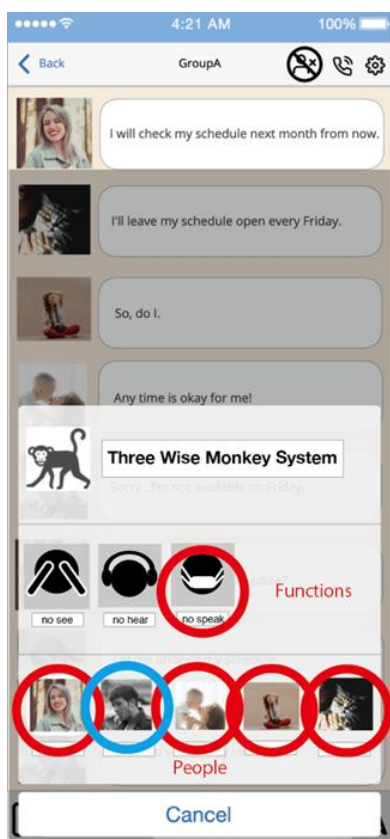
Fig8. No speaking mode screen

Fig9. Chat screen(2)

VII.   CONCLUSION

Through this research, we proposed a mechanism model of a new communication tool and a prototype application from the point of view of the proverb: "see no evil, hear no evil, and speak no evil".The idea of no taking unnecessary information, and the paired idea of not giving wasteful information to others, are different from the idea of just no seeing the information. They are helpful ideas in the age of information overload when it is essential for people to select information .Considering the penetration rate and convenience, it is no exaggeration to say that group chats are microcosms of modern human relationships.We devised the strategy to solve the problems in real communication by developing the Three Wise Monkeys System.Actions such as switching to personal chat or creating another group are necessarily generate extra operations and communication.Simple and concise communication is considered to be an appropriate system that matches the information overload age. As a future task, we will examine if everyday communication can be achieved with the proposed system in community groups that includes only a few members.Current messenger app users belong to many groups.The ultimate goal of this research is to minimize the number of those temporary-use communities and enable people to avoid unnecessary communication.

VIII.   ACKNOWLEDGEMENTS

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