1. Introduction

WeChat is one of the most popular Instant Messengers currently developed by Tencent in Jan. 2011. It is one of the largest standalone messengers by monthly active users. WeChat supports multiple platforms, including Android, iPhone, BlackBerry, Windows and OSX. It provides a rich set of features and international service to more than 200 countries. It is the No.1 Users Satisfactory Software in China.

2. Features

WeChat provides more than 50 features to its users. 11 of the most important and most frequently used features are listed in the below table.

| Features | Description | Action | | |
|--------------|------------------------------|----------------------------------|--|--|
| Add a friend | User adds a new friend into | A. 1.Touch Contacts tab. | | |
| | contacts list: | 2.Touch "Add friend" icons | | |
| | A. By WeChat ID | from right top corner. | | |
| | B. By Phone Contact | 3.Input friend ID in search | | |
| | C. By two-dimension code | bar | | |
| | | 4. Wait for response of | | |
| | | friend. | | |
| | | B. Prerequisite: both friend and | | |
| | | you connect WeChat account to | | |
| | | phone number. | | |
| | | 1. You can see a red bubble | | |
| | | on Recommended Friends. | | |
| | | 2.Touch Recommended | | |
| | | Friends | | |
| | | 3. Touch "add" after your | | |
| | | friend's name. | | |
| | | C.1. Touch Discover Tab | | |
| | | 2.Touch Scan QR Code | | |
| | | 3.Put Camera Fix on your | | |
| | | friends' 2D code | | |
| TextChat | Send a text message to your | 1. Touch Chats Tab | | |
| | friend | 2. Choose a conversation | | |
| | | from list | | |
| | | 3. Touch the empty bar. | | |
| | | 4. Input your message. | | |
| | | 5. Touch "Send" | | |
| Video Chat | Start a video Chat with your | 1. Touch Chats Tab | | |

| | C: 1 | 2 C1 | |
|-------------------------------|---------------------------------|-------------|--------------------------|
| | friend | | ose a conversation |
| | | _ | n list |
| | | | ch "Plus" Icon |
| | | | ose Video Call |
| | | | it for your friend to |
| W. W | C 1 W 1 W | | onse |
| Voice Messages | Send a Voice Message to your | | ch Chats Tab |
| | friend | | ose a conversation |
| | | | n list |
| | | | ch "Voice" Icons from |
| | | | bot corner |
| | | | ss and Hold the "Hold |
| | | | 'alk" Bar and record |
| | | - | r voice. |
| | | | ease the bar and voice |
| | | | sage will be sent out |
| Send a picture | Send a picture in the chat to | | ch Chats Tab |
| | your friend | | oose a conversation |
| | | | n list |
| | | | ch "Plus" Icon |
| | | | ch "Camera" to take a |
| | | | photo or Touch |
| | | | otos" to select one from |
| | | 5. your | |
| Group Chat | Start a group chat involving up | | ch Chats Tab |
| | to 500 friends | | ose a conversation |
| | | | n list |
| | | | ch the "Head" icons on |
| | | _ | t top corner. |
| | | | ch the big "Plus" icon |
| | | | he first row. |
| | | | oose friends from list |
| | | | they will auto included |
| | | in g | roup chat. |
| CI. | | 1 75 | 1.D' |
| Share moments | Share your photos or dairies to | | ch Discover tab |
| | your friends as twitter and | | ose Moments Option |
| | facebook | | ch "Camera" icon on |
| | | | right top corner |
| | | | ose photos or videos |
| | | | n album or take a new |
| | | phot | |
| | | | te down description of |
| | | | moments. |
| W | | | ch "Publish" bar |
| Voice to Text(Only in Chinese | Convert Voice Message to Text | | ch Chats Tab |
| Verision) | Voice Message | | ose a conversation |
| | | | n list |
| | | | ss a voice message for 3 |
| | | | onds. |
| | | 4. Cho | ose "Convert to Text" |

| | | option |
|------------------|---|--|
| Official Account | Add an official Accounts to WeChat | Touch Contacts tab. Touch "Add friend" icons from right top corner. Input Official Account ID in search bar Receive Stories and Videos from Official Account everyday |
| WeChat Payments | Pay money to your friend through WeChat | Prerequisite: You deposit money into your WeChat through banks. 1. Touch "Me" Tab 2. Touch Wallets. 3. Touch "Transfer" icons from list 4. Choose a friend from list. 5. Input amount of money 6. Add a Note to it. 7. Touch Transfer Bar and money will reach their account. |
| Deposit money | Deposit money in WeChat account | Prerequisite: You have a legal debit card whose bank have contract with WeChat. 1. Touch "Me" Tab 2. Touch Wallets. 3. Touch Quick Pay icons 4. Input your card number and password 5. Input the amount of money you want to deposit in your account. |

These features reach every inch of users' daily lives, meet most of their requirements and assist them finish a great number of scenarios in social communications

3. Functionality Analysis

WeChat is designed for social communication and interaction. It is very suitable to use in daily chatting, photo and video sharing, socialization and entertainment, but it is lack of security and other features to support collaboration in workplace. Following is a list of positive and negative points of WeChat.

Positive:

1. User interface is friendly and fits user context. Most users can know how to use it without no extra efforts and instructions.

- 2. A rich set of functions. Users can get almost all they need from WeChat.
- 3. Convenience. WeChat supports many activities in daily lives, including payments, buying tickets, dining in restaurants.[2]
- 4. Account attached on bank account and real-named telephone number. This avoids online frauds efficiently.
- 5. Flexible in all platforms, including Mac, Windows, Androids, IOs and so on.
- 6. Official account satisfies the need of getting new videos, news, jokes, essays and all other kinds of entertainments.[4]

Negative:

- 1. Messages are not safe. There is not any technology of encryption to guarantee the safety of messages. Therefore, it is not suitable for business and workplace.
- 2. WeChat is a social orientated messenger. It is lack of assist and visual tools to help users with cooperation and collaboration in workplace.[2]
- 3. Services not supportive outside China. Most banks outside China do not have a cooperation contract with WeChat, so many convenient features such as wallets, payments and buying tickets not supported.
- 4. There are functions seldom used in WeChat, such as floating bottles, WeChat Shake and Walkie-Talkie. They can be removed from WeChat.
- 5. Lack of a community to deal with fake advertisements and fraud actions in WeChat.[2]

4. User Community Analysis

(Most of the data are from Reference [3])

Ages: 60% os WeChat Users are in the ages between 15 and 29.

Number of Friends: Each WeChat User has 128 WeChat Friends in average.

Emotional: Users aged 30~60 are much more emotional (based on their contents in chat and Shared moments) than users aged 10~30.

Active Time: The peak of user active time period is between 22:00 p.m.~22:30 p.m.

Chatting Contents: Messages related to work in WeChat is below 0.3%

Daily Users: In Sep. 2015, average daily active user of WeChat is 570 million.

Daily Time for Communication: Each day, users of WeChat spend 280 million seconds chatting in WeChat.

Top 3 Features: Text Message, Moments, Wallet.

From the data above we can see most of WeChat users are students are new employees in workplace. The main usage of WeChat is more possible to be social because the peak of communication is around 22:00 p.m. is relax time.

5 MOCA Model of Wechat.

Below I use MOCA model to analysis the property of WeChat.[5]

Synchronicity: WeChat supports both asynchronous and synchronous. Text messages and voice message users can communicate with them at the same time to make it synchronous, or can ignore and delay the response after some time to make it asynchronous.

Physical Distribution: WeChat is different locations. Users will not communicate with WeChat when they are at same location and able to talk face to face.

Scale: 500. WeChat only allow involving maximum of 500 users in a conversation or group chat. **Number of Communities of Practice**: N. Users are from different backgrounds, use WeChat for different purposes and do the chatting in different groups. Therefore we cannot give a bound for number of communities.

Nascence: Routine. The usage of Wechat is stable. It will not develop in a fast pace.

Planned Performance: WeChat should be defined in short-term planned performance because a conversation about a certain topic will not last for very long in general.

Turnover: In a conversation, it is very common for users to leave the conversation, spend some time on other affairs then come back to rejoin the conversation.

6. Conclusion

WeChat is a very powerful and popular instant messenger due to its large user group and rich features. It provides incomparable convenience to users and has become an important part of lives of its users, especially Chinese. However, it is designed only for social activities rather than business and workplace collaboration. Our group wants to design and develop an instant messenger for workplace collaboration, so we need to extract combine the strengths with other essential features from other messengers.

Reference:

- [1] Wikipedia contributors. WeChat [Internet]. Wikipedia, The Free Encyclopedia; 2015 Dec 3, 21:16 UTC [cited 2015 Dec 4]. Available from:https://en.wikipedia.org/w/index.php?title=WeChat&oldid=693634947.
- [2] Gong, Xiuyuan, Matthew KO Lee, and Zhiying Liu. "Understanding the Effect of Tie Strength on Continuance Intention of Second-Generation Mobile Instant Messaging Services." (2015).
- [3]Onlie Resource. "How much of your life is occupied by WeChat?" [Internet]. Victoria BBS; 2015 Oct. 26, 05:59 UTC [cited 2015 Dec 4]. Available from: http://www.wzaobao.com/p/T34EjS.html
- [4] Wu, Jiaqi. "How WeChat, the Most Popular Social Network in China, Cultivates Wellbeing." (2014).
- [5] Nasreddine, Ziad S., et al. "The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment." *Journal of the American Geriatrics Society* 53.4 (2005): 695-699.