Study on mobile phone as a gateway to online social networks in China

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Abstract

Nowadays, people worldwide are used to using social networks, such as Facebook and Myspace, to keep in touch with their families and communicate with friends, and to discuss topics that they find interesting. Following the technology innovation, the mobile phone as a gateway to online social networks came to our life, and it is more convenient than a PC. The elderly feel lonely that they do not live together with their children. Do they like using a gateway through the social network and help them to find new friends and the interesting group?

In this paper, I will concentrate on how the elderly use computers or mobile phones to access the Internet in China. what kind of interface do the elderly prefer for accessing the Internet? what kind of content are they most interested in? What difficulties do the elderly in China experience when accessing online social networks? I will interview five Chinese retired people. There are some case studies about online social networks which look specially at the elderly in China.

KEYWORDS: elderly, mobile phone, online social network, China

1 Introduction

Currently, the number of Chinese Internet users is rising continuously, but compared with the countries developed in the Internet, China is still low in Internet penetration and has not taken full advantage of network information. However, with the fast growth of the national economy and the constant improvement in network infrastructure, the Penetration rate of the Internet will pick up.[5]

In the coming years, the number of the elderly will grow quickly. The retirement age of female is 50 in China, and male are sixty. In this study, the word elderly refers to the retired people. The government is aware of helping the elderly to avoid a lonely life, which is a topical question. There are some projects which tries to create special social networks for the retired people as well. Most of the senior people have a quite positive attitude towards new technology, though they emphasize the difficulty for learning to use it.[9]

The elderly use mobile phones to call family members and friends. However, they use seldom of other function except calling. The elderly sometimes want to find someone and play with them any time, and thus people who share the same interests, but they also find it difficult because of lack of information exchange, such as, they are not good at searching information and learning to use new software by internet.[9]



Figure 1: Number and growth rate of Internet users in China in 2009, horizontal axis is number (ten thousands), the red line is growth rate. [5]

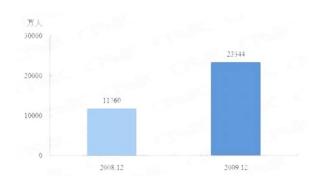


Figure 2: Number of Internet mobile users in China in 2008 and 2009, horizontal axis is number (ten thousands). [5]

Number and growth rate of internet users in China is shown in Figure 1. The number of Internet users is over 0.3 billion. The number of Internet users in China is increasing quickly. Number of Internet mobile phone users is 0.2 billion at the end of 2009 is shown in Figure 2. The increasing rate is high and almost 100 % comparing with 2008. Nowadays, the 3G market is growing quickly. At the same time, the young people are shifting fast from computer to mobile phone as a means of accessing the internet. They would rather use mobile phone than computer, because the former provides better mobility and more personal confidentiality. The elderly does not use the mobile phone as a gateway to access Internet yet, the reason is not that the senior people are not interested in new information technology, rather it is that nobody teaches them. In addition, some other problems they met when they use mobile to access Internet as well.[5]



Figure 3: The mobile phone to access internet expection in coming year, results of a survey. The green part means "not sure", the red part means "no", the blue part means "yes". [7]

Low access speed	55.0 %
High access fee	34.5 %
Large power consumption	29.1%
Small screen	22.2 %
Confusing and unreasonable change	17.3 %
Undesirable content and application	14.2 %
Hard to say	10.0 %
Others	7.9 %

Table 1: Reasons why Chinese people do not use the Internet with a mobile phone. [5]

2 Online social network

2.1 What is online social networks

Online social network is a topology architecture that combines individuals who share common interests or characteristics together to form a social community. Nowadays, with the rapid development of the Internet, online social network services, whose typical examples are Facebook, MySpace and so on, are becoming popular.[6]

There are some OSNs which are mostly used by Chinese people. Because the culture and language are different from other countries, most Chinese are used to using their own OSN, such as "kaixin wang", "QQ space". There will be a detail introduction in coming section.

2.2 Current mobile phone Internet usage in China

As seen in Figure 3, 28 % of the mobile phone users said they would access the Internet by mobile phone in the future; 32.4 % said they would not consider mobile phone access, and the rest 39.6 % were not certain about whether they would access the Internet by mobile phone. Now, Internet users have little understanding of mobile phone access, the capacity of the future 3G market is flexible.[5]

As seen in Table 2, non-mobile Internet users, the main reason of 37.5 % for not accessing the Internet by mobile phone is 'no idea of how to use', Internet users 'little understanding' of mobile access becomes the primary restraining factor for mobile access; 'no need' is the another reason for not accessing the Internet by mobile phone; beside hardware

No idea how to use	37.5 %
No need	20.2 %
Hard to say	15.9 %
No mobile phone	14.8 %
Mobile nonsupport	4.8 %
No knowledge of access fee	4.2 %
High fee	3.0 %
Others	8.4 %

Table 2: Reasons of Chinese Internet users being unhappy to mobile Internet.[5]

age	city	gender	profession
60	Shenyang	female	Chinese language teacher
53	Changsha	female	accountant
61	Shenyang	male	gardener
58	Beijing	male	public official
63	Shanghai	female	doctor

Table 3: The people interviewed for this study

barriers like 'no mobile phone' and 'mobile nonsupport', 'no idea of mobile access' and 'high fee' are also restraining factors for mobile access. China is still a developing country, most people live in countryside. Access Internet by mobile phone is still not so extensive.[5]

As seen in Table 1, Over 50 % of mobile Internet users said "low access speed" is the most important influential factor for mobile access; 34.6 % thought 'access fee is too high'; while 'large power consumption' is the third hindering factor for mobile access. Besides hardware factor (such as small screen) for mobile access, "undesirable content and application" is also a major influential factor for mobile access.[5]

2.3 WAP usage

So far there is no any blog, forum, website for the elderly with WAP form in China. Only few big websites have WAP form, such as QQ, Sina, and so on. Sina.com is the largest Chinese-language infotainment web portal. It is run by SINA Corporation which was founded in 1999. [11]Although there is not much WAP supported in China, people is aware of mobile phone to access Internet which is growing fast.

3 Difficulty of mobile phone usage for the elderly

I have interviewed five Chinese retired people (see Table 3) and questionnaire from senior people forum. The most of the elderly would like to play chess, cards, listen to old music, and talk their old story through the Internet.[1, 4] Some of them have no time to spend on the Internet. They have grandchildren, although they do not live together, they have to accompany with their grandchildren go to school in the morning, and then go home and prepare the lunch. They pick up their grandchildren to their own home and have lunch at noon. They drop their grandchildren off to school again after

lunch. In the evening they maybe do the same thing dropping their grandchildren off. This thing is perhaps only happened in China, for the culture and society is totally different. They are quite busy so that they have no time spend on the other things, but those senior citizen are quite happy to spend the life like that.

Nobody taught the elderly to use mobile phone to access the Internet is main problem, for it is really difficult for them to learn it by the introduction or specification, because they are not used to doing that. Their children do not think their parent have to use mobile phone to access the Internet. Some of the senior people use computer to access the internet, because their children worry about that the elderly feels lonely, they taught their parents how to use the computer.

Payment is also a vector to influence that the elderly do not select mobile phone to access Internet. During last ten years China was developing really fast so that people have a better life now. But the senior people is used to spending simple and unadorned activity of daily living, even though the fee of the mobile phone Internet usage is not high, the elderly think that it is exact payment, there is no need comparing from a computer access to Internet.

Some of them consider that their vision is not good as young. When they use the computer, they still feel the word of screen is small say nothing of the screen of mobile phone. Another reason is that Chinese input is different from other language. Chinese characters are either pictograhs or ideographs. Pinyin means "phonetics" or "spelling sound", which is used to enter Chinese characters on mobile phone and computers. Most of Chinese people who is over sixty years old never learn Pinyin, and almost every city has their own local language in the south of China, and the pronunciation is totally different form Standard Mandarin, those people are also not good at Pinyin even young people.

How to input Chinese "ni hao" means "Hello" in the mobile phone is shown in Figure 4. Firstly "ni" has to be entered, there are a lot of words with same pronunciation. If there is no word needed, then come to next page by pushing the Down button until finding the word needed. Secondly enter "hao" by same way, each step has to be confirmed by pushing "confirm" button, it is quite complexed comparing to enter "Hello".

4 Interface of online social network for the elderly

4.1 Computer as a gateway

A lot of senior people are used to accessing the Internet by computers, and there are many elder people who are starting to learn how to use the computer as well. Although they are not familiar with new online social network, such as Facebook, they are used to using forums and blogs. There is a forum named "Oldkids.cn" [3] is the online social network designed for the elderly in China. This website is developed by Zhang Zhian, a young Chinese who had discovered Chinese senior citizens needs and potential to use the Internet. But the website is still localization in Shanghai, 98 % users come from Shanghai.[8]



Figure 4: Chinese character input from mobile phone snapshot

4.2 Mobile as a gateway

If the elderly use mobile as a gateway access the internet, they have problems with text reading and recognition of smaller icons and buttons as well as handwriting, particularly the input of Chinese characters. They also found their mobile phone offers too many and too complex functions and they were often more confused rather than supported.[9]

4.3 TV as a gateway

The people found many the elderly would like to use TV as a gateway through the social network because they are used to using TV controller. They have used it at least twenty years. There is a test in Sweden, which the elderly uses the TV controller to input daily planning as computer keyboard, this test is very successful, the senior people is happy to use this way. [10]

5 Usage of mobile phone access to internet in China

5.1 Interested content

As seen in Table 4, 77.8 % of mobile usage chat online, 75.4 % use book reading, and 22 % use OSN. Chinese people are

TV	16.5 %
Email	18.4 %
Online Game	19.3 %
OSN,	22.8 %
Online Music,	50.4 %
Online Search,	55.2 %
Reading Books	75.4 %
Online Chatting	77.8 %

Table 4: Use of Internet content in mobile phones in China. [5]

Others	0.7 %
Unemployed	9.9 %
Retired	0.4 %
Farmer,	3.1 %
Self employed,	12.2 %
Industrial worker,	4.9 %
Migrant Worker	2.9 %
Professional	9.9 %
Enterprise not-manager,	15.7 %
Enterprise manager,	2.8 %
Government agency not-manager	4.1 %
Government agency manager	1.0 %
Student	32.3 %

Table 5: Occupation of mobile phone Internet usage in China.[5]

quite interested in online chat, however, MSN and facebook are popular in the world, it still could not occupy the Chinese market, because there is a software called QQ, which integrated instant messaging and Blog and OSN like facebook and a lot of games. [5]

5.2 Usage of mobile phone access to Internet for the elderly

As seen in Table 5, it shows 0.4 % of whole mobile usage in China are retired people. 800 thousands retired people have ever used the mobile phone access to Internet. [5] According to report of China population, there are 160 million retired people who is over sixty at the end of 2009. Because retired age of the female is 50, and male is 60, actually there are more than 200 million retired people in China. Comparing to two numbers, 0.3 % of retired people has ever used mobile phone access to Internet. this number includes they used once or twice under their children's help. Considering that how many the elderly has used OSN, the number will be infinitesimal. [9]

6 New successful online social network in China

6.1 Tencent QQ

Generally referred to as QQ, is the most popular free instant messaging computer program in Mainland China, and currently has over 300 million users. Since its entrance into Chinese households QQ quickly emerged as a modern cultural phenomenon, now being portrayed in popular culture.

QQ space was created, which is kind of social networ, such as facebook. There are a lot of senior people that are interested in game of QQ space and update their own mood and blogs as well.

There are 0.1 billion people online at the same time at 5th of March, 2010. there is no such great success before the QQ has intergrated QQ space. A lot of senior people stated to like staying and enjoying their space. The people can write their daily and configure their friend group in QQ space so that their friend may view what happed on the owner and give the comments. Many kinds of simple web games are integrated in the QQ space.[6] Most of the elderly learn how to use it from their children. Because the elderly is not good at using search engine to get what they are interested. Their children give them a lot of effect for what kind of OSN they may be confident.

6.2 Kaixin wang

All functions are almost same with the facebook. There are a lot of senior people that interested in one of the games 'tou cai' as young people. The young people really like this game. "tou cai" becomes a new modern Chinese word. There are some people talking about it wherever on the bus or in the office. But the number of "kaixin wang" was growing a little bit slowly, because QQ space was born at the beginning of last year. Nobody can instead of the top software QQ. Ten years ago QQ was just a instant messaging software, but now it is developed really well. Not only young people is used to using it but also the elderly had rather use it, because their children prefer to use QQ, they may get help easily and directly.[2]

7 Conclusions

To create social networks for elderly people is a good idea. There will be number of the elderly in the coming years. By the interview and the questionnaire I got my conlusion, if mobile phone as a gateway is used to access the Internet for the elderly, special mobile phone has to be made for the elderly depending on Chinese environment, at least handwriting input has to be integrated. The senior people may fall under their children's influence for Internet usage. If the children pay more attention to their parent's life, they may take some time to teach their parent how to use Internet and introduce the fashion Internet usage. The senior people really would like to learn new technology, but they may meet a lot of difficulty in order to abandonment. As a children young people should be patient to help their parent to run out of the dull life.

References

- [1] Being part of it: European research for an inclusive information society. Technical report, European Commission.

 "http://ec.europa.eu/information_society/activities/einclusion/docs/be_part_of_it.pdf".
- [2] Kaixin.com. http://www.kaixin.com/.
- [3] Oldkids.cn. http://www.oldkids.cn/.
- [4] Oppi.com. http://www.oppi.com/.
- [5] Statistical survey dereport on internet velopment in china. Technical report, Internet Network Information China Center. http://www.cnnic.cn/uploadfiles/pdf/2010/3/15/142705.pdf.
- [6] Tencent qq. http://www.qq.com/.
- [7] Tencent qq. http://tech.qq.com/a/20090716/000360.htm.
- [8] Y. Chen. Usability analysis on online social networks for the elderly. Technical report, Helsinki University of Technology, 2009.
- [9] D. Ebert, X. Chen, Q. Gao, and P.P.Rau. Design of a Social Community Platform for Chinese Eldery. Technical report, Human factors and Ergonomics.
- [10] L. Carlsson. Portal for the elderly and their families. "http://www.kluster-e.se/filer/Dokument/engelsk/_presentation/_2009-05-26.pdf".
- [11] Wikipedia. Sina. http://en.wikipedia.org/wiki/Sina.com.