How to Make Friends in Social Network Service?
A Comparison between Chinese and German

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Abstract. Social network service is very popular all around the world. Global social network service assists Chinese users to have more friends from different countries. Friend-making on social network service is not systematically documented and reported for Chinese. Making friends in social network service and making friends in real life include similar activities such as invitation, knowledge sharing and communication. Almost everything users can do in real life can be done through internet. For example, in social network service E websites such as Facebook users can share a photo with their friends as they do in real life. The difference between making friends in social network service and in real life exits on the way how these activities are done. For example, in real life photo sharing is usually accompanied with a face-to-face talking while in social network service it is mainly the online comments on the photo. Therefore it is interesting to find if Chinese user behavior on social network service is consistent with that in real life.

Thus it is necessary to design social network service with consideration of Chinese usage pattern. For example, as Chinese tend to have more virtual friend social network service websites can recommend. Social network website can use online activity such as "campus star" to require Chinese user to explore other's home page or use "explore" button to have user randomly go to strangers' homepage. More virtual communication style can be added to increase ease of use. For example voice and video message can be applied in social network service in addition to text message.

The result indicates that the Chinese participants have more virtual friends than German participants while German users contact their friends more often in real life. There is no big difference between Chinese and German participants on communicating with their friends and sharing information. The result shed light on future research on Chinese friend-making behavior on social network service and user interface design for Chinese.

Keywords: social network service, cultural difference.

1   Introduction

Currently, social networks are being adopted rapidly by millions of users most of whom are young people with a great number of purposes in mind (Lenhart & Madden, 2007).

There are hundreds of social networks with various technological applications serving to a wide range of interests most of which support the maintenance of pre-existing social relations, however, many others help strangers to connect to others' profiles with shared interests, needs, political views etc. (Boyd & Ellison, 2010). Social networks include various people both as authors as well as readers, nonetheless personalized content, information sharing and collaboration are the socializing dimensions of these tools (Bartlett-Bragg, 2006). As Lenhart and Madden suggested, 55% of teenagers use social networks in their daily lives most of whose purposes are limited to communicating with friends, making new friends and sharing personal information and materials(Lenhart & Madden, 2007).

Social networking websites, such as Facebook and RenRen are member-based Internet communities that allow users to post profile information, such as a username and photograph, and to communicate with others in innovative ways such as sending public or private online messages or sharing photos online. In the spring of 2006, Nielsen//Net Ratings reported that the top 10 social networking sites in the U.S. grew in number of users from 46.8 million to 68.8 million during the previous year (Nielsen, 2006). Nowadays Facebook has 630 million daily visitors. Started 15 years ago and now it's ranked second based on daily view (Wolfram|Alpha, 2011). Social networking websites reveal important information about how adolescents and young adults are interacting with one another in the information age.

Social Networking Sites (SNSs) such as Facebook are one of the latest examples of communications technologies. Millions of contemporary young adults use social networking sites. However, little is known about how much, why, and how they use these sites. The purpose of this study was to provide descriptive information about the use of social networking sites by both Chinese and German SNS users.

Social networking sites persuade millions of users each day to adopt specific behaviors. To understand this phenomenon in the context of persuasive technology, the present study analyzed how persuasion takes place in leading social networking sites from two different countries: Facebook in the Germany and RenRen in china. The present study also compared the two services on some specific tasks. Our analysis reveals the differences and similarities in how Facebook and RenRen are designed to influence users toward the achievement of these tasks. These persuasion styles seem to map generally cultural differences between the Germany and China.

2   Literature Review

In the 'Online Persuasion in Facebook and Mixi: A Cross-Cultural Comparison' B.J. Fogg and Daisuke Iizawa from Stanford analyzed the cultural difference between Facebook and Mixi users(Fogg & Iizawa, 2008). About creating a personal profile page, they found out, that Facebook profile creation is a one long step without any initial trust-building period, whereas Mixi's approach is a two stage model. Kim deals with the comparison of American and Korean college students and the way they use social networks(Kim, Sohn, & Choi, 2011). The result was that the motives for using SNSs were identical: seeking friends, social support, information, entertainment and

convenience. But the patterns of usage were very different. Acquistiand and Gross-deals's research suggest that age and student status are the most significant factors in determining a Facebook membership(Acquisti & Gross, 2006). The study shows that there is a dichotomy between privacy concerns and willingness to share private information. Wilson indicated that the emphasis was set on user interactions and to show that users tend to interact most of the time only with a small group of friends, thus they have basically no interactions with almost 50 % of their other Facebook friends (Wilson, Boe, Sala, Puttaswamy, & Zhao, 2009). As a result it is shown that interaction activity on Facebook is significantly skewed towards a small portion of each user's social links. This is contrary to the general assumption, that all social friendships have the same meaning. Therefore they introduced a so called 'interaction graph' as a more accurate representation of meaningful friendships on social networks. Kwon and Wen's reserach show the extended TAM based on the conventional TAM with the new perceived constructs and external variables to test the social network service (SNS)(Kwon & Wen, 2010). It chooses seven variables including three individual characteristics which are social identity, telepresence, and altruism; three external determinants which are perceived ease of use, perceived usefulness, and perceived encouragement; and the final variable, actual use. In L. Li's 'Case Study on Facebook and Renren Network' the main focus lies on the comparison between Social Network Sites in the United States and China. One of the result shows that Facebook users diversify their sources of information, while Renren network users have only single sources (Li, 2011). Facebook users are mainly young people, but Renren users are aged between 18 and 34. Facebook has also more widely user groups than Renren. The last result is that on Facebook the men-to-women ratio is pretty much equal whereas Renren users are mostly women. This may be due to the fact that the two sites provided different application whose attractiveness is different between men and women.

3   Research Framework

The present study concentrated about three principal arguments, invitation, knowledge sharing and trust. The present study concentrated to the typologies of friends have a typical user in the different SNS. The result about the discussion was interesting because the present study realized that Facebook users usually have more friends who are not friends in the real society. This phenomenon is called cyber-friends and in the last 15 years it is in continuo increase in the USA. So our questions are: do typical Renren user have cyber friends? And if he has not, why does not this phenomenon start in Renren SNS?

Hypothesis1: Facebook users have more net friends who are not friends in the real society, while Renren users have more friends who are already friends in the real world.

The second topic about this study was knowledge sharing. The result was that the goal to use SNS for Renren users is to share emotional things and talk about himself, but for Facebook users that is uneasily. In addition Facebook users share more useless

things than Renren users. So the research questions are: do typical Renren user share more simply emotional things than typical Facebook user? And are the topics shared more serious in Renren than Facebook?

Hypothesis2: Renren users share more emotional things and thinking about the society than Facebook users.

The last topic about this study was trust in the two different SNSs. For Chinese people, one interesting argument was that Renren users usually share their argument in a fixed group but for Facebook users that is not usually true. So our questions are: do Renren users usually share their topic in a fixed group? And do Facebook users share their topic in the same way? If not, why?

Hypothesis3: The topics of Renren users are more restrict to a fixed group.

4   Method

To test the hypotheses more accurately, the present study use the method of experiment to collect data. Besides a small questionnaire survey is included in the experiment.

4.1   Experiment Design

This is a controlled laboratory environment, where distraction or external stimuli is avoided. 8 Facebook users from Germany and 8 Renren users from China with comprehensive network (at least 50 friends) were invited to the experiment. The tasks included adding new friend, grouping new friends and answering some questions about their current friends (in a 7-point Likert scale survey, as shown in Table 1). Total experiment time was last for around 120 seconds.

Table 1. The questionnaire

No.	Question description
1	I go to Facebook/Renren to be politically informed.
2	I go to Facebook/Renren to find some entertainment
3	I go to Facebook/Renren to get serious information about my environment.
4	I go to Facebook/Renren to keep in touch with friends.
5	I go to Facebook/Renren to check all the comments/pictures of my friend.

5   Results and Discussions

In a study, a population is the set of all the elements of interest and a sample is a subset of the population. A primary purpose of statistical inference is to develop estimators and test hypothesis about population parameters using information contained in a sample. Our hypotheses are universal hypotheses and therefore the participants of our experiment and survey have to meet several requirements to ensure a valid scientific

analysis. First each participant selected has to be from the population which includes all the social network users worldwide. This criterion is easily met for our experiment because the present study have Chinese and other international students here in Tsinghua University. A second criterion is that the participants are selected independently. Since Facebook is used throughout the whole world, there can be a lot of differences between Facebook users from different cultural backgrounds. So to be able to compare RenRen users with a specific homogenous representative group of Facebook users the present study choose a group of German users. Besides, in order to meet this criterion the present study had to make an assumption. The assumption is that Chinese students are representative for RenRen users and German Students are representative for one user group of Facebook.

5.1   Analysis of Hypothesis1

The that if the friend is just on the list of the participant's social network, but they meet each other seldom, then The present study consider they are not friends in the real society but net friends. In order to verify our Hypothesis1, The present study should pay attention to the results of all the three tasks. First, Chinese participates add more new friends than German participates;
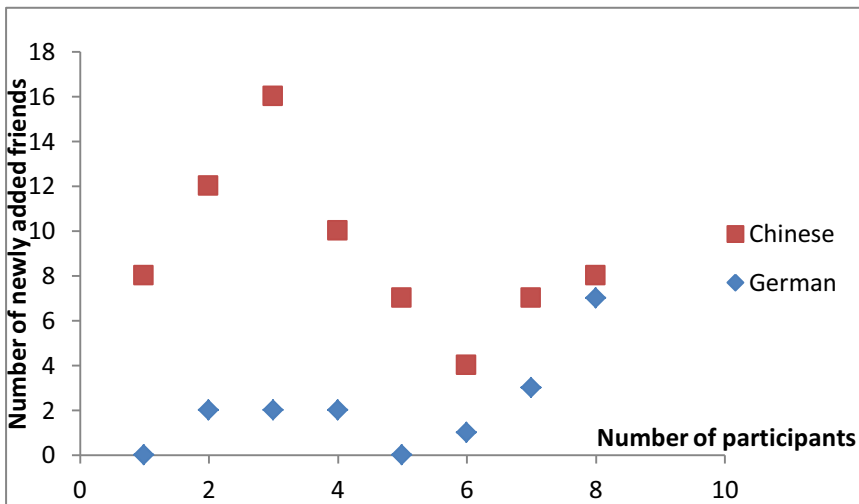

Fig. 1. Number of newly added friends

Second, Chinese participants' newly added friends mainly belong to the university group and they only add friends from the university and hometown, while German participates have friends in 3 different groups and the three groups have almost the same number distribution of new friends. That means German people's social network is more diverse than Chinese people's;
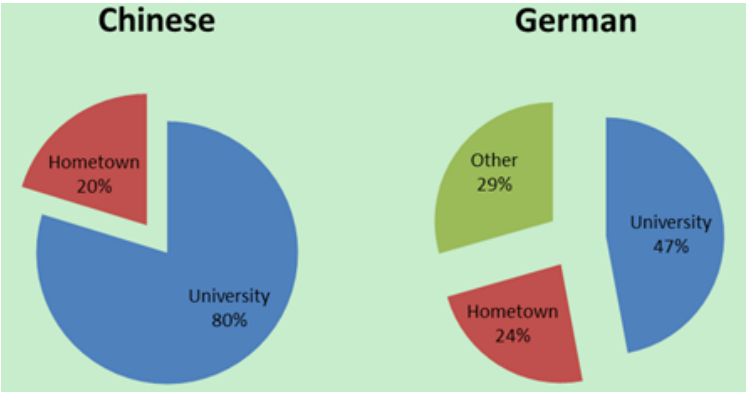
Fig. 2. Diversity of friends for Chinese and German participants

Third, it is shown from the result of task 3 that Chinese participates have more friends on Renren, but the percentage of friends who they can regularly meet in the real life is smaller. The result can be shown in the following figures.
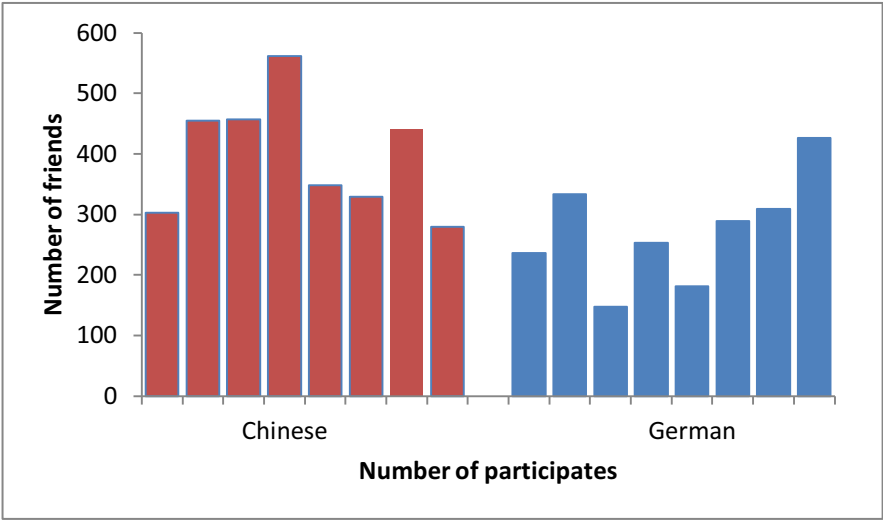
Fig. 3. Total number of friends

These results are basically the other way around than hypothesis 1 states, so it cannot proof our initial hypotheses and on the given information cannot validate hypothesis 1.
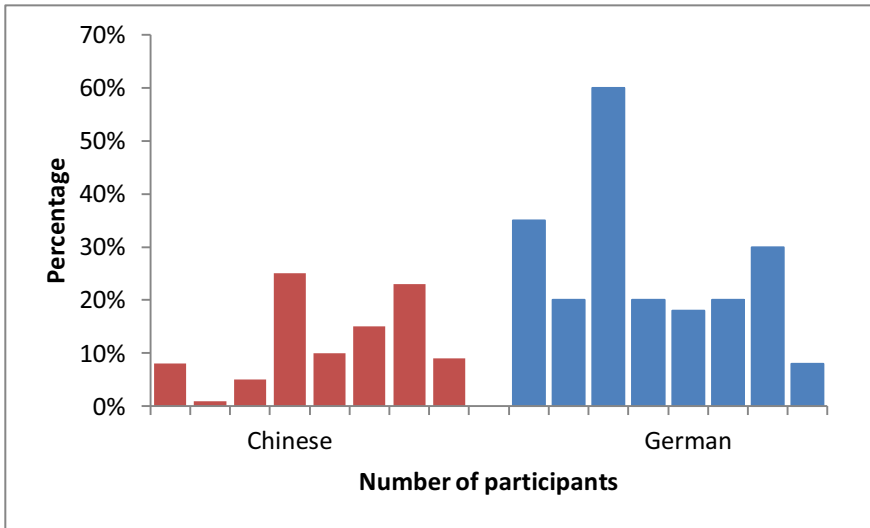
Fig. 4. Percentage of friends regularly meeting

5.2   Analysis of Hypothesis2

To analyze Hypothesis 2, it had to split the hypotheses into two parts: First whether Renren users share more emotional things and second if they share more thoughts about the society. The first part relates to the questions number four and five of our questionnaire. The second part of hypothesis 2 relates to questions number one, two and three of the questionnaire. Mean rating of Chinese participants is 4.625(SD=3.41), and mean rating of German participants is 6.625 (SD=0.268). The t-test result indicate the difference in the answers for all the questions on emotion-related sharing is significantly different between Chinese and German participants (t=2.949, p-value= 0.009).

Here German participants chose a higher value which means that they want to stay more in touch with friends. Statistically it can be proven, that both means (μ) are different. This can be done with the rejection of H(0) with a probability of 95% because the p-value for this question's answers is less than α(0,05).Very peculiar is the fact that the answers of the German for question 4 have a very small variance. This may be due to the fact that all Germans understood this question in the same way, whereas Chinese maybe didn't understand the question in the same way. Since this statement can be seen as a motto of SNS the German participants maybe were influence by the media, which often states that SNS's main purpose is 'to stay in touch with friends'. Maybe the variance in the answers of Chinese people is due to the fact that they are not yet influenced by the media and by publicity concerning SNS. This result maybe can also be explained by the fact, that Facebook is not limited to Germany and that Facebook users can have a lot of international friends. Most people build up a more or less international network of friends in Facebook. RenRen users don't have this possibility, because RenRen is pretty much restricted to China and to Chinese users. So

the fact, 'to stay in touch with friends over physical boundaries of countries', is an issue for Facebook users, but not for RenRen users. This is the only significant difference that could be found during the analysis of the data. Otherwise it cannot be verified, that RenRen users share different things than Facebook users. This counts for emotional topics as well as serious conversation about society and politics. Both SNS users have the same attitude and share the same values, except for the international fact.
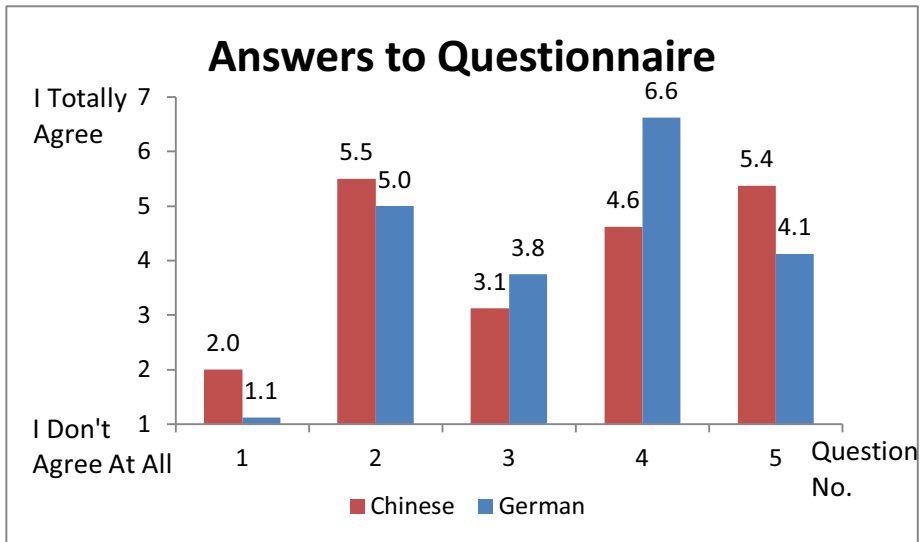

Fig. 5. Answers to Questionnaire

5.3   Analysis of Hypothesis3

To analyze Hypothesis3 the present study used the data about task 2 in the experiment. The experiment gave us how many friends each participant added to each group. For analyzing this data the present study summed for each participant the friends added in all groups. In average, Chinese participants add 9.25 (SD=12.78) friends in one group and German participant add 2.13(SD=4.98) in one group. The t-test result indicates there is a significant different between Chinese and German participants (t-value = 1.782 and p-value = 0.000) We are looking for evidence to conclude that μ (Chinese) is greater than μ (German) so the difference between the two population means μ(c)-μ(g) will be greater than zero. The present study can see that The present study can prove our hypothesis because The present study can reject H(0) with 95% of probability because p-value is less than α(0,05). The p-value is very small because as The present study can see the two mean estimator values are very different.
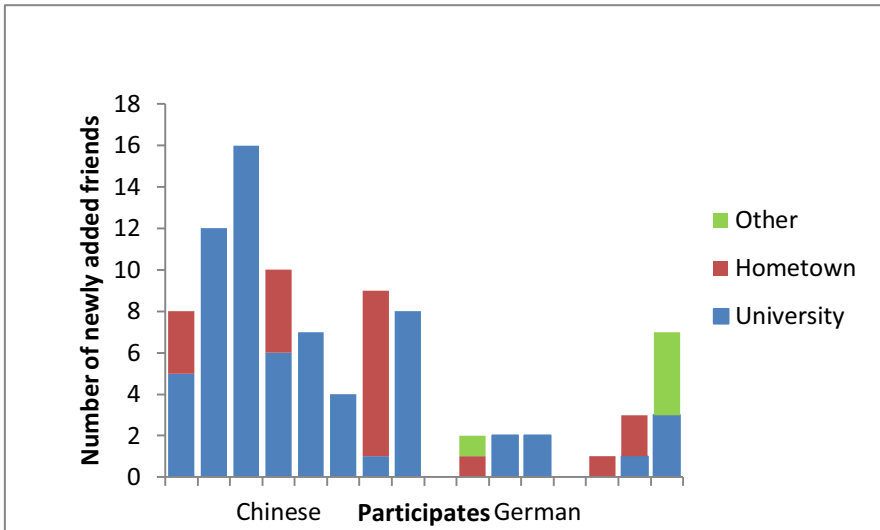
Fig. 6. Group of friends

It is also shown that Renren users added more friends than Facebook users in groups like university and hometown but this is not true for other group and the results for groups like work or hobbies are the same.

6   Conclusions

Although the present study conducted the experiment, questionnaire and following statistical analysis very thoroughly it is almost impossible to make a statistically safe statement, because the number of participants was very scarce. Still it is possible to see some very interesting tendencies and to draw some conclusions from that. To sum up, the present study observed one can say that these Chinese SNS users have more net friends than German SNS users, but German users see their friends more regularly in real life. There is no significant difference between Chinese and German SNS users in terms of communicating with their friends and sharing information. For our research participants it can be seen that the Chinese participants are more restricted to people from university – this being a cultural difference - and to people from China - this would be a structural aspect, because Renren is only in Chinese.

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