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**MULTI-CULTURAL SOCIAL NETWORKING
AND SOCIAL CAPITAL**

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Abstract

Social Networking Sites allow users to manage their homepages to present themselves, and to interact with friends through networked connections. Some of these sites attract people from different cultural backgrounds (e.g. Facebook), providing an opportunity for online multi-cultural social networking to occur. This project aimed to contribute to cross-cultural Computer-Mediated Communication (CMC) research, by investigating this kind of multi-cultural social networking. It focussed upon: 1) the role of cultural differences on users' perception of self-presentation of others; 2) the relationship between cross-cultural social capital and cross-cultural social networking on social networking sites; and 3) unveiling factors affecting users' decisions regarding social networking interactions. The researcher firstly investigated whether cultural differences in online self-presentation through communication styles affect audiences' perception, and whether audiences from different cultural backgrounds have different ways of perceiving others' online self-presentation. Secondly, whether cross-cultural social capital was associated with the intensity of cross-cultural social networking, and through which ways users can obtain the benefits of social capital through social networking interactions. Lastly, explored the factors influencing users' decisions on whether and/or how much effort to place upon each type of social networking.

British and Chinese social networking users were chosen as research participants to represent two different cultural groups. By systematically comparing the difference between them, the results suggest: 1) *Cultural differences in online self-presentation do influence people's perception of others, though it is not the only factor that affects this perception.* British and Chinese audiences tend to focus on different cues when perceiving online self-presentations. 2) *Cross-cultural social capital was positively associated with cross-cultural social networking.* Further interview analysis revealed all kinds of social networking interactions (i.e. observing, communicating, grouping) could help users obtain the benefits of bridging social capital (e.g. acquiring new information and diffusing reciprocity); however only communicating and grouping with strong relationships brought different aspects of the benefit of bonding social capital to British and Chinese users. For instance, communicating and grouping helped Chinese users receive substantive support and access to limited resources; whereas grouping with strong relationships helped British users mobilize solidarity. 3) *Three main factors may influence users' decisions regarding multi-cultural social networking interactions: (a) relationship strength* - although both British and Chinese users tend to communicate mostly with strong relationships, they have differences in observing and grouping with different relationships. British users tend to observe mostly strong relationships and group with all relationships, whereas Chinese users tend to group mostly with strong relationships and observe all relationships; *(b) perceived benefit of social capital* - only bridging social capital benefit affected British users' decision, whereas both bridging and bonding social capital benefits motivated Chinese users; and *(c) users' cultural background.*

Declaration

I, Yifan Jiang, confirm that this work submitted for assessment is my own and is expressed in my own words. Any uses made within it of the works of other authors in any form (e.g. ideas, equations, figures, text, tables, programmes) are properly acknowledged at the point of their use. A full list of the references employed has been included.

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07.02.13

CHAPTER I INTRODUCTION

1.1 Background of This Project

Since the mid-2000s, social networking sites became popular and attracted many users. On social networking sites, registered users can undertake multiple activities on a homepage owned by them. Moreover, they can create a friends list, which enables them to connect to their friends, thereby providing a medium for a sort of interaction with other users through these connections. Users can update their own homepage and see other user's updates. From these updates, they are able to know their friends' recent activities, hence can decide whether or not to make a response or interact.

The popularity of social networking sites not only attracts users, but also attention from researchers. In one stream, researchers have studied behaviours and motivations on social networking sites; in another, they have investigated the nature of social networking sites and how they can help users manage their friend network online (Boyd & Ellison, 2007). Researchers have therefore started to examine whether the interactions on social networking sites can bring benefits to individual users through the management of online friend network; they do so by applying a concept called *social capital* to test the outcomes. The concept of social capital treats an individual's friend network as a resource, thus it represents the value and benefits embedded within or generated from friend networks. A few studies have investigated the relationship between the use of social networking sites and the perceived amount of social capital. Those studies found the use of social networking is positively associated with greater amounts of social capital

(Ellison et al., 2007).

Social networking is not exclusively in-cultural. Some social networking environments may contain users from different cultural backgrounds, for example Facebook, as they are mostly based on real life relationships. Some users do not have any real life friends from different cultures; therefore they may not face a multi-cultural environment on Facebook. However, some users have lived or currently live in a multi-cultural environment; they may therefore have both in-cultural and cross-cultural friends, and have already connected with these friends on Facebook for online social networking. This kind of situation may become more and more frequent, with increasing levels of interactions between users from different cultural backgrounds. It does not only happen in international university campuses, but also can be found in multi-national organizations, or even multi-cultural social groups. It leads to the question of how users from different cultures interact in such a multi-cultural social networking environment.

Research on cross-cultural online communication is not new. We have witnessed the widespread use of online communication technologies worldwide, such as text chatting tools, video conferencing, forums and blogs. Cross-cultural research has been addressing the use of these technologies. For instance, as most of these technologies were rooted in Western cultures, in order to improve their interface to satisfy more users from other cultures, it required attention on understanding the behaviours of users from different cultures. Understanding how users from different cultures interact via these tools can make the management of multi-cultural interactions easier. Cross-cultural online research

has already identified firstly that culture affects the acceptance of technology (i.e. users from different cultures have different preferences of using technology and the way in which they use it); and secondly that culture affects users' behaviours, motivations and communication styles when using technology. Following these previous studies, the researcher thought it would be interesting to extend the cross-cultural research into the area of multi-cultural social networking. For this, the following concepts need to be addressed: (i) social capital, (ii) cultural differences, and (iii) online social networking.

1.2 Key Concepts

Before presenting the research problem (its scope and expected contributions) and the structure of this thesis, this section introduces these key concepts used in this project.

1.2.1 Social Networking

Social networking means undertaking interactions with others via social networking sites. Boyd and Ellison (2007, p.211) defined social networking sites as "*web-based services that allow individuals to 1) conduct a public or semi-public profile within a bounded system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system*". Compared to online communities that provide group-centred services, social networking sites offer individual-centred services. They make users' online social network visible. To build these networks, individual users just need to register onto the sites and get a personal homepage on which they can update their information. On the homepage, there is a friend list. Like other information, users can also update their friend list on the

homepage. If A adds B into A's friend lists, then there will be a link, connecting the B's homepage to A's homepages. A can now view the information on B's homepage, get the B's latest updates, and also interact with B (Ellison et al., 2007).

Social networking sites provide many channels for users to interact. There are five basic features of social networking sites (Boyd & Ellison, 2007):

1. **Profiles:** users are asked to fill out certain information in their profiles about themselves such as personal description and photos;
2. **Friend list:** users are prompted to find others who may have a certain level of relationship with them through the information provided in the profile and can add them into their friend list;
3. **Wall:** users can share things and update information on their own wall;
4. **Comments:** users are provided with a mechanism to leave messages and comments on their friends' walls.
5. **Private messaging:** while messaging on homepages is public (subject to privacy settings), users are also offered functions for private communication such as message exchange and chatting.

Although most social networking sites share these features, they have differences in terms of function and user groups. MySpace was popular among users who wanted to share a common interest, especially among music fans (Hinduja & Patching, 2008). LinkedIn is a business-related social networking site, used for finding jobs and job related information

and opportunities (Skeels & Grudin, 2009). Windows Live Space attracted those users who used it for blog entries. The sites mentioned above encourage a lot of previously unknown users to build new relations online. Beehive is an internal social networking site for employees and staffs within IBM (DiMicco et al., 2008). Facebook was originally popular among college students and then expanded to more user groups (Ellison et al., 2007). The users on these two sites connect mostly with people who they already know or who they may have a certain relationship with.

Social networking sites also differ in their users' cultural group. Some social networking sites are only used among users from one country or one region (e.g. Mixi in Japan, Cyworld in Korea and Renren in China). The user populations of some social networking sites are from different countries. Google Orkut was registered mostly with Indian and Brazilian users (Wan et al., 2008). Friendster was popular among some Asian users such as people from Malaysia and Singapore. Facebook has a population from a wider range of countries, although is mostly popular in Western societies (e.g. UK and U.S.).

1.2.2 An Overview of Facebook

As one of the most popular social networking sites, Facebook has its own features. Facebook has information receiving tools: the News Feed and Live Feed. Launched in September 2006, the News Feed configuration allows users to view activities recently performed by their Facebook friends and the groups and fan pages they like (e.g. someone shares photos, changes status, writes on another person's wall) (Debatin et al., 2009). The minute users go onto Facebook, the latest information about their Facebook

friends is shown on there (unless their Facebook friends do not choose to make public certain information). Live Feed keeps an update of things that have happened in recent hours.

Facebook also has two primary communication platforms. “The Wall” is public, on which users can drop messages to each other, change status, share things and comment on each other’s sharing. “Message” and “Chat” are private, through which users can exchange messages and chat with each other. They are similar to e-mail and instant chat functions (Valenzuela et al., 2009). Apart from the above basic communicational functions, Facebook also provides a “Group” application. It allows users to create groups with certain purposes and to organize group activities. In addition, Facebook has a “Photo Tag” application, which helps users to link users together through the photos that they have taken together (Valenzuela et al., 2009). On Facebook, there are also many applications (e.g. games and polls) and sharing tools (e.g. YouTube links), which can be used, played and shared by users.

These features of Facebook provide multiple channels for users to post information to and get information from friend networks, for users to interact with others, and for users to have fun and share with others. Facebook provides abundant material for researchers to explore user behaviours, motivations and the consequences of using it.

1.2.3 Social Capital

Bourdieu (1997, p.51) defined social capital as *“the aggregate of the actual or potential*

resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition". Bourdieu's definition deems social capital as a resource generated from networked relationships. Coleman (1990, p.302) however defines social capital as "*a variety of entities with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of actors within the structure*". Coleman's definition considers social capital as something generated from a social structure that facilitates individual or collective actions. Putnam (1995, p.67) defines social capital as "*features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit*." His definition is from a more collective perspective focusing on groups, community and society. Nan Lin (2005, p.2) defines social capital as "*resources embedded in one's social networks, resources that can be accessed or mobilized through ties in the networks*". This definition is similar to Bourdieu's (1985), as they both highlight resources and networked relationships. There is no agreed definition of social capital, with different definitions focusing upon different aspects. However, there are three common factors: 1) social capital is closely linked with social networks; 2) norms, trust and reciprocity exist as the features of social capital in social networks; and 3) social capital could bring value, benefit or outcome for those connecting through social networks.

Putnam (2000) defines two types of social capital: ***bonding*** social capital and ***bridging*** social capital. Bonding social capital represents social capital from homogenous groups of people (i.e. among people from similar situations or environments); they may also

have similar life experiences. Bridging social capital however represents social capital from heterogeneous groups of people (i.e. among people from different situations or environments); they may differ from each other to a certain extent. Beugelsdijk and Smulders (2003) followed Putnam's (2000) definition, by distinguishing bridging social capital and bonding social capital from a network point of view. They argue that bonding social capital is mainly derived from dense and close networks that contain similar types of actors, whereas bridging social capital is mainly derived from sparse and open networks that bridge different types of actors.

Social capital represents the values and benefits from the social networks. It is obvious that bonding social capital makes it difficult to provide new information and opportunities to those actors in the network, because it is from close and dense networks among similar types of people. Nevertheless, bonding social capital could offer more interpersonal benefits such as mutual support and limited resource sharing. This is because of the nature of close and dense networks, which store trust and record the exchange of favour (Coleman, 1988). Compared to bonding social capital, it is more difficult to provide such interpersonal benefits from bridging social capital. However, bridging social capital could offer more informational benefits (Burt, 1992, 2000, 2001a, 2001b). This is because the nature of open and sparse network bridges different types of people together, facilitating the transfer and dissemination of information through the networked connections.

When talking about social capital, we cannot ignore interpersonal relationships as social

capital generates from networked interpersonal relationships. There are different types of relationships in social networks. According to Granovetter (1973), relationships can be divided into strong and weak relationships based on the frequency of interactions, and the level of trust and intimacy.

Most strong relationships come from individuals' bonding networks and most weak relationships come from individuals' bridging networks. However, we can neither equate a strong relationship network to a bonding network, nor regard a weak relationship network as a bridging network (Burt, 1992). Take for example, a class whose students go to lectures and seminars together. They have a lot of similar experience and spend time together. To an individual, all classmates could be considered as one bonding network. Among all classmates, this individual may build a lot of strong relationships, though also a few weak relationships. Outside the class, the individual may still have some strong relationships sparsely connected to him/her. In Figure 1.1, where the red and blue lines represent strong and weak relationships respectively, the actors in the circle represent individual A's one bonding network and the rest of the actors form the individual's bridging network. It is clear that the social capital from both bonding and bridging networks contain both strong and weak relationships; although the strong relationship network is more likely to provide bonding social capital and the weak relationship network is more likely to provide bridging social capital. In order to research social capital therefore, the researcher argues that it is necessary to consider both types of network divisions (i.e. Bonding vs. Bridging; Strong vs. Weak).

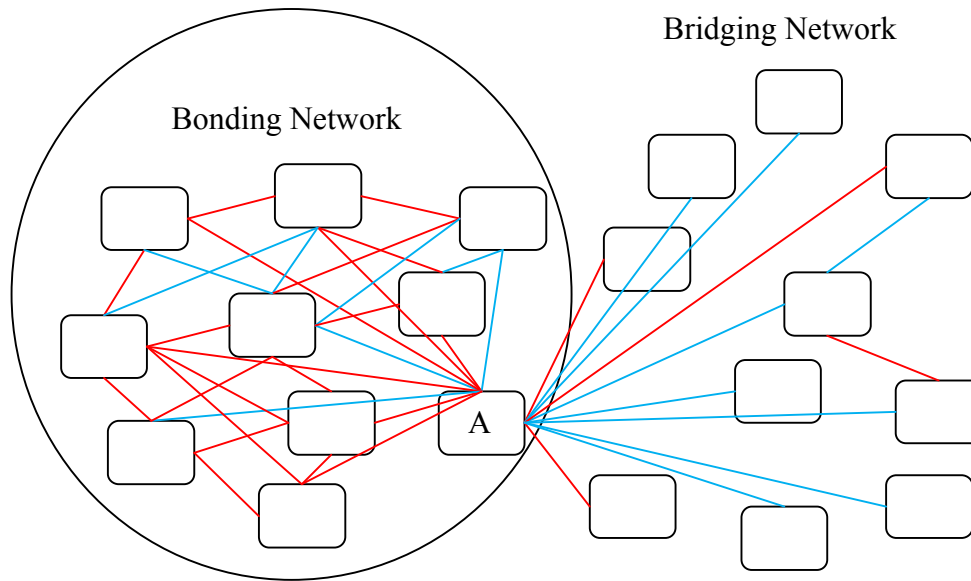


Figure 1.1 Strong and Weak Relationships in Bonding and Bridging Social Networks

1.2.4 Cultural Differences

Cultural differences are the variations in a lot of aspects between people from different areas such as societies, countries and regions. Most cross-cultural studies in online computer-supported communication addressed the issues between people from Western societies (usually considered as West Europe, North America and Australia) and Eastern societies (usually regarded as East Asia); while a lot of other cross-cultural studies focused on South America, East Europe, Africa and other parts of Asia. When researching cross-cultural communication online, literature on real life cultural differences have been used quite often. Hofstede's (1980, 1994) five cultural dimensions (individualism-collectivism, masculinity-femininity, long-term-short-term orientation, uncertainty avoidance, power distance) are widely reviewed. Three dimensions were related to the differences between Western and Eastern cultures (individualism-

collectivism, long-term-short-term orientation, power distance). Hall's (1976) high-context and low-context theory focused on the cultural differences on communication styles between Western and Eastern cultures. Markus and Kitayama's (1991) interdependent and independent self-construal theory focused on how people from Western and Eastern cultures perceive themselves and their relationship with others. People from Western cultures tend to be more independent with others, whereas people from Eastern cultures tend to be more interdependent with others. These cultural theories provide a theoretical basis and comparisons for the cultural differences found in online cross-cultural communication research.

1.3 Research Scope

Current cross-cultural computer-mediated communication research focuses on two main streams: 1) comparing whether people use the same or similar interaction tools in different context; for example, how Chinese, Brazilian and Russian use online tools for information sharing and knowledge transfer (Ardichvili et al., 2006); and 2) comparing how people use the same interaction tool in the same environment; for example, how American and Chinese university students from the same university use chatting tools to communicate (Wang et al., 2009). This project followed the second main stream of cross-cultural computer-mediated communication research, studying how British and Chinese university students use social networking sites in a multi-cultural environment. It is obvious that systematically comparing British and Chinese would therefore be the key line of this project.

Another key point of this project is what kind of cultures it is concerned with. There are a number of cultural divisions, such as regional culture (e.g. Western and Eastern), national culture (e.g. British and Chinese), area culture (e.g. urban and rural) and organizational culture. Having considered that British and Chinese are representative of Western and Eastern cultures, the researcher decided to consider three sub-cultures: Western, Eastern and other cultures in such a multi-cultural environment. Based on this division, the researcher can clearly define in-cultural and cross-cultural relationships. People from the same cultural background (not national background) are considered as in-cultural relationships and people from a different cultural background are regarded as cross-cultural relationships.

This project mainly compared British and Chinese social networking sites users who are from two cultural groups in the following aspects: 1) the role of cultural differences in their perception of others' self-presentation; 2) the relationship between social networking and social capital on social network sites; and 3) their decisions making regarding multi-cultural social networking interactions. The first aspect was very important, as it was a starting point of this project. From assessing the role of cultural differences in people's perception, the researcher was able to understand the effectiveness of multi-cultural social networking and whether people are sensitive to cultural differences; in other words, whether people really distinguish in-cultural and cross-cultural relationships. If cultural differences did not matter, then multi-cultural social networking should not be considered as a specific networking environment to be researched. The second aspect focused on the outcomes of cross-cultural social

networking, through the assessment of social capital. Moreover, it examined the ways through which users can get the benefit of social capital. The third aspect paid attention to the factors influencing users' decisions on whether and/or how much effort to place upon each type of social networking.

Having considered these aspects, this project should contribute to the research in the following ways:

- 1) To identify the role of cultural differences in influencing people's perception of other people in multi-cultural social networking;
- 2) To examine the relationship between cross-cultural social networking and social capital;
- 3) To explore the factors affecting users' decisions regarding their social networking interactions.

The findings were also expected to be useful for interactive system designers in their understanding of user preferences, for multi-cultural social networking users to understand the environment, and for multi-cultural companies to help their staff build multi-cultural social networks and hence benefit their company. Apart from these implications, the researcher also considered the methodological contribution. This project applied experiment, survey and interview methods for collecting and analyzing data for different parts of the project, thus it tested the possibility of using these methods in different levels of studies.

1.4 Preview of Subsequent Chapters

Figure 1.2 presents a graphical overview of the structure of the thesis. A more detailed outline of thesis structure is presented below.

Chapter 2 critically reviews the extant literature, by examining three research areas. Firstly, the research ranging from social capital (e.g. differences between bridging and bonding social capital) to online social capital (e.g. why online social capital was researched and how researchers studied online social capital); secondly, the cross-cultural research for both offline and online contexts; and thirdly, the previous research on social networking sites are summarized. Apart from reviewing the existing theories and findings, and the methods previous research have applied, the literature review has also identified gaps that this project wishes to contribute to: (i) the lack of cross-cultural research on social networking sites and (ii) the lack of cross-cultural online social capital research.

Chapter 3 discusses the methodology of this project. Firstly, the researcher introduces philosophical views such as positivism and naturalistic and drawn comparisons between them. This is followed by the researcher's decision to adopt a pragmatic philosophical position. The second part focuses on the research strategy. Following the literature review, especially the review on social networking sites research, the researcher designed the projects with three levels of studies. The methods chosen for different studies were different, thus in the methodology chapter, the researcher discusses the reasons and considerations for choosing the data collection and data analysis methods. More details are given in the following chapters.

Chapters 4, 5 and 6 report the three levels of studies separately. Each study focused on an aspect mentioned in the research scope section. To illustrate, chapter 4 talks about the role of cultural differences in people's perception of others; chapter 5 presents the relationships between cross-cultural social networking and social capital; and chapter 6 describes the factors affect multi-cultural social networking users' decision. The order of chapters 4, 5 and 6 reflect the consequence of the project process. In each chapter, there will be a short introduction to remind the reader about the background of the study, including some further literature review. Research methods are then presented in more detail. Findings are presented afterwards and discussed before drawing temporary conclusions.

Chapter 7 proposes a general conclusion by reviewing all the previous chapters. This chapter starts from a review of the research objectives. Results are then summarised in accordance with the research objectives. The researcher also discusses the results with respect to their confidence and importance. Possible contributions, implications and future research are discussed and suggested after acknowledging the limitations of this project.

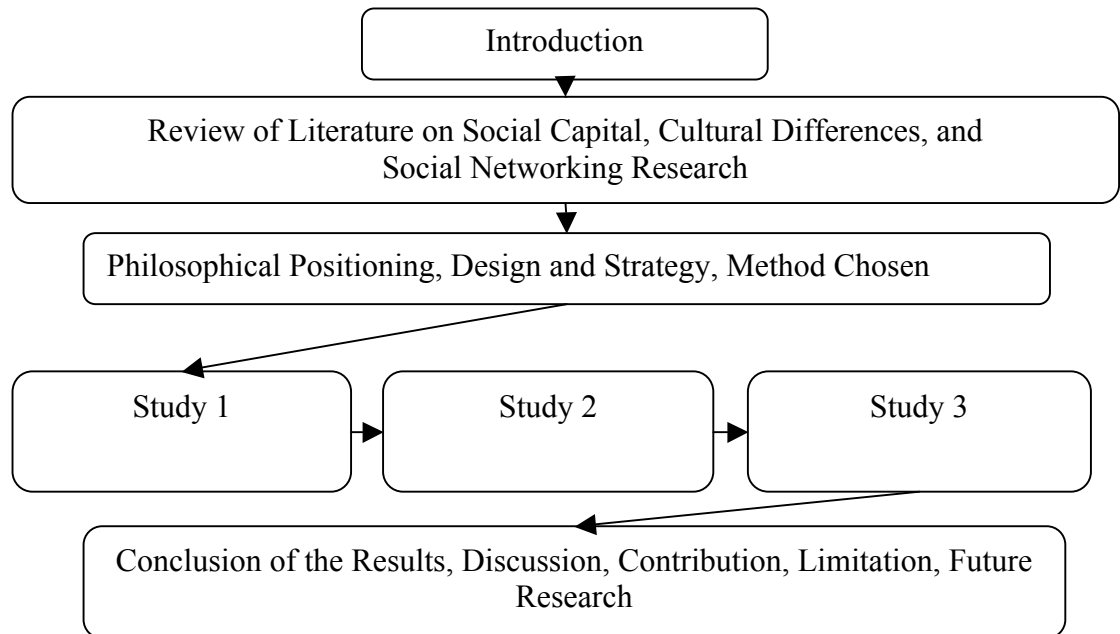


Figure 1.2 Thesis Structure

1.5 Summary

Chapter 1, as the introductory section, presented the background of the project, reflecting the motivations of the project and the research problems. Some definitions such as social networking sites, social capital and cultural differences were given in order to give the readers clear understanding of the key concepts of this thesis. Following this, the research scope of this project and what aspects are focused on were presented. Possible contributions are shortly previewed. Chapter 2 will present the literature review, in light of the 3 main aspects chapter 1 highlighted.

CHAPTER II LITERATURE REVIEW

2.1 Introduction

This project aimed to research multi-cultural social networking through three aspects identified through the initial literature review: (1) the role of cultural differences in people's perception of others; (2) the relationship between social capital and social networking in multi-cultural social networking; and (3) factors affecting users' decision regarding social networking interactions. The researcher further reviewed literature on social capital, cultural differences, and social networking. For social capital and cultural differences, the researcher reviewed the research regarding these two concepts in real life, and then moved to the related literature for these two concepts online (i.e. computer mediated communication research). For the social networking literature, the researcher reviewed three streams of research on social networking sites covering self-presentation, social capital, and social networking behaviours and motivations.

In the review of real life social capital literature, the concepts of bridging and bonding social capital are discussed in more detail, with the characteristics of social capital such as trust, norms and mutual benefits also reviewed. The debate concerning the association between interpersonal relationships and social capital is presented. In order to understand social capital, it is important to understand its characteristics, network view and connection to different types of interpersonal relationship.

In the review of cultural differences, the theories and their applications for Western and

Eastern cultures are compared. It illustrates how online cross-cultural studies researched cultural differences, and how these differences are linked with previous cultural theories. These cultural differences could help the researcher to build assumptions, as well as compare the results from this project with previous cross-cultural studies. In the review of studies on social networking sites, the researcher was able to identify the points he should focus on following previous research.

2.2 Social Capital

2.2.1 Characteristics of Social Capital and Research on Collective Social Capital

The first few studies of social capital mainly focus upon the characteristics of social capital. According to Putnam (2000), apart from networked relationships, the characteristics of social capital should include interpersonal interaction, trust, social norms and reciprocity (mutual support and exchange of benefits).

Portes (1998) gave an example of how these elements act within social capital. Everyone has a certain amount of resources and is interested in some of the resources kept by others; they can therefore use their own resources to help each other or exchange resources (Coleman, 1988). If A does something for B and expects B to do something for A in the future, A holds a virtual cheque over B. If B does something for A in the future, they exchange the benefit. The trust between them may be built up through these interactions. If B fails to do something which A expects, then B will lose the trust of A. Social norm is built up through these interactions and maintains the reliability of reciprocity and mutual benefits.

Burt (1992) further highlighted the importance of interaction (effort), stating the level of social capital one can get depends upon the actor's motivation and ability. Some people interact more often with others and do better with interpersonal relationships; this enables them generate greater amounts of social capital, hence helping them to connect better. This is similar to human capital, where someone who invests more in learning can make themselves more knowledgeable or more skilled than others (Coleman, 1988).

According to Coleman (1988), social capital can be possessed and managed by either a collective or individual actors. For example, social capital in a country may represent how well the citizens interact with each other; or in a company it may represent how well the company is connected within the business network. Individual social capital may thus represent how well this individual manages their friend network. Research on social capital addressed this issue on all levels.

Putnam (2000) studied national social capital in U.S. by observing the civic engagement amongst citizens and measuring it through three characteristics of social capital: (1) the interactions of people involved in local communities; (2) their feelings of belonging to communities; and (3) their trust of others. He found people were gradually more reluctant to join communities or get involved in other collective activities over the past three decades. Moreover, people reported that they were less likely to trust others. This phenomenon made him worry about the decline of social capital in the U.S. because of the decreasing amount of civic engagement and levels of trust amongst citizens. Putnam et al., (1993) in 1993 had previously reported in his study in Italy, where he examined

social capital using similar measurements among different regions, that the regions where people interacted more often in their communities produced a higher-level of trust with others. According to him, trust and interactions are associated, and could both be factors that can assess the level of social capital for a large group (e.g. nation, region, community).

Tsai and Ghoshal's (1998) study shared this view through their research on social capital within organizations, stating three factors of social capital were present in the business environment: structural (i.e. connections), cognitive (i.e. shared understanding) and relational (i.e. trust). They studied how different units within a multi-national company managed these factors to build social capital within the company, and how social capital brought benefits to the units. They found that connecting more to other units and building a higher level of common understanding were both associated with higher levels of trust with other units. Moreover, a higher level of trust led to better resource exchange between the tested units and other units within the organization. Their study therefore demonstrated that these factors - connections, shared cognition and trust - could help a group build social capital within the networks it was embedded in, and how social capital could bring benefits to the group.

2.2.2 Network Perspective of Social Capital and Research on Individual Social Capital

From the above literature, it could be seen that social capital studies at a collective level (e.g. national, community) assessed social capital mainly through its characteristics (e.g.

the frequency of interactions and the level of trust). However, previous studies on individual social capital are taken from a different perspective: bridging and bonding social capital. These studies did not ignore the social capital's characteristics as the concept of bridging and bonding social capital considers interactions and trust. Furthermore, it is good for analyzing individual social capital as it divides an individual's social network based on different attributes.

After Putnam (2000) defined bridging and bonding social capital as being among heterogeneous and homogenous groups of people, other researchers started to discuss the advantages and disadvantages of building bridging (Granovetter, 1973; Baker, 1990; Burt, 1992; Portes, 1998; Knoke, 1999) and bonding social capital (Coleman, 1990; Portes & Sensenbrenner, 1993; Putnam, 1995; Brehm & Rahn, 1997; Portes, 1998) through the characteristics of bridging and bonding networks.

An individual may have two types of social networks within their friend network. Bonding networks tend to be dense and close (e.g. classmates from one class). Individuals are usually tightly connected with one another, and there is a clear boundary between the outside and inside of the network (Coleman, 1988). It is good for actors inside the bonding network to share limited resources that are only available and accessible for network members, plus it is also good for effective communication and trust building. However, closed networks limit the information flow and resource exchange between actors inside and outside the network (Portes, 1998). Conversely, bridging networks (e.g. someone who was met socially) are more likely to be open and

sparse. Unlike the limited information channels seen in bonding networks, actors in a bridging network are less likely to have redundant connections therefore actors can easily obtain non-redundant information and take advantage of new opportunities. Moreover, this kind of network does not restrict actors' behaviour due to the openness of the network structure (Burt, 1992). For example, someone may find more opportunities to bridge two disconnected actors together, hence broker the information flow and resource exchange between two previous disconnected or weakly connected actors. Burt (1992) called these actors who fill the gaps in a bridging network "structural holes".

Coleman (1988) illustrated how the benefit of social capital can be generated from a bonding network, giving an example of how South Korean radical students use their dense and close networks to facilitate their revolutionary activities. This example demonstrated how they constituted social capital within their bonding network to obtain a high level of solidarity. Another example given by Coleman (1988) was that of a diamond market in Cairo, where traders are closely linked with each other. The closeness of this network enables traders to trust others to borrow their products, and in turn makes them feel obliged to introduce customers to others to support one another's business. In this example, social capital acts as a tool for storing trust and facilitating substantive support and reciprocity in the bonding network, which could be useful for individuals. The third example offered by Coleman (1988) was that of the rotating-credit associations in Southeast Asia. Members of these associations were normally close friends who met frequently. They were asked regularly to send money to a shared fund that could be used by one of the members each time. Without trust, these associations could not exist as

someone who has received the shared fund earlier may run away, leaving other members without their money. In this case, social capital from the bonding network stores trust and facilitates the creation of shared funds.

Research also provided evidence for how the benefit of social capital is derived from bridging networks. Survey data on how people use friend networks to facilitate career development suggested bridging networks were useful for bringing information and opportunities for workers i.e. for those wanting higher occupational achievement (Lin et al., 1981), those wanting to change job more easily (Gabbay, 1996), and those wanting to find a job faster (Granovetter, 1995). One reason is that social capital from bridging networks provides new information and opportunities; the other is that social capital from bridging networks allows users to diffuse reciprocity with a broader range of connections. Burt (1992) and Podolny and Baron (1997) found that managers, who have richer connections within a bridging network with people from other work groups, were more effective in making decisions and disseminating information among groups. These managers also had more power as social capital from a bridging network allowed them to control the information flow in the network. Uzzi (1996, 1997) found companies within bridging networks who exchange information were able to help each company within the network to predict markets trends and future demand. It is also due to social capital of bridging networks that allows companies to get information from more information channels.

From the previous review, it could be seen that bonding social capital mainly provides

substantive support for individuals, allowing them access to limited resources and enabling them to mobilize solidarity. It emphasizes an inward looking perspective. Bridging social capital however enables individuals to diffuse reciprocity with a broader range of people, to receive a wider range of information and to find more opportunities. It stresses a trend of outward looking (Putnam, 2000).

2.2.3 Interpersonal Relationships and Social Capital

Granovetter (1973, p.1361) defined the strength of interpersonal relationships as “*the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie*”. Granovetter thinks bonding social capital mainly come from strong relationships, arguing that if two actors have a strong relationship, it is likely that some parts of their friend network overlap. This supports Newcomb (1961), who commented that if one person has a strong relationship with another, they should expect their perception to be congruent with those of their strong relationship friend. Laumann (1968) also suggests that the stronger two people are connected, the more similar they are. Barnes (1969) calculated the density of network by counting the number of relationships of an actor and their friends. He found different parts of an actor’s network have different densities. Some of his friends interacted intensely and frequently, revealing the feature of strong relationships. The rest of his friends were quite sparse and separated. This, again, demonstrated that most strong relationships of an actor are closely linked to each other and hence formed a homogenous group or a bonding network, creating bonding social capital.

Granovetter's (1973) second argument was that bridging social capital is mainly derived from weak relationships. The role of bridging is to diffuse information between the direct or indirect contacts of one actor, and the direct or indirect contact of the other. Granovetter (1973) argued that bridging was less likely to exist between two actors who kept a strong relationship, because two actors with strong relationships should have a lot of strong relationships in common. It appears therefore, most bridges are weak relationships. This supports Davis' (1969) argument, where through network analysis, he found that cutting weak relationships reduced the number of opportunities for transmission, than cutting strong relationships. Burt's (1992) perspective of information redundancy and information diffusion also supported this argument. He found the same piece of information is more likely to be shared a number of times within a group of strong relationship friends, thus suggesting strong relationships are less likely to bring new information. Granovetter (1973) also argued that, although most bridges are weak relationships, not all weak relationships are bridges. More specifically, he divided weak relationships into two types - *bridging* weak relationships and *non-bridging* weak relationships - having considered the role of indirect relationships within an actors' network. He argued bridging weak relationships could be useful for linking indirect relationships with the actor who keeps bridging weak relationships. Compared to other weak relationships, bridging weak relationships have a role in enlarging the actor's social networks. This argument was test by Granovetter's (1973) study in which he found workers in New York's suburbs used to get job information from their weak relationship friends, especially some previous-inhabited friends. Their connections with those friends usually were bridged or reactivated by other weak relationship friends. He found strong

relationships with friends and family also provided job information to their participants, however, this information was not new compared to that of weak relationship friends.

Some studies challenged Granovetter's (1973) finding that weak relationships are useful for getting jobs. Ericksen and Yancey (1980) studied a large sample of people living in Philadelphia, and found respondents mostly secured jobs with the help from strong relationships that they defined as relatives and friends, and very rarely with the support of weak relationships that they defined as acquaintances. Comparing their study with Granovetter's, two differences emerged. The first is in the definition of strong and weak relationships. Ericksen and Yancey (1980) classified relatives and friends as strong relationships, whereas Granovetter (1973) differentiated the strength of relationship by intensity and frequency of interaction. The second difference is in the focus. Ericksen and Yancey (1980) focused on the help or support for job finding from others, whereas Granovetter (1973) emphasized the job information provided by others. It is likely that strong relationships could offer more help than weak relationships, while weak relationships could offer more new information channels and opportunities. Moreover, Granovetter (1973) also found strong relationships are important for job findings, but mostly among people who were unemployed in their study, as opposed to those wanting to change jobs. They mainly asked strong relationship friends for help to get their first job, not for new job information.

Another study that contradicts Granovetter's (1973) result is Bian's (1997) survey research in Tianjin City, China. He found participants used strong relationships to find jobs more frequently than weak relationships. Moreover, he found strong relationships

also have a function of bridging previously indirect contacts together for job finding. A comparison between these two studies suggested two differences. As mentioned by Burt (1992), a bridging network has two main roles; that of information transferring and interpersonal influencing. Bian (1997) focused more on interpersonal influencing, provided by strong relationships. If two individuals have the same strong relationship friend, their relationships are likely to be mediated by their mutual strong relationship friend. Granovetter (1973) however paid more attention to information transferring through bridging weak relationships. The second difference is perhaps culture. Bian (1997) also mentioned in his study that Chinese culture stressed the use of strong relationships to exchange favours with one another (the 'Guanxi' relationship). For example, Bian's (1997) study demonstrated how people use strong relationships to get to know other people who were useful for their job hunting. If cultural differences matter, then it leads to another question - do people from different cultural backgrounds manage their relationships and social capital differently?

Nevertheless, it appears therefore not only weak relationships can bridge people together; strong relationships can also take the role of bridging. As Burt (1992) commented, the strength of relationships is not a necessary condition for a relationship being a bridge. Both weak and strong relationships can be a bridge. The association between bonding and bridging social capital, with strong and weak relationships requires further investigation in this project.

2.2.4 Online Social Capital Research

Previous online social capital research mainly focuses upon individual social capital. The researcher believes social capital comes under two categories - general social capital and online social capital. The initial attempt of researching online social capital mostly concentrated upon the effect of the Internet on individuals' general social capital. Three different perspectives emerged from the research: (i) the Internet decreases social capital; (ii) the Internet increases social capital; and (iii) the Internet transforms social capital.

Internet decreases Social Capital. From the first perspective, Kraut et al. (1998) found intense Internet use resulted in people isolating themselves away from their real life friend networks; that is, the more time spent on the Internet, the less time people spent with friends in real life. As a consequence, it may decrease their social capital as their investment decreases. Nie et al. (2002) found Internet use makes people stay at home and reduce the chance of joining a community, hence decreasing their social capital. In Blanchard and Horan's (1998) observation, they found there was not too much overlap between people's online interaction and offline network. The effort spent with people online did not contribute to their social capital offline.

Internet increases Social Capital. From the second perspective, Wellman and Quan-Haase (2001) and Quan-Haase et al. (2002) found that the Internet could be used as an alternative way of communication, alongside traditional communication tools such as the telephone. The convenience offered by the Internet provides more chances for people to interact with their family and friends. It increases their opportunities to invest in

friendship and hence increases an individual's social capital. Kiesler and Cummings (2002) also found with more family members and friends joining people's online interactions, the effect of the Internet decreasing social capital disappeared.

Internet transforms Social Capital. Wellman and colleagues also provided the third perspective that the Internet transforms social capital. Their survey study in North America found that the Internet allowed people to develop their online community, either for communicating with local contact (e.g. family and close friends), or for communicating with distant contact (e.g. distant friends, people who share the same interests) (Wellman & Quan-Haase, 2001; Quan-Haase et al., 2002). In response to Putnam's (2000) viewpoint that the reason why social capital in US has been declining in past years, he thought that may be people spent more time at home such as watching TV. Quan-Haase et al. (2002) argued maybe people staying at home did not reduce the time of interacting with friends; instead, they built another form of social capital through their online communities. This new form of social capital could be called online social capital. Quan-Haase et al. (2002) also argued that a reliable measurement for testing online social capital was needed.

One attempt to measure the social capital of online communities was by looking at the characteristics of social capital such as networks, norms and trust. Blanchard (2003) examined the effect of interactions in an online community and its influence on face-to-face communications. Her case study was an online sports community where sports enthusiasts met together. She collected data through observation of the recorded

messages in the community and through undertaking semi-structured interviews with community members. She divided interviewees into three types: *leaders*, who were influential in the community; *participants*, who would post message, but who were not leaders; and *lurkers*, who would read messages but did not post comments. In her analysis of social capital, she mainly focused on networks and trust. She found users with different behaviours created different levels of social capital. “Leaders” actively supported all the other members and had the highest amount of social capital. Some of them also extended their online social capital to offline by establishing offline relationships with other members. “Participants” reported they felt an obligation to help others after they received help from other members. Their social capital was being generated from the mutual support they were receiving. “Lurkers” reported that they were unable to ask someone to solve their specific problems, because they did not interact with other members; however, they did report they benefited from the information shared in the community. They had the least social capital, as it came from just joining and observing the online communities.

Other research examined online social capital from a different perspective of measurement. Rather than measuring social capital within communities, the research measured individual social capital. Williams (2006) developed and validated a scale to measure individuals’ online social capital, based on Putnam’s (2000) criteria for developing the bridging and bonding social capital scale. In bridging social capital, he considered factors such as connecting with a broader range of people, receiving new information, having a view of oneself as part of a broader group, and diffusing reciprocity

with a wider range of people. In bonding social capital however, he considered factors such as receiving emotional support, having access to limited resources and having the ability to mobilize solidarity. Based on these factors, he developed a 10-item scale for bridging social capital and a 10-item scale for bonding social capital.

2.2.5 Short Summary

This section reviewed research on both offline and online social capital. It is clear that when researching collective social capital such as a nation or community, the characteristics of social capital such as trust and interactions are applied. However, when researching individual social capital, bridging and bonding social capital are often used. A scale for bridging and bonding social capital has also been developed and can be used in online social capital research.

In order to research social capital in cross-cultural social networking, the researcher has to define cross-cultural social capital. Cross-cultural social capital is thought to be the social capital generated from an individual's cross-cultural friend network. Having considered the concepts of bridging and bonding social capital, cross-cultural social capital may be mainly bridging social capital as it may bridge new connections, bring new information and resources (e.g. cultural knowledge). However, we cannot ignore the existence of cross-cultural bonding social capital. For example, a Chinese student studying in a class where most classmates are British, the Chinese student may have cross-cultural social capital from his/her bonding network, revealing the features of cross-cultural bonding social capital.

Previous literature has also indicated the importance of interpersonal relationships, interactions, networks, trust and reciprocity in social capital. For example, Granovetter (1973) discussed how strong and weak relationships can contribute to one's bonding and bridging social capital. Coleman (1990) and Burt (2000) discussed how bonding networks and bridging networks generate different types of benefits of social capital. However, people from different cultures may have different perceptions and behaviour when they manage their interpersonal relationships and social networks. These cultural differences may therefore affect their social capital management, or cross-cultural social capital. The next section will expose more about these cultural differences in previous cross-cultural studies.

2.3 Cultural Differences

2.3.1 Individualism and Collectivism

Hofstede (1980, 1984) investigated employee attitudes towards the value of the workplace with more than 100,000 employees. He applied the same attitude survey among employees from IBM subsidiaries based on more than 50 countries and regions, in order to focus on systematic differences in national cultures. Based on the results, he developed four cultural dimensions: individualism-collectivism, power distance, uncertainty avoidance and femininity-masculinity. Hofstede (1991) then extended his research to a wider population including students and airline pilots. He added a new dimension based on a survey study with Chinese employees and managers: long-short term relationships.

Although Hofstede's cultural dimensions were widely used by computer-mediated communication research, the researcher decided not to use all his dimensions in this project. This is because Hofstede's theory was challenged by many studies. Firstly, Hofstede (1980, 1984) calculated the scores of 76 countries on his five dimensions. If the scores of two countries were very different, it was deemed to represent the cultural differences in that dimension were high (cultural distance). However, research found that sometimes cultural distance on Hofstede's dimensions did not represent the real differences between two countries. In other words, culture is also affected by something else such as the history and geography between two countries. For example, Chapman et al.'s (2008) research mentioned, as suggested by Hofstede's dimensions, that British and German cultures are similar. It would therefore be expected that British and German people would have similar perceptions towards Polish managers; however, they did not find such results from their qualitative analysis. The reason could be the historical and geographical connection between Poland and Germany. From this point, the researcher argues that firstly, if we use Hofstede's dimension to compare two national cultures, we would choose the dimensions on which two cultures have significant difference. Secondly, when we divide and define different cultural societies, we should be careful; for example, defining Western Europe, North American and Australia as Western culture is safer than including South Europe. Moreover, defining Eastern Asia as Eastern culture is safer than including other Asian countries, based on the consideration of their history and cultures.

One of Hofstede's dimensions - individualism-collectivism - is thought to be useful for

comparing Western and Eastern cultures, especially for British and Chinese cultures (Hofstede et al., 1990). It is interesting to note that the UK scored 89 on this dimension and China scored a low score of 20. In individualist societies, individuals are widely but loosely connected to the ones outside of their immediate family and themselves (Yang, 1981); whereas individuals in collectivist cultures are linked relatively closely to ones from their social groups (Hofstede & Bond, 1984). This distinction impacts on their decision-making process, with those from collectivist culture tending to consider the feelings and attitudes of other people within their social groups (Miller, 1994) and those from individualist cultures tending to base their decision-making on their internal thoughts and personal interests.

Hofstede was not the only person who proposed individualism and collectivism. Triandis (1989a, 1989b, 1995) also proposed this cultural dimension, complementing Hofstede's description of individualism and collectivism. He was first concerned with what the role of a relationship was to people from individualist and collectivist cultures, using a cost-benefit model. In particular, people from collectivist cultures tended to stay with important relationships, even if the cost of managing the relationship outweighs the benefit gained. In the same situation, people from individualist cultures were more likely to terminate such a relationship. Additionally, he found that being from a collectivist culture did not necessarily translate into having a collectivist attitude to relationships with all others; rather their collectivism is highly selective.

Triandis and colleagues argued that individualist and collectivist cultures could be

divided into more sub-cultures. Singleis et al. (1995) distinguished vertical individualism, horizontal individualism, vertical collectivism and horizontal collectivism. The basis for distinguishing these sub-cultures was that vertical individualism and vertical collectivism accepts inequality; whereas horizontal individualism and horizontal collectivism emphasizes social equality. The former tends to behave differently with different people, whereas the latter tends to treat different people the same way. Their study narrowed down cultural research to smaller geographical areas. Another attempt to narrow down cultural research to smaller areas was undertaken by researchers within an East Asian culture (e.g. China, Korea, Japan and Singapore). These studies found that East Asian culture was influenced heavily by Confucian philosophy, which informs individuals how to maintain harmony in the environment they live in, how to show caring and goodwill to others, and how to mutually support each other (Hsu, 1983, 1985; Elvin, 1985; Hayashi, 1988).

Apart from Hofstede's individualism and collectivism dimension, the researcher also thinks long- vs. short-term relationship and the power distance dimension could be used to compare Western and Eastern cultures, especially British and Chinese. However, Hofstede's cultural dimensions are from a holistic view to judge certain cultures (Hofstede 1980, 1983, 1994; Hofstede & Bond, 1984). It describes a society more than the individuals. Some other research studied cultural differences through a more individual or psychological perspective (Hui, 1984; Markus & Kitayama, 1991; Triandis et al., 1986; Triandis et al., 1988; Triandis et al., 1990; Triandis et al., 1993). Markus and Kitayama (1991) argued there are two aspects of the 'self': the *independent* self and the

interdependent self. The former construct of self is predominant in Western cultures and the latter construct of self is popular in Eastern cultures. The former tends to view themselves as independent from others, and the latter tends to view themselves as interdependent with others.

The independent self tends to define themselves as autonomous from groups, however it does not mean independent selves are isolated from society. They are still connected to other people, although the role of other people could be a resource for social comparison or self-validation. Independent selves are more likely to make decisions and take actions based on their inner thoughts and personal interest. According to Markus and Kitayama (1991, p.226), the independent self *“is organized and made meaningful primarily by reference to one’s own internal repertoire of thoughts, feelings, and action, rather than by reference to the thoughts, feelings and actions of others.”*

Markus and Kitayama (1991) also argued the interdependent self tends to define themselves as part of the group. They tend to make decisions and take actions with the consideration of the relationship with others in their social groups. Moreover, other people’s opinions are likely to influence their inner thoughts. According to Markus and Kitayama (1991, p.227), the interdependent self *“features the person not as separate from the social context, but as more connected and less differentiated from others. People are motivated to find a way to fit in with relevant others, to fulfil and create obligation, and in general to become part of various interpersonal relationships”*.

Markus and Kitayama (1991) are not the only scholars who have argued that there are different aspects of self. In Triandis et al.'s (1988, p.326) paper, they stated Brecker and Greenwald's (1986) definition of private and collective self: "*private self corresponds to self-evaluation based on reaching personal goals*"; "*collective self corresponds to evaluations by a reference group (in-group)*". Having considered the similarity between the private self and the independent self, and the similarity between the collective self and the interdependent self, the researcher mainly refers to the interdependent self and the independent self in this project.

One study found connections between the society level of individualism and collectivism and the psychological level of interdependent and independent constructs of self. Trafimow et al.'s (1991) experimental study between Chinese and North American participants found people from Western (individualist) cultures were more likely to express themselves through the independent self, and less likely to express themselves through the interdependent self. People from Eastern (collectivist) cultures tended to express themselves through the interdependent self. This study also found both the theory of independent and interdependent self (Greenwald, 1982; Markus & Kitayama, 1991) and the theory of individualist and collectivistic cultures (Hofstede, 1983; Triandis, 1989a) could be used to assess the cultural differences between Western and Eastern societies.

2.3.2 Cultural Influence

The previous section discusses the three cultural dimensions from Hofstede in viewing society cultures and the self-construal theory from Markus and Kitayama in viewing

psychological cultures. This section will discuss the influence of these cultural differences from the societies, especially from the individuals on their interactions with interpersonal relationships.

2.3.2.1 Cultural Influence on Relationships

Triandis (1989b) argued people from Western and Eastern cultures have different perceptions of in-group members. People from Western cultures see a person within the in-group as someone who is similar to them in attitude, social class, beliefs or attitudes; whereas people from Eastern cultures see this same in-group person as someone who is concerned about them. The range of in-group members for people from Western cultures should be wider than that of people from Eastern cultures (Triandis et al., 1988). Their in-group size tends to be larger, but contain more weak ties. People from Western cultures may have more chances to join as well as leave social groups. Most of their relationships are short-term oriented (Hofstede, 1991). People from Eastern cultures may still join many social groups, though they are more likely to form small groups and define clear boundaries between the out- and in-group. Most of these in-group relationships are long-term oriented (Hofstede, 1991).

Hui (1984) studied people from Hong Kong and found participants behaved differently according to the different types of relationships. To family and close friends, they showed a higher level of caring, whereas to some weak relationship friends or strangers, they did not show the same level (if any at all) of caring towards them. Their finding is consistent with Triandis' (1989a) argument that people from collectivist cultures do not show "collectivism" to all the others. Matsumoto et al. (1988) also found Japanese people

tended to prevent themselves from being angry with close friends, but were less likely to avoid anger with strangers. On the contrary, American people would express their thoughts directly to their close friends, without hiding their anger. Kitayama et al. (1990) added that people from Eastern cultures tended to pay more attention to information about certain others, if they thought the relationships with these people would continue. Yuki et al. (2005) found not only direct close relationships, but also potential relationships, could have an impact upon people's behaviours in Eastern societies. They found Japanese people tended to trust people who they could build a potential relationship with. The results of these studies suggest people from different cultures, especially those from Eastern cultures, vary their behaviours according to different relationships.

2.3.2.2 Cultural Influence on Motivations

According to Markus and Wurf (1987), people from Western cultures are more likely to be motivated by something matching their personal interest or that helps them achieve their personal goals. In particular, anything deemed helpful for improving their ability or experience would be more attractive to them. The reason is that people from Western cultures tend to live independently from others. They have to do most things by themselves, therefore they have to be more competitive; this enables them to solve most problems on their own. They do not have the tendency to rely upon others. Moreover, people from Western cultures tend to make them unique from others, so new information and new resources may be more attractive to them. Markus and Kitayama (1991) argued people from Eastern cultures are more likely to be motivated by something that could be beneficial for their important relationships. Compared to people from Western cultures,

people from Eastern cultures tend to live more interdependent with certain others. According to Confucianism, these individuals should feel an obligation to support and care for each other if they live interdependently. Given this, they do not need to be competitive. If someone faces problems, they can get help from certain others. Maintaining the relationship and getting substantive support from certain others is more important to them.

2.3.2.3 Cultural Influence on Communication Style

Cross-cultural studies found culture influences people's communication. Hall (1976) stated in Eastern countries such as China, people tend to communicate in an implicit way. This is consistent with Markus and Kitayama's (1991) finding that people from Eastern countries have to care about the feelings of others. They tend to think more about whether the words will affect the relationship with others and do not directly talk about their inner thoughts and true feelings. Hall (1976) further stated people from Eastern countries tend to interpret the meaning of words based on the context when receiving information from others, without others talking in an explicit way. This forms a typical Eastern communication style – high context. Hall (1976) also stated in Western countries such as the UK, people are more likely to communicate in an explicit way. This is, again, consistent with Markus and Kitayama's (1991) finding that people from Western countries tend to pursue personal goals and fulfil personal interest. Without talking explicitly, they cannot let other people understand their inner thoughts and true feelings. Hall (1976) mentioned people from Western countries tend to communicate with less contextual background information about the meaning they are trying to express. This forms a typical Western communication style - low context. In general, their studies

offered a perspective that people from Eastern cultures communicate implicitly and expect the listener to infer the meaning based on the context. People from Western cultures though communicate explicitly and have less expectations from the listener's side.

2.3.2.4 Cultural Influence on Cognition

Nisbett et al. (2001) argues that people from Western cultures tend to have an analytic cognition, whereas people from Eastern cultures are more likely to have a holistic cognition. According to Nisbett et al. (2001, p.291), "*East Asians to be holistic, attending to the entire field and assigning causality to it, making relatively little use of categories and formal logic, and relying on "dialectical" reasoning, whereas Westerners are more analytic, paying attention primarily to the object and the categories to which it belongs and using rules, including formal logic, to understand its behaviour*". In other words, people from Eastern cultures are more likely to pay more attention to the field and try to find out the relationships between objects (e.g. A is part of B). In contrast, people from Western cultures tend to focus more on the objects and the attributes of the object (e.g. A and B are both X). This argument is consistent with Markus and Kitayama's (1991) self-construal theory which suggests that people from Eastern cultures tend to perceive themselves as embedded in a large context of which they are interdependent parts. If they perceive themselves in this way, it is likely that they tend to perceive other objects the same way. We would therefore expect that when people from Eastern cultures manage their perceptions of others, they tend to pay more attention to the content, context and try to link all the related factors together. In contrast, people from Western cultures tend to

find out the attributes of the object and use certain rules and knowledge to make the judgement.

2.3.3 Cultural Differences in Computer Mediated Communication

The previous section talks about cultural theories and the influence of cultural differences on relationship, motivation, communication style and cognition. This section mainly reviews the cross-cultural computer mediated communication research. Cultural theories in real life were used quite often as theoretical basis for cross-cultural online studies.

2.3.3.1 Cultural Theories as Theoretical Background

The concern for cultural differences in the research of computer-mediated communication was generated from the thought that most tools or platforms are initially developed in Western countries. It was questionable whether cultural differences exist in people's use of these technologies. If cultural differences do exist, the platforms that may be designed with the assumption of homogenous populations based on Western cultures, need to be developed with the understanding of how user behaviours and needs are different across cultures. Previous research on cultural differences in computer-mediated communication compares different cultures: national culture between two or more countries (Ardichvili et al., 2006; Li & Kirkup, 2008); Eastern and Western cultures between people from East Asia and Western countries (Yum & Hara, 2005); and other cultures (Gunawardena, et al., 2001). The researcher mainly reviewed and reported research on Western and Eastern cultures.

Kayan et al. (2006) researched the use of instant messaging between users from Eastern

and Western cultures. Their sample mainly included East Asian and Indian participants representing Eastern culture, and North American participants representing Western culture. They found users from Eastern cultures were more likely to use multi-party chat, video chat and emoticons than users from Western cultures. Setlock et al. (2007) undertook a study which compared online communication within Chinese and American groups (in-cultural), as well as Chinese and American mixed groups (cross-cultural). Although their participants were from two countries, their focus was still on the difference between Western and Eastern cultures. The Chinese and US samples were representative of these two cultures in their study. They found Chinese pairs used the word “we” more frequently, whereas American pairs used “I” to greater extent, when describing something to their partner through online communication. Their findings are consistent with cultural theories. The ‘one’ is made up of the interdependent self and the independent self. It suggests people from Eastern cultures tend to describe themselves through their relationship with others, explaining why they like to use “we” in the online communication. Similarly, people from Western cultures tend to describe themselves distinctively, explaining why they like to use “I” when communicating. Moreover, Chinese people like to use emoticons in their online communications. Firstly, it is an indirect communication style popular in Eastern cultures; and secondly, it can transfer their feelings to their partner, not just simple communication. Vatrapu and Suthers (2010) studied cultural differences in online information sharing. Their sample included Chinese and American participants, again, representing Eastern and Western cultures. They found American participants tend to explain their ideas more explicitly than Chinese participants. It is consistent with the cultural theory about high- and low-context

communication styles. Being brought up in a low-context culture may be the reason why American participants prefer a more explicit and direct communication style online.

Cross-cultural comparisons also extended to social networking sites, although the comparisons were mainly between users from different sites and in two different countries. Cho (2010) examined cultural differences between the usage pattern between people in US and people in Korea on social networking sites. He conducted a survey questionnaire and content analysis of participants' online profiles. He found Korean users managed their relationships online more narrowly and tightly, and interacted more intimately on social networking sites. For self-presentation, they found Korean users placed more effort upon and were concerned more about their self-presentation on social networking sites. For communication styles, they found Korean users tend to communicate implicitly whereas American users tend to communicate explicitly. These cultural differences are associated with cultural theories. For example, people from Eastern cultures tend to focus more on their self-presentation because they are more concerned about how their self-presentation will influence others' impression of them, and hence affect their relationships with others. Moreover, people from Eastern cultures like to stay closer to their family members and close groups, explaining why they manage their relationship more narrowly and tightly. His research clearly suggests the revisiting of cultural differences shown in cultural theories on social networking sites. However, his research is limited by comparing users from two different social network sites. It is difficult to say whether the affordance and environment of different social networking sites will affect the study. Fogg and Lizawa (2008) also compared cultural differences

between Japanese users on Mixi and American users on Facebook. They found that the average number of friends for Facebook users was 281, whereas that of Mixi user was 58. The ideal number of friends reported by Facebook users was 317, whereas that of Mixi users was only 49. Their finding also triggers a cultural difference; that people from Western cultures tend to be connected with a greater number of friends, whereas people from Eastern cultures tend to focus on a smaller range of important friends.

2.3.3.2 Methods in Cross-cultural Computer Mediated Communication Research

In viewing the related studies for cross-cultural online communication, the researcher also paid attention to the methodologies previous research applied when studying cultural differences. Wang et al. (2009) used an experimental design to test whether people changed their communication style with people from different cultures in online brainstorming tasks. Their sample included American and Chinese participants. They were interested in how people communicate with others from their same culture and others from a different culture. They found Chinese participants disclose less information when communicating with Chinese and adapted their communication style through disclosing more when communicating with cross-cultural partners. The first finding is consistent with cultural theory suggesting people from high-context cultures (e.g. China) can infer the meaning of words through the context, therefore they only need to give certain information and others will understand. However, when communicating with people from different cultures, cultural theory suggests that people from Eastern cultures are concerned more about others in their communication. Chinese people would therefore disclose more information to avoid misunderstanding with their partners. They found American participants did not change their communication styles.

Apart from experimental designs, qualitative methods such as interviews and observation were also used to identify cultural differences. Setlock and Fussell (2010) reported their interview study with 22 participants from North America and East Asia. Their focus was on how people perceive the use of different communication tools in different environments. Using grounded theory as methodology, they identified factors such as affordance of technology, fluency, culture and preference that would affect people's choice of communication tool. Moreover, they found East Asian participants were concerned more about whether the use of communication could additionally affect or support their relationship with others, if the use of communication could manage their emotional cues, and whether the use of communication tool fitted the social norms.

Kim and Papacharissi (2003) reported their observation on cultural differences between individual home pages in Korea and US. Their content analysis indicated that American presenters were more likely to choose a direct manner, through direct description of personal characteristics; whereas Korean presenters tended to provide extra links to display their interests. De Angeli (2009) reported her observation on the differences of online presentation between British and Chinese students on one of the early social network sites – Windows Live Space. She found Chinese participants have a different self-presentation style online from British participants – especially in their communications styles.

2.4 Review of Research on Social Networking Sites

The aim of this project is to research multi-cultural social networking. In this section, the

researcher draws attention to the platforms – social networking sites. The studies on social networking sites include behaviours, self-presentation (as a specific behaviour), information revelation, networks as well as social capital. Most of reviews reported in this section are on Facebook.

2.4.1 Behaviours

Research on social networking sites has focused on user behaviours. Behaviours include: presenting, observing, sharing, commenting, photo tagging, using applications, joining groups, leaving messages, and chatting (Lampe et al., 2006; Joinson, 2008). These behaviours are determined by the functions provided by social networking sites (Valenzuela et al., 2009). Pempek et al. (2009) studied how users interact on Facebook. They asked participants to keep diaries to record their Facebook behaviours and surveyed them afterwards. They found their student sample spent on average half an hour per day on Facebook. This result is consistent with Lampe et al.'s (2006) study, suggesting student samples mainly keep lightweight contact with their friends on Facebook. They also found that disseminating information was predominant among all the behaviours. While users were sharing information to their friends, they also tended to spend more time on observing the content shared by their friends. Viswanath et al. (2009) used the crawling method to grab information from Facebook wall posts. Their main focus was on the activity network on Facebook, which represents how users actively and publicly communicate with their friends. They found birthday messages were very common among user pairs who have a low-rate of communication. This may be due to a function of Facebook which provides birthday alerts to users. They also found the objects which

individuals communicated with, changed over time. Only a small percentage of user pairs kept communicating over months. Their study was however limited, as it only researched public information on wall posts, without knowing the other ways of communication. Users could change their communication from public to private.

There is also some social networking research that sheds light on cultural differences. Vasalou et al. (2010) researched Facebook behaviours across 5 different countries. They mainly studied Facebook behaviours by dividing them into categories: social searching, social browsing, group, status updates, uploading photos and applications. They found their UK participants rated group behaviours as being more important, compared to the US sample. Lewis et al. (2008) also compared Asian students, Black students, and Latino and White students' Facebook use. They found the other students had more diverse social networks than White students. Their results also suggest users with different ethnic backgrounds tend to display different behaviours on Facebook. In particular, white students' networks on Facebook are more homogeneous, therefore their behaviours on Facebook are more distinctive.

2.4.2 Self-Presentation

Social networking sites offer an important research context for researchers to examine self-presentation, perception management and their relationship to friendship performance. Research found self-presentation on social networking sites does not only present users themselves, but also presents their connection with others; for example, from the friend list or from the friend's comment on user's homepage (Donath & Boyd,

2004; Boyd & Heer, 2006). The presentations about both the user themselves and the user's connections with other friends can help the audience build their impression of the presenters. Back et al. (2010) observed participants' profiles on social networking sites, measured their personality and ideal self, as well as asking users to observe their profiles and rate their impression of the profile owners. They found social networking site users' profiles were not used to express their ideal self, but their real personality. This is because the presentation of self on social networking sites can be viewed and validated by their friends. The result from Zhao et al.'s (2008) study seems to provide a better understanding of how users present themselves on Facebook. Their content analysis of 63 Facebook accounts suggests that users are less likely to directly show themselves through personal pictures or personal blogs; rather, users are more likely to indirectly present themselves through a friend list, a photo tag with friends and postings on Facebook wall (supporting Donath & Boyd's (2004) argument). It also suggests that users may express their true self on Facebook; however, they tend to stretch the truth to make them more socially desirable (consistent with Back et al.'s (2010) argument).

Lampe et al. (2008) explored the relationship between the volume of friends and self-presentation in Facebook profiles. They found some self-presentations included information such as experience. From these parts, the audience can easily identify whether they have a shared experience with the presenter and whether they should have an online connection with the presenter. They also found self-presentations included information such as friend networks. These parts are difficult to be falsified. These fields in users' online self-presentation are associated with larger volume of friends. Walther et

al. (2008) researched whether the public messages from friends and the appearance of friends on Facebook affected observer's perception of the presenter. They found the appearance of one's friends in one's profile had an effect on the observer's impression management about the profile owner. They also found if the profile owner's friends left public messages pertaining to praise and compliment on their wall, the observer tended to rate higher social and task attractiveness of the profile owner and gave higher credibility to them. Their study clearly showed that both physical attractiveness and verbal content on one's self-presentation will affect other users' perception and impression. They also found the friends list on Facebook was an important part of one's online self-presentation, since their public messages and their appearance had an effect upon an observer's perception.

From these studies, it is obvious that self-presentation is a unique feature of social networking sites comparing to other online communities. Moreover, self-presentation is the basis of most interactions as it creates the opportunities to interact. We can infer that self-presentation may affect users' future interactions and relationship building, and affect social capital building because it is associated with users' impression management. To research multi-cultural social networking, self-presentation is an important issue.

2.4.3 Self-Disclosure and Information Revelation

Research on social networking sites has focused on information revelation and self-disclosure. Gross and Acquisti (2005) analyzed 4000 university students' profiles on social networking sites, seeking to understand the type and amount of information

disclosed by students. They found most students disclosed basic personal information in their profiles such as their real name, true image and data of birth. Fewer students disclosed some other information such as telephone and address. They also found most student users apply the default privacy setting, making their profiles searchable and visible to most of their online friends. Acquisti and Gross' (2006) further survey study found that even users who have concerned privacy issues, still shared a great amount of information on Facebook. They examined the motivation for users to share information on Facebook and found users disclose information on their profiles by reason that it can make their friends easier to find them and that it could make them popular. Their result suggests that certain benefits motivated users to disclose information on Facebook, even though they understood the potential risk arising from privacy issues. Dwyer et al. (2007) shared the same view. Their survey study comparing MySpace and Facebook suggested Facebook users disclose more personal information than MySpace users. Although the level of trust was low among MySpace users, it did not affect users finding new relationships. However, compared to Facebook users, their information revelations were limited by the lower level of trust. This study suggests that trust and usage goals will influence how likely users are to share their information.

2.4.4 Network

Research on social networking sites has identified the feature of a friend network on Facebook. Golder et al. (2007) analyzed 363 million messages exchanged by users on Facebook. They found the messages exchanged on Facebook were not only between students from the same university, but also between students from different universities.

This result suggests that some Facebook relationships are geographically bounded and some Facebook relationships are geographically separated. Facebook has the ability of connecting former-inhabited relationships. They also found message exchange did not exist between most friend pairs. This result suggests that communicating with lots of friends is harder than having lots of friends. Ellison et al. (2007) reported that their survey study with a student sample had suggested that most Facebook relationships are generated from offline relationships. Some of these offline relationships may be weak; however, it reflects a certain level of relationship which has some common elements between users who befriend each other. Users very rarely add strangers and meet new people on Facebook. They were also less likely to do online dating through Facebook. This is why Facebook is different from some other social networking sites and online communities. Lampe et al. (2006) in their survey study with a student sample also reported that when Facebook users add friends online, they are more likely to search for people who may have certain connections with them, rather than browse complete strangers who do not share an offline connection with them. These studies identified the feature of a Facebook friend network that is mostly generated from certain levels of offline relationships. These studies mainly focused on student samples.

2.4.5 Social Capital

Research on social networking sites has focused upon its relationship with social capital. Valenzuela et al. (2009) tested social capital through life satisfaction, trust, civic management and political involvement. They found a positive association between Facebook use and these factors. This result suggests Facebook may bring positive

benefits to college students, and not just a negative outcome (i.e. wasting time). However, they found the contribution of Facebook use to these social capital factors was very small. They concluded student users should not use Facebook to replace their regular civic engagement. Their study mainly examined whether Facebook use decreased the effort students spent on civic engagement in the real life, hence decreasing their social capital. Their approach was very similar to Putnam's (2000) research which focused on national social capital, which also looked at civic engagement and trust among citizens. Ellison et al. (2007) studied the relationship with social capital focusing more on an individual's ability to manage the resources from their online friend network. They combined Williams' (2006) online social capital with their own social capital measurement to test whether students' Facebook use within one university network was associated with their perceived social capital. They mainly tested bridging, bonding and maintained social capital, representing an individual user's ability to connect to a broader range of resources, receive substantive support and maintain previous-inhabited relationships. Through a survey study, their regression analysis found Facebook use was positively related with individual users' self-reported three forms of social capital. In particular, Facebook use was more associated with bridging social capital. Their results were consistent with the results of similar study in organization. Steinfield et al. (2009) used a similar measurement for a study among Beehive users. Beehive is an internal social networking site for IBM employees. They tested whether social network site use at work was also associated with social capital. They also found that intense use of social networking sites was associated with a greater amount of perceived social capital.

Williams' (2006) online social capital scales for measuring bridging and bonding social capital and Ellison et al.'s (2007) maintained social capital measurement were used in a number of Facebook studies for social capital. Papacharissi and Mendelson (2011) researched the relationship between motivations of Facebook use and social capital. They found passing time and relaxing entertainment motivated most Facebook users to use this site. More instrumental use, such as information seeking and professional advancement, were not the main motivations of using the site. They found relaxing entertainment and professional advancement was associated with bridging social capital; whereas time spent on Facebook was associated with bonding social capital. No significant predictors for maintained social capital were found. Burke et al. (2011) reported in their longitudinal survey that Facebook activities included: 1) directly communicating with individual friends; 2) passively receiving information; and 3) disseminating or broadcasting information. Their regression model suggests only direct communication with individual friends is associated with bridging social capital. They did not find any activities predict bonding social capital. However in Burke et al.'s (2010) study, they found that direct communication with individual friends is associated with bonding social capital. They proposed four explanations for this. Firstly, in their longitudinal study, the first survey found Facebook behaviour was associated with bonding social capital, whereas this was not the case for the second survey. It may be due to people already having built up their bonding social capital. Secondly, users may have more channels for interacting with their close friends. Furthermore, users may not be sensitive to bonding social capital when they communicate with individual friends. Lastly, Facebook may not facilitate the improvement of strong relationships; instead, it is helpful for improving weak

relationships.

One study has paid attention to the importance of types of Facebook interactions and types of relationships for social capital building. It reflects the importance of researching social capital through interpersonal relationships. Ellison et al. (2011) reported their survey with undergraduate student Facebook users. They argued Facebook friends included latent relationships, weak relationships and close relationships. They identified three types of interactions: 1) initiating with strangers; 2) maintaining relationships mainly with close friends or actual friends; and 3) information-seeking through users with whom they share a certain level of relationship in real life. In researching the association between these Facebook interactions and social capital, their regression model only suggests that information-seeking behaviour contributes to perceived social capital. They also researched whether the number of Facebook friends is associated with social capital. However, they found the number of Facebook friends did not predict bridging social capital. This result suggests that friends who are not regarded as actual friends are unlikely to provide social capital for individual users on Facebook.

2.5 Summary

At the beginning of literature review, the researcher decided to focus on three aspects: 1) cultural differences; 2) social capital; and 3) social networking. From an in-depth literature review, the researcher firstly further confirmed the possible contributions of researching multi-cultural social networking as too little social networking research focused on cross-cultural issues. The researcher also narrowed down the three aspects in

order to focus on small points:

(1) De Angeli's (2009) research identified different self-presentation styles across cultures through online social networking. Lampe et al.'s (2007) study found out self-presentation could affect the audiences' impression and may affect the relationship and social capital. The first study in this project therefore could be done regarding the role of cultural differences in affecting users' perception of other's self-presentation.

(2) Ellison et al.'s (2007) research talked about the relationship between social capital and social networking; however their samples were mainly in-cultural. The second study in this project could focus on the cross-cultural social networking and cross-cultural social capital. Previous research on individuals' social capital mainly focused on general social capital (real life and online), this project could pay more attention to online social capital.

(3) There is little literature directly suggesting a path for researching factors affecting users' decision regarding multi-cultural social networking. The third study of this project could explore this phenomenon, rather than test hypothesis.

Based on these considerations, the researcher designed three studies to fulfil the goals of this project. The next chapter will state in more detail the design of three studies in this project and the corresponding strategies and approaches.

CHAPTER III METHODOLOGY

3.1 Introduction

The researcher believes that methodological choices should be linked to the researcher's philosophical stance and the social phenomenon to be researched. This is because the chosen methodology and the research process could be better understood if the philosophical positioning, amongst different philosophical views, is clearly identified. The philosophical views of the researcher is firstly presented and discussed in this chapter. Following the philosophical positioning, attention is drawn towards the research design of the three studies at three levels. The reason for choosing certain data collection methods and data analysis techniques for each study is also considered and discussed.

3.2 Philosophical Views

3.2.1 Positivism and Naturalistic

Lincoln and Guba (1985) summarise the positivist and naturalistic paradigm by explaining the differences between them through five aspects (Table 3.1). A paradigm represents a systematic set of beliefs about aspects of reality; as such it determines what people think about the world. In terms of academic research, this may influence how a researcher conducts the research. Positivists believe (i) there is one single reality out there; (ii) the inquirer and object are independent; (iii) inquiry is value-free and can be guaranteed by the core of an objective methodology; and (iv) that generalizations arising from the research can be made. The ultimate goal of positivism is to systematically integrate knowledge into meaningful patterns and theories, which could be tentative and

not final truth. These features match the four characteristics of positivism that Bryman and Bell (2007) stated: determinism, empiricism, parsimony and generality. However, positivism is criticized by naturalists, who believe it lacks the consideration of the subjective state of individuals and leans towards dehumanizing human beings. Naturalistic views posit that realities are constructed on multiple levels with the inquirer and object interacting. Inquiry is value-influenced, for example, the inquirer's value and the choice of substantive theory; given this, result generalisations should be restricted considering the context of time and place they were generated from. It can be seen that positivism is more likely to contain objectivity, measurability, predictability and controllability; whereas naturalistic views tend to stress subjectivity, and interpretation and comprehension of social phenomenon and social process.

Table 3.1. Axioms of Positivism and Naturalistic (Lincoln & Guba, 1985)

	Positivism	Naturalistic
Ontology	Single reality	Multiple, constructed realities
Epistemology	Knower and Known are independent	Knower and Known are inseparable
Axiology	Inquiry is value-free	Inquiry is value-bound
Generalizations	Time- and context-free generalizations are possible	Time- and context-free generalizations are impossible
Causal Linkages	Real causes that are temporally precedent to or simultaneous with effects	Impossible to distinguish causes from effects

3.2.2 Post-Positivism

Post-positivism is a philosophical view changing and amending the weak points of positivism. The first change is that, while positivism believes that inquirer and inquiry are independent, post-positivism thinks the observation is theory-laden. Given this, the subjective condition of the researcher, such as their beliefs, values and knowledge, could influence the observation. The second change is that post-positivism accepts that the

observation could be achieved in an imperfect way, because of the researcher's limitation. Nevertheless, post-positivism takes these factors into account when discussing the possible effect of bias, in order to keep the characteristics of objectivity in positivism.

3.2.3 Pragmatism

Numerous attempts have tried to make peace between positivist and naturalistic viewpoints (Howe, 1988, 1992; Reichardt & Rallis, 1994). According to Tashakkori and Teddlie (1998), another philosophical view is introduced - Pragmatism. *"Instead of searching for metaphysical truths, pragmatists consider truth to be "what works"* (Tashakkori & Teddlie, 1998, p.12). Brewer and Hunter (1989, p.74) also stated, *"one might instead combine methods that would encourage or even require integration of different theoretical perspectives to interpret the data"*. While positivism shows an objective point of view and constructivism shows a subjective point of view, pragmatism shows both objective and subjective points of view (Tashakkori & Teddlie, 1998; Bryman & Bell, 2007). Unlike positivists who see inquiry as value-free and constructivists who see it as value-bounded, pragmatists think value plays a crucial role in the researcher's way of conducting research and drawing conclusions; hence there is no reason to be particularly concerned about that influence. Pragmatists decide what they want to research guided by their own personal value systems; that is, the study they think is important to undertake. According to this, the researcher seeks a methodology which is consistent with their own value system, including the variables and units of analysis that they feel are the most appropriate for finding an answer to the research question (Tashakkori & Teddlie, 1998). The major difference between positivists and naturalists

on the nature of reality is about the existence of an objective, external reality. The former believe its existence, whereas the latter only believe multiple and subjective realities exist. The pragmatist point of view regarding reality consists of two parts (Tashakkori & Teddlie, 1998, p.28):

1) *“There is an external world independent of our minds. Thus the pragmatists agree with the positivists on the existence of this external reality...”*

2) *“On the other hand, pragmatists deny that ‘Truth can be determined once and for all. They also are unsure if one explanation of reality is better than another’. According to Cherryholmes (1992), the pragmatists’ choice of one explanation over another “simply means that one approach is better than another at producing anticipated or desired outcome” (p. 15)”.*

3.2.4 Philosophical Positioning in this Project

The pragmatist paradigm states that the choice of research approach should be linked more directly to the nature of research and the purpose of research (Creswell 2003). Given the main purpose of this project is to study multi-cultural social networking, the researcher believes that the pragmatist approach should be followed.

On the one hand, this project has some theoretical basis such as cultural differences and social capital. As positivism suggests, these literature could be useful for generating hypotheses and theoretical background. On the other hand, this research has some fresh

research problems regarding people's interactions in such a multi-cultural social networking environment. As such, these need to be explored in this project, following a naturalistic view. It is difficult to follow neither Positivism, nor Naturalistic. Pragmatists believe research is sometimes multi-purpose and cannot be well studied only based on wholly quantitative or qualitative approach, therefore, what works for the research is advocated (Tashakkori & Teddlie, 2003). In this project, sometimes the objective and quantitative approach should be used for quantifying certain factors and testing causal relationships; for example, the role of cultural differences in online interactions and the measurement of social capital through scales. However, sometimes a subjective and qualitative approach will be more helpful for understanding and interpreting multi-cultural social networking users' real experience, actual feelings and viewpoints. Multi-cultural social networking is a social phenomenon. Without getting actual words from the users themselves, the researcher would not be able to know whether the research he was doing was meaningful or not. Sometimes quantifying qualitative data to show the frequency and trend of the users' expressions was helpful; at other times, using qualitative data to support the explanation of quantitative data was useful (Bryman & Bell, 2007). For all the above reasons, it is better to combine the use of different approaches, rather than using one of them.

3.3 Research Process

3.3.1 Research Design

Based on the literature review, three aspects that the research would focus upon were clearly decided. The researcher decided to call them as three levels (Table 3.2). To

illustrate, the researcher began with the research on the role of cultural differences on users' perception of other's online self-presentation. This could be called at an *individual level*, because there is no interaction between users. Self-presentation and perceiving others' self-presentation are all individual behaviours (or an indirect way of interaction). Moreover, it is more about the individual users' personal feelings and judgements.

Focus was then placed upon the relationship between cross-cultural social capital and cross-cultural social networking. It aimed to understand the outcome or benefits of cross-cultural social networking, therefore the researcher decided to call the study at this level as the *consequence level*.

Lastly, the researcher studied how users interact with others through multi-cultural social networking; factors affecting users' management of multi-cultural social networking were of interest. This level was therefore called the *network level*.

Table 3.2 Three level approach to the study of multi-cultural social networking

Levels of Research	Research Focus
Individual Level	Individual's feeling and judgement (social networking provides self-presentation)
Network Level	Interactions and the management of social networking (social networking provides functionalities for interactions)
Consequence Level	The outcome of social networking, social capital (social networking makes friend network online)

3.3.2 Research Strategy

Before introducing the research strategy for this study, the researcher reviewed quantitative and qualitative approaches, as well as deductive and inductive reasoning. This part presents the comparison between these approaches and reasoning.

As shown in Table 3.3, quantitative approach emphasizes the meaning of numbers and the application of statistics. Usually data collection through a quantitative approach includes undertaking experiments, surveys, or questionnaires; most of them are structured. The main steps in the quantitative approach are usually as follows: 1) build hypotheses; 2) formulate research design; 3) select subjects and research instrument; 4) collect data; 5) analyze data; and 6) state findings and discussions. To ensure the quality of quantitative research, there are so many important issues such as internal reliability (check through Cronbach's alpha), measurement validity (whether the measurement measures the concept), and sample selection to name but a few to consider.

In contrast, the qualitative approach stresses the meaning of texts and its interpretation. Data collection through qualitative techniques usually involves diary, interview, observation and focus group. The main steps in qualitative approach are usually as follows: 1) set out general research question; 2) select relevant subjects; 3) collect data; 4) interpret data; 5) develop conceptual and theoretical work. The quality of qualitative research can be improved through considering the following four aspects: (i) external reliability – the degree to which a study can be replicated; (ii) internal reliability – inter-observer consistency which relates to whether observers agree on what they see; (iii)

internal validity - whether the researcher's observation matches the theoretical ideas; and (iv) external validity – to what degree the results can be generalized (Bryman & Bell, 2007).

Table 3.3. Difference between Quantitative and Qualitative research (Marschan-Piekkari & Welch, 2004)

	Quantitative	Qualitative
Data	Numbers	Texts
Analysis	Statistics	Interpretation
Prototype	Opinion Polling	Depth Interviewing
Quality	Hard	Soft

Deductive reasoning involves theory testing, and is linked mostly to quantitative approach; however on occasion, a qualitative study can also follow deductive reasoning (e.g. by using one kind of content analysis). Research using deductive reasoning usually starts with certain hypotheses. Inductive reasoning however is theory generating, which is linked to the qualitative approach. It is the abstraction from the observation of individual instances (Table 3.4).

Table 3.4. Comparisons between Deductive Approach and Inductive Approach (Hakim, 1987; Taylor & Bogdan, 1998; Walliman, 2001)

	Deductive	Inductive
Step 1	Theory	Observation
Step 2	Hypothesis	Pattern
Step 3	Observation	Tentative Hypothesis
Step 4	Confirmation	Theory

While the first study (individual level) of this project applied the quantitative approach, the other two studies (consequence level and network level) followed a mixed methods design (Tashakkori & Teddlie, 2003). Mixed method is a procedure for collecting,

analyzing and mixing both quantitative and qualitative data from different studies, to understand the research problem more completely. The rationale for mixing is that neither quantitative nor qualitative methods are sufficient by themselves to capture the trends and details of the situation. When used in combination, quantitative and qualitative methods can complement each other and allow for a better understanding of the phenomenon (Newman & Benz, 1998; Elliot, 2005).

According to the pragmatism argument, quantitative and qualitative methods are compatible. When designing a mixed method study, three issues need consideration: priority, implementation and integration (Creswell, 1999; 2003). Priority refers to which method is given more emphasis in the study. Implementation refers to whether quantitative and qualitative data collection and analysis comes in sequence or in chronological states. Integration refers to the phase in the research process.

Table 3.5. Four of mixed method designs (Creswell, 1999, 2003)

Design	Characteristics
Sequential studies	Two separate phases: first conduct a qualitative phase and then a quantitative phase, or vice versa.
Parallel studies	Qualitative phase and quantitative phase undertaken simultaneously.
Equivalent status	Both quantitative and qualitative approaches used equally to understand the phenomenon.
Dominant-less dominant	Within a single dominant paradigm with a small component of the overall study drawn from an alternative design.

Studies 2 and 3 in this project followed a mixed method design, more specifically sequential studies (Table 3.5). This entails undertaking two separate phases: firstly by conducting a qualitative phase and then secondly a quantitative phase (or vice versa). The

two combinations included: 1) a survey research (quantitative) followed by an in-depth interview (qualitative); and 2) an interview analysis (qualitative) followed by an experimental (quantitative) research. Table 3.4 shows the processes of deductive and inductive approaches. The first combination mainly followed a deductive approach through quantitative analysis and explained the results through qualitative data. The quantitative part took priority in this case. The second combination started with an inductive approach and tested the findings through a deductive approach (Gill & Johnson, 2002), thereby giving the qualitative part priority.

3.3.3 Research Method

Sections 3.3.1 and 3.3.2 highlighted the three level approach and research strategy. Each level of study applied a different research methodology and involved different data collection methods. This section will discuss further about the selection of data collection methods for each level, as well as the consideration of data analysis. However, further details of the data collection process and the data analysis process will be presented in the following chapters with each empirical study.

Individual Level

At this level, the researcher's objective was to examine the role of cultural differences in users' perception of other's online self-presentation and its influence on future interactions in multi-cultural online social networking. That is, whether cultural differences affect users' perception and whether users from different cultural background have different ways of perceiving other's online self-presentation.

Selection of Data Collection. Experiment was chosen as the data collection method for two main reasons: 1) previous studies; and 2) causal relationships. Firstly, De Angeli (2009) discovered cultural differences between British and Chinese social networking users' online self-presentation style by using content analysis. Those cultural differences were well connected to the cultural differences mentioned by Markus and Kitayama (1991) (self-construal theory) and Hall (1976). These findings, along with previous cultural theories, could be used to build up hypotheses in this study. Secondly, the researcher focused upon the individual's inner feelings and judgements, and upon the causal relationships between self-presentation and perceptions. Experiments can control certain factors and help the researcher to find out the causal relationships between interesting variables; it can therefore be useful for examining individual's perceptions.

Selection of Data Analysis. This section briefly mentions how the experiment was designed, in order to illustrate how data analysis was carried out. A 2*2*2 factorial between-subject experimental design was applied by reason that it is useful for testing the effect of a number of categorical factors on the response continuous variables, and the interaction effect of these categorical factors on the response variables (Elmes et al., 2006). Here the researcher will talk about how the independent variables (identity of presenter; communication style of presenter) were manipulated (Breakwell et al., 2006).

In the experiment design, the researcher decided to create four different homepages on a social networking site, owned and kept by four different personae. Each homepage included a profile and a blog. The profile showed a basic identity of the personae through

photos and names. The blog contained three diaries that reflected the personae's communication and presentation style. Through these designs, two independent variables – the identity of presenters and communication styles (cultural differences embedded) - could be manipulated. The identity of a Western presenter and an Eastern presenter could be manipulated through their names (i.e. Chinese name and English name) and appearance. Communication styles containing cultural characteristics of Western and Eastern cultures were manipulated in the verbal content shown in the blog diaries.

Based on the descriptions, such designs produced four combinations of identities and communication styles on four homepages. These four combinations also represented four different personae, reflecting four online self-presentations:

- (i) Combination 1: Western communication style with Eastern identity;
- (ii) Combination 2: Eastern communication style with Western identity;
- (iii) Combination 3: Western communication style with Western identity;
- (iv) Combination 4: Eastern communication style with Eastern identity.

The analysis was divided into two parts: quantitative and qualitative.

Part 1 – Quantitative: multivariate analysis was used to check the manipulation; univariate ANOVA was conducted to find out the effect of independent variables on dependent variables; and correlation analysis was applied to find out the associations between certain variables.

Part 2 – Qualitative: the experiment design produced homepages of two congruent combinations (i.e. combinations 3 and 4) and two incongruent combinations (i.e. combinations 1 and 2). Participants were asked to judge where they thought the space owner came from. The personae represented by two congruent combinations may be easier to judge, as the identity and communication style matched; however where the personae were represented by two incongruent combinations, it would be more difficult to tell. Participants were also asked to briefly explain why they gave such an answer. The participants' answers towards these two questions would be a good support to explain the results of the experiment. When analyzing these data, the researcher listed all the participants' answer in a table in order to see where the participants thought the personae came from and how often they made such a guess. Additionally, the researcher summarised the reasons why participants made such a guess in a table. It was also an important step of understanding their perception of others through their answers regarding these open-ended questions (Dooley, 1995).

Consequence Level

For the consequence level study, the researcher aimed to identify the relationship between cross-cultural social capital and cross-cultural social networking. The researcher applied a mixed method design, by applying a survey method followed by interviews. The advantage of combining survey research with interview research is that the researcher can quantitatively establish the existence of relationships between certain variables, but yet qualitatively examine the nature of those relationships. By discussing the results from both the survey and interview research, it could increase the external reliability to a

certain extent (Brinberg & Mcgrath, 1985).

Selection of Data Collection-1. Firstly, Ellison et al. (2007) and Steinfield et al. (2009) examined the relationship between social capital and the intensity of social networking use. The researcher planned to duplicate their studies to research the relationship between cross-cultural social capital and cross-cultural social networking, therefore the researcher decided to use the same data collection method as they used – a survey. From the characteristics of survey method, surveys are usually chosen for four reasons: 1) it is easier to achieve a greater sample population; 2) it gives each participant an equal chance because of the fixed setting of questions (unlike different responses in interviews); 3) all the questions could be written in a certain format, increasing the accuracy of responses; and 4) a number of variables are of interest (Jessen, 1978). The researcher chose the survey method because a larger sample was required, he needed to apply fixed setting of questions and also he needed to find out about certain relationships between a number of variables (Bell, 1999).

Selection of Data Analysis-1. As this survey research was partly a duplication of previous studies, it also followed the same analysis method – hierarchical regression analysis. The survey study was a correlational design. Three reasons behind this decision were that firstly, a number of variables could be measured at the same time; secondly, no variables needed to be manipulated; and lastly, the causal relationships were not interested. Hierarchical multiple regression analysis was applied to the data, as the researcher needed to enter variables in an order based on expectations. Some factors were not the core

interest; for example, demographic information and users' general Social networking use (because the research focused on cross-cultural social networking interaction). These variables therefore could be entered as controlled factors in one model during the regression analysis. The main interest, which was the cross-cultural social networking interaction, could be entered in a separate model additionally to the first model. The first set of predictor variables needed to be controlled when testing the variable the researcher was mainly interested in; this ensured that these factors did not explain the whole relationship between cross-cultural social networking and cross-cultural social capital away. This procedure made sure these controlled factors received their credit for any shared variability that they might have with cross-cultural Facebook interaction. Any observed effect of cross-cultural Facebook interaction could be considered as "independent" from the controlled factors.

Selection of Data Collection-2. The first survey research was used to establish the relationship between cross-cultural social capital and cross-cultural Facebook interactions. However, the researcher was unable to explain why cross-cultural Facebook interactions were associated with cross-cultural social capital. Moreover, the survey results could only show participants' perception of cross-cultural social capital. Interview research could help the researcher to understand their actual experiences; for example, the actual benefits they received from their cross-cultural friend network, and not just the perceived amount. According to the above two reasons, an interview study was needed to follow the survey research.

Selection of Data Analysis-2. The purpose of the interview research was straightforward - to find out how cross-cultural Facebook interactions are done and what the benefits generated from these interactions are (social capital). The researcher therefore directly asked interviewees what did they do with their friends and what benefits did they obtain? The researcher decided to take four steps in the first stage of analysis: 1) transcribe the voice recorded data; 2) analyze and code original data line by line using the researcher's word to interpret interviewee's words; 3) combine similar concepts and codes together until no further new code emerged; and 4) organize these sub-categories that emerged after combining similar concepts and codes, in order to form a smaller number of main categories (Atkinson, 2001; Flick, 2006). Two British research students were involved in this stage to check the researcher's understanding of the data from British sample, and also to ensure the reliability of the categories.

The next stage was to identify the relationship between the categories and sub-categories by bringing them back to the original text. If the interviewees reported the relationship once, the researcher recorded that there was a relationship. Moreover, after fixing all the relationships between categories and sub-categories, the researcher also calculated how many interviewees and how many times they mentioned every relationship (Marshall & Rossman, 1995, 1999; Patton, 1990; King, 1998). For this step, British and Chinese interviewee data were separated for comparison.

Network Level

At this level, the researcher aimed to find out factors affecting users' decision on their

multi-cultural social networking, by again employing a mixed method design. The researcher aimed to use interview analysis to explore the phenomenon and with the consequent findings, use experiment analysis to test the causal relationships.

Selection of Data Collection-1. The researcher only mentioned one purpose of the interview research in the last section. This section presents a further purpose for it; it seeks to understand factors affecting users' decision on their social networking interactions. The researcher carry out two parts of analysis together in one interview research, as both these two research purposes require the understanding of users' Facebook interactions: one is the outcome (in last study) and the other is the reason (in this study). In the interviews, the researcher therefore also asked the interviewees "why do you do these activities" in order to see what reasons or factors would affect the users' management of their multi-cultural social networking (Bernard, 1988).

Selection of Data Analysis-1. The data analysis in this study applied the idea of grounded theory because there was no existing literature that suggested any hypotheses. Grounded theory is helpful for using systematic strategies in creating an original analysis (Strauss & Corbin, 1990). The initial coding was in parallel with the interview analysis of previous study: open coding – coded from raw data to categories and sub-categories. The researcher then related codes to each other and focused upon the causal relationships between the codes; constant comparisons were conducted throughout. Selective coding was undertaken by having the researcher chose one category as the core category, and then linking the related categories in order to form the main story line.

Grounded theory also requires the researcher to be sensitive to the theory building. The researcher decided to do the data analysis and data collection at the same time. The researcher thereby wrote memos after each interview and listed certain concepts that emerged from the interview. These concepts were tested in the following interviews; for instance, in the pilot interviews, the researcher found interviewees frequently mentioned strong and weak relationships. Strong and weak relationships were also important concepts in the social capital literature, therefore the researcher decided to intentionally ask the interviewees to give more examples of their strong and weak relationships, when they tried to express something in the interviews. This strategy was also useful for digging out the full pictures of an interviewee's social networking.

At the end of the interview analysis for this study, the researcher checked how the results challenged, extended or refined the current ideas and concepts, by linking back the results of the related studies from the literature (Lee, 1998). The researcher also checked the resonance of the study by asking the interviewees whether the results made sense to them (Miles & Huberman, 1984). These were the gestures to ensure analysis validity. The researcher believed the quantitative study would be useful for checking the external reliability to see how confidently the theory was built (Litwin, 1995), thus an experiment was designed.

Selection of Data Collection-2. As mentioned above, the results generated from the interview analysis were tested through quantitative research in this study. The nature of grounded theory is to find out the causal relationships between a number of factors and a

key factor (main category). These causal relationships form the main story line abstracted from the raw data. An experiment was thought to be useful for testing the causal relationships, therefore the researcher decided to choose an experiment to test the results from the interview analysis in this study.

Selection of Data Analysis-2. The data analysis chosen for the experiment was multivariate analysis, given that a model built up through interview analysis reflected how factors affected users in managing their multi-cultural social networking. It was not about the influence of a single factor on the dependent factors; rather it was about the influential factors as a whole on the dependent factors. Multivariate analysis therefore allowed the researcher to verify the validity and reliability of the whole model.

3.4 Participants

British and Chinese university students from one UK university were invited as samples in this project. This is because this project aimed to compare two cultural groups in multi-cultural social networking and to highlight the differences between these two cultural groups. British and Chinese cultures were deemed representative of Western and Eastern societies respectively, and deemed to have obvious cultural conflict and cultural difference. Given Chinese students are one of the largest overseas student groups on British university campus, and also having British students as local students, it was considered easier to find enough and an equal number of participants from these two cultural groups for this study. An additional reason for choosing British and Chinese samples relates to the researcher's background; that is, he is Chinese. This sample may

bring some limitations. As only British and Chinese cultural groups are researched, the results cannot be generalized to cover all Western and Eastern cultures; however, due to the limited time and focus of this project, the researcher could not obtain access to more sample groups. A second limitation is that British students are local students and Chinese students are overseas students; as such, their situations may be different (detailed limitation in the conclusion chapter). However, this is the nature of those cross-cultural online interaction generated from real life interaction: one group is the “guest” and the other group is the “host” (Saunders, et al., 2003).

3.5 Summary

This chapter mainly introduced the philosophical positioning, research strategies and the three level approach of this project. The reasons for choosing the research methodologies were discussed; however it lacked of details of how the researcher conducted each study. These details are left for the following chapters to explain. The next chapter will present Study 1 (individual level), Study 2 (consequence level) and Study 3 (network level) in greater depth.

CHAPTER IV STUDY ONE – INDIVIDUAL LEVEL

4.1 Introduction

This chapter presents the first study of this project, which uses an experiment method to test the role of cultural differences in influencing users' perception of others' online self-presentation. It firstly reviews the background of this study, followed by a further review of the literature; based on this, hypotheses are built. The following sections describe the experiment's design, manipulation, experiment process and data analysis. The results comprise: MANOVA which tests the experiment manipulation; ANOVA which tests the influence of the independent variables upon the dependent variables; and correlation analysis on the relationships between variables. Summary tables are presented among the findings to explain the results from quantitative analysis. Finally, the results are discussed and conclusions are made.

4.2 Background

Social networking platforms (e.g., Windows Live Spaces and Facebook) provide more channels for users to interact with others through networked connections. An interesting feature of social networking sites is that the networked connections among users are based upon users' homepages or personal spaces (Boyd & Ellison, 2007). Through these homepages, users can post information to present themselves online, allowing others who have access to their homepages to look at their presentations. Social networking sites encourage these online self-presentation behaviours because online presentations could reveal more aspects of users' lives, which would not be fully exposed in their real life

interactions with friends. These behaviours may trigger further interactions, as well as help other users to build up impressions of the presenters.

Online self-presentation is different from real life self-presentation. In real life, self-presentation is subject to different levels of intentional control. Verbal communication can be more closely controlled, with people deciding what and how to disclose certain information according to the type of audience they are addressing (Schau & Gilly, 2003). Non-verbal communication (e.g. physical appearance, gestures, tone of voice and other behaviour) may escape conscious control. The way people perceive others will depend on the cues that they pick up from others' verbal and non-verbal behaviour (Goffman, 1959). In online presentation, the information that is mainly used for others to build up impressions, are their online profiles, sharing and other forms of communication. These do not contain many of the non-verbal cues that are characteristic of offline communication. They are also substantially less spontaneous (Lee, 2006; Kimmerle & Cress, 2008), more static and less immediately responsive to feedback. As a result, the perception of online self-presentation depends on how the audience reacts to these small cues online.

Social capital is based on the interpersonal relationships and interactions among people who keep the relationships. Viewing other people's online self-presentation could be considered as a special form of interaction. It is sort of an indirect way of communication and usually asynchronous (i.e. someone posts information about themselves online and the information can be viewed by others who have access to it at any time and any place).

This kind of interaction still allows viewers to make their judgement and form perceptions of the presenters; though it may affect their impression of the presenters and influence their desirability of future interactions. It appears therefore that these impressions are crucial for social capital building. To research the effectiveness of multi-cultural social networking, especially its relationship with social capital, it is important to understand the role of culture on users' online self-presentation and other users' perceptions.

Our cultural background serves to help us interpret our own behaviour and that of others. Culture thus determines a large part of how we present ourselves to the outside world and how we perceive others (Nisbett et al., 2001). Social networking site users from different cultures tend to have different self-presentation styles online (De Angeli, 2009); however it is unknown as to how the differences in online self-presentation affect audiences' perception (to be more specific, how these differences affect audiences' perception across cultures) and also whether people from different cultures have different ways of perceiving others' online self-presentation? In order to answer these questions, an experiment study was carried out following the hypothesis built from existing literature.

4.3 Hypotheses

An important psychological framework particularly relevant to the aim of this study, relates cultural differences in perception, emotion and motivation to specific forms of self-construal. Self-concept is a socio-cognitive construct used to denote all the knowledge people have about their self (Banaji, 1994). The self represents the most

important set of cognitive representations available to a person, acting as an information processor, and mediates the perception of the world. It filters, interprets and evaluates all the incoming stimuli in terms of their contribution to the individual's well-being.

Individuals from different cultures have different conceptions of the self, modulated on a continuum which varies according to the relationship between the self and others (Markus & Kitayama, 1991). The interdependent self is grounded in one's connection with relevant others, whereas the independent self is grounded in autonomy, stability and uniqueness. Other people are still important to the independent self, but mainly for social comparison, thus remain external to the self. In Eastern cultures (e.g. China), people tend to have a more interdependent self, whereas in Western cultures (e.g. UK and USA), people tend to have a more independent self. This theoretical distinction between the independent and interdependent self is explicit in several other cultural conceptualizations, including Hofstede's (1994) cultural value dimension of collectivism versus individualism. This dialectic conception of the self has important implications for the way people present themselves to others and how they communicate (Triandis, 1989b). In particular, people with an interdependent self tend to describe themselves through roles and relationships (e.g. father of X; daughter of Y). They use an indirect communication style, and prefer to express self-criticism in order to maintain harmony. In contrast, people with an independent self express themselves through their inner thoughts and feelings (Kitayama et al., 1997). These people use a direct communication style as they are driven by the realization of personal goals and the manifestation of individual capabilities.

Another way of framing the influence of the speaker's cultural background on communication style is by distinguishing between low- and high-context communication cultures (Hall, 1976). At the basis of this framework is the observation that the meaning of verbal communication often interacts with the context in which it occurs. In some societies, the cultural context in which most interpersonal interaction takes place is very strong due to their homogeneous make-up and long standing cultural traditions. In these societies, which include most Eastern societies, people can rely much more on a shared cultural context, and need not use explicit communication to make themselves understood. Other societies, in contrast, have a much more heterogeneous make-up and shorter cultural traditions. People in these societies, which include most Western societies, need to make their communication very explicit in order to be understood by others.

Differences in the perception of oneself may also have consequences for the way one perceives others. It is suggested that individuals with an interdependent self are more advertent to the needs of other people in order to maintain harmonious relationships; whereas individuals with an independent self care less about others' details due to their focus on themselves (Kitayama et al., 2000). This suggests that the cultural background of the perceiver will determine what information they take into account when judging other people's self-presentations. A study amongst Korean people found that individuals with a more independent self preferred positive presentation styles to negative ones; whereas preferences of individuals with a more interdependent self were the other way around (Kim et al., 2003).

In summary, the literature on cultural differences suggests that culture affects the way people present themselves to others, the communication styles they use, and how they perceive other people. The study aims to investigate whether cultural differences in people's online self-presentation affect the way in which they are perceived, and how this relates to the cultural background of the perceiver. Based on the background literature, the researcher developed two hypotheses about online communication:

H1: Differences in communication style and self-presentation in verbal communication will affect people's social perceptions.

H2: People from different cultures will base their opinions of others on different aspects of their self-presentation and communication style.

In order to test these hypotheses, people's social perception of pieces of online communication typical of British and Chinese people were measured. This was achieved by independently manipulating the blog style and physical appearance embedded in a personal virtual space, modelled on Windows Live Spaces. These manipulations created four different virtual spaces: two in which the appearance matched the cultural style of the blog (congruent), and two in which the appearance did not match the cultural style of the blog (incongruent). These combinations lead to a third hypothesis:

H3: Congruent combinations of appearance and blog style will be perceived as more socially desirable than incongruent combinations.

4.4 Related Work

Most of the work related to cultural differences in online communication has concentrated on the cultural differences in presentation on Web sites and personal virtual spaces. An inventory of self-presentation on MSN Spaces (the forerunner of Windows Live Spaces) owned by either British or Chinese students studying at British Universities, revealed strong cultural differences in line with the distinction between interdependent and independent self (De Angeli, 2009). For example, spaces owned by Chinese students conformed more closely to a design standard, featured more extensive friend lists, and contained more pictures. Chinese students were also more accommodating, and more inclined to host filter blogs (i.e. blogs composed of filtered feeds from other people's blogs).

Other work has focused on the cues receivers of online communication use to form impressions of the people who produced the communication. As mentioned in the introduction, there may be several strategies for dealing with a lack of cues for social perception in online communication, one of which is a tendency of "*Internet users develop impressions of others, even with the limited cues available online, by adapting to the remaining cues in order to make decisions about others. Online users look to small cues in order to develop impression of others, such as a poster's email address, the links on a person's homepage, even the timing of email messages.*" (Ellison et al., 2006, p.420). These small cues may lead to the activation of stereotypes in an attempt to fill the gaps and create impressions of others that cover many more aspects of their personality than there is evidence for (Fiske, 2000). Of the cues that are available in online

communication, a person's appearance is one that could easily trigger this application of stereotypes (Leary, 1996).

4.5 Method

4.5.1 Participants

A total of 80 students participated in the study as volunteers. Half of them were born in the UK and half of them were originally from China but were studying in UK. The data obtained from two of the British-born participants were later excluded from the analyses because they indicated that their ethnicity was Chinese. The average age of the British participants was 24.18 (sd=5.60), and that of the Chinese participants was 23.93 (sd=3.75). Facebook (<http://www.facebook.com>) was used as the main social networking platform by 100% of the British participants, but by only 25% of the Chinese participants. The other 75% of the Chinese participants reported using mainly Windows Live Spaces (<http://home.spaces.live.com>). At the time that the experiment was done, Windows Live Spaces were popular in China and most Chinese participants still preferred to use Windows Live Spaces than Facebook. The situation gradually changed during the second and third study. The gender composition of each group was exactly 50/50.

4.5.2 Apparatus

The manipulation of communication style was based on the seven dimensions of cultural differences between Western and Eastern societies described in Table 4.1, which were used to create two blogs. Each blog contained three diary entries reporting different aspects of student life. A British student and a Chinese student wrote the diaries together

in English. They were given three hypothetical events, and discussed how they would deal with those events, focusing on their attitudes and behaviours. The first theme was about a supervisor who criticized a student's work. The British student complained about the supervisor by saying "*I was miffed because she did not agree with the research topic*"; whereas the Chinese student showed respect for the supervisor by saying "*I appreciate his encouragement and supervision, I need to make every effort to please my supervisor*" (e.g. Hofstede's (1994) large vs. small power distance). The theme of the second diary entry was the student's birthday. The British student's focus was on herself, "*I usually detest birthdays, because they mean I'm getting on ... But who's to care? So I went out for lunch to celebrate and had a makeover...*"; whereas the Chinese student's focus was on her friends and diverting attention away from herself, "*All of a sudden Bill, Catherine, Alex turned up at my house shouting "come and get your present"... I was dumbstruck and forgot to invite them into my house. My house is too small and not very clean*" (e.g. Hofstede's (1994) individualism vs. collectivism). The theme of the third diary entry was about students working together on a group-work assignment. An attempt was made to make all of the cultural dimensions explicit in the differences between the diaries. Inevitably, this may have introduced other differences, such as language, but this was kept to a minimum by rigorous checks for grammatical correctness. Idiosyncratic expressions were avoided as much as possible without making the diaries sound stifled.

Table 4.1 Seven Dimensions of Cultural Differences between Eastern and Western Societies.

Eastern Culture	Western Culture	Reference
Interdependent	Independent	Markus and Kitayama, 1991
Indirect	Direct	Hall, 1976
Reserved	Open	Hall, 1976
Implicit	Explicit	Hall, 1976
Relationship-oriented	Task-oriented	Hofstede, 1994
Hierarchical	Social Equal	Hofstede, 1994
Long-term orientation	Short-term orientation	Hofstede, 1994

The manipulation of the appearance of the presenter was realized by the creation of two profiles: one containing a photo of a typical Caucasian face and typically British name (Emily Sutton), and the other containing a photo of a typical Asian face and a typical Chinese name (Song Yang). The photos were selected from Rhodes *et al.* (2005) on the basis that they were typical for their particular ethnic group and judged to be equally attractive. The profiles and blogs were styled on the format used by Windows Live Spaces. Combining the blogs and profiles created four personae: two with a congruent combination of blogs and profiles (e.g. Chinese style blog with Chinese appearance), and two with an incongruent combination of blogs and profiles (e.g. British style blog with Chinese appearance)¹.

4.5.3 Instruments

The perception of personae was measured in terms of the seven cultural dimensions of Table 4.1, the Interpersonal Attraction Scale (McCroskey & McCain, 1974) and the Source Credibility Scale (McCroskey et al., 1974). Ratings on the cultural dimensions

¹ The examples of a congruent persona with a Chinese style blog and a Chinese appearance and a incongruent persona with a British style blog and a Chinese appearance are available in the following URLs: <http://hiyahiyahiya1983.spaces.live.com/>, <http://goodbyemylover4ever.spaces.live.com/>

were obtained through 5-point semantic differential scales between two bipolar adjectives with opposite meanings at each side (e.g. between 'direct' and 'indirect'). The Source Credibility Scale was designed to measure the extent to which a person was deemed to possess Competence (e.g. "unintelligent - intelligent"), 'Caring/Goodwill' (e.g., "self-centred - not self-centred"), and 'Trustworthiness' (e.g. "unethical - ethical"). Each sub-scale had six items which were also rated on 5-point semantic differential scales. The Interpersonal Attraction scale was designed to measure a person's perceived Physical Attractiveness (e.g. "I think she is quite pretty"), Social Attractiveness (e.g. "I would like to have a friendly chat with her"), and Task Attractiveness (e.g. "you could count on her to get the job done"). Each sub-scale had six items which were rated on a 5-point Likert-type rating scale (ranging from 1=strongly disagree to 5=strongly agree).

4.5.4 Procedure

Each participant was given one of the combinations of blogs and profile, and given 20 minutes to read the content of the blog and look at the profile. Immediately afterwards they were asked to fill out a questionnaire which included questions about their age, country of origin and online social networking habits; they were also asked to rate scales for the seven cultural dimensions, the Interpersonal Attraction Scale and Source Credibility Scale. Two open-ended questions were then asked to further assess the participants' perception of the persona (e.g. "where do you think the persona is originally from?") and the reason. The total time spent by each participant was approximately 40 minutes.

4.6 Results

Multivariate Analysis of Variance (MANOVA) was used to test the effects of the independent variables upon perceptions of the personae along the cultural dimensions. Univariate Analysis of Variance (ANOVA) was used to evaluate the effect of the independent variables on the scores on the sub-scales of the Interpersonal Attraction Scale and Source Credibility Scale. Scores on all of the sub-scales were calculated by adding the ratings on the six items making up each of the scales, as recommended by the original authors. As a result, the scores ranged from 6 (ratings of 1 on all six items) to 30 (ratings of 5 on all six items). Partial eta squared statistics (partial η^2) were used as estimates of effect size. Partial η^2 was computed considering the variance attributable to the effect of interest plus error (Pallant, 2007). As a general guideline, $\eta^2 = .01$ is considered small, $\eta^2 = .06$ medium, and $\eta^2 = .14$ large. Post-hoc tests for investigating significant interaction effects were done using Tukey HSD, which controls the experiment-wise type I error (Kirk, 1995). Pearson's correlation coefficient was used to calculate the relationships between the sub-scales and those between cultural dimensions and sub-scales.

4.6.1 Experimental Manipulation Check

The internal consistency of the seven cultural dimensions was measured as $\alpha = 0.76$ and all corrected-item correlation were larger than 0.38. It appears, therefore, that there is an underlying construct being measured by these dimensions. Multivariate analysis of participants' ratings on the cultural dimensions revealed a significant effect of Blog Style ($F(7,64) = 24.00$, $p < .001$, partial $\eta^2 = .72$) (Figure 4.1); no other effects were significant.

British blogs scored higher on all seven cultural dimensions (all $ps < .001$). It can be concluded therefore that participants were able to distinguish between the blogs based on stereotypical cultural characteristics of their communication style.

The other experimental manipulation involved physical appearance, in which the independent variables on ratings of physical attractiveness of the personae were tested. No significant effects were found which ensured that physical attraction did not have to be considered in the interpretation of the effects on other variables found in this experiment.

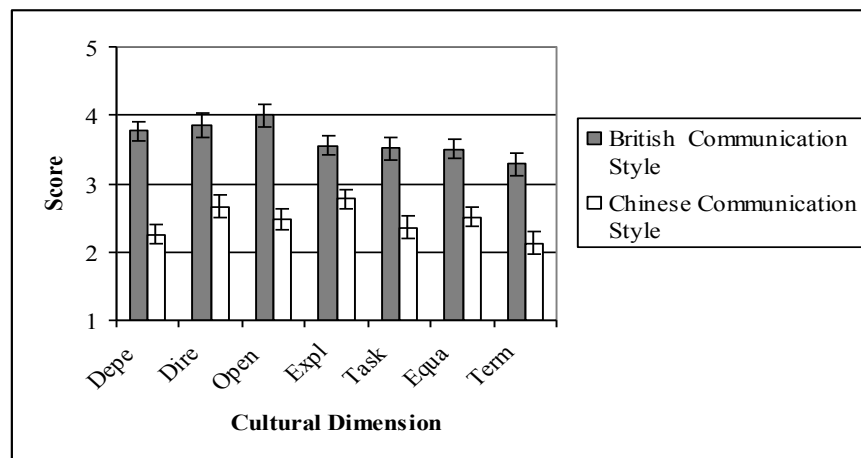


Figure 4.1 Means ratings of the cultural dimensions for personae with British and Chinese communication styles. (Error bars show the standard error)

Overall it was important to see if there was agreement amongst participants when attributing an origin to the persona they were asked to judge, and particularly how appearance and blog style affected this attribution. Table 4.2 shows how many participants made each guess and Table 4.3 shows the reasons they gave after their guesses.

Table 4.2 Judgments about the Origins of the Personae. (* BBC and people from Hong Kong were clustered together because they have a Chinese appearance but reflect behaviour that is more typical of British culture)

Blog/Appearance Combination	Participant's Origin	Attributed Origin			
		UK/Europe	China/Asia	BBC/Hong Kong	Other
Congruent (British blog style; British appearance)	British	10			
	Chinese	10			
Incongruent (British blog style; Chinese appearance)	British		5	4	
	Chinese	1	2	7	
Congruent (Chinese blog style; Chinese appearance)	British		9		1
	Chinese		10		
Incongruent (Chinese blog style; British appearance)	British	7			2
	Chinese	8	1		1

It can be seen that almost all participants thought that the congruent personae with British and Chinese appearances had their origins in the UK/Europe and China/Asia respectively. However, their opinions about the origins of the incongruent personae were more diverse. In particular, the persona with British blog style and Chinese appearance was regarded by most Chinese participants and some British participants as a British Born Chinese (BBC) or a person from Hong Kong. In this case, appearance was more important than blog style in judging a person's origin for most British participants; while most Chinese participants took both appearance and blog style into account. This may be due to the British participants' lack of knowledge in the differences that exist between Chinese people from different parts of China.

Table 4.3 Reasons for the Judgement about the Origins of the Personae. (* BBC and people from Hong Kong were clustered together because they have a Chinese appearance but reflect behaviour that is more typical of British culture)

Blog/Appearance Combination	Participant's Origin	Attributed Origin			
		UK/Europe	China/Asia	BBC/Hong Kong	Other
Congruent (British blog style; British appearance)	British	From the appearance,			
	Chinese	1, From the appearance, 2, Language			
Incongruent (British blog style; Chinese appearance)	British		1, From appearance 2, Life Style	1, From appearance 2, She is from Manchester 3, Her friends' names are English names	
	Chinese	Writing style	From appearance	1, High ability 2, Writing style 3, Life style	
Congruent (Chinese blog style; Chinese appearance)	British		From appearance		Look like Asian, but maybe live in other countries
	Chinese		1, From appearance 2, From the story she wrote		
Incongruent (Chinese blog style; British appearance)	British	1, From appearance 2, Language			Looks like East European
	Chinese	From appearance	Western appearance but knows Asian culture		Western appearance but not like British

4.6.2 Test of Hypotheses

Overall, participants' answers exhibited high reliability. The Cronbach alpha reliability for the Interpersonal Attraction Scales was calculated as 0.85 for Social Attraction, 0.80 for Physical Attraction and 0.80 for Task Attraction. The Cronbach alpha reliability for the Source Credibility scales was calculated as 0.71 for Competence, 0.73 for Caring/Goodwill, and 0.76 for Trustworthiness.

4.6.2.1 Social Attraction

There was a significant main effect of Blog Style on participants' judgment of Social

Attraction ($F(1,70)=4.27, p<.05, \text{partial } \eta^2=.05$). There was also a significant two-way interaction between Nationality and Blog Style ($F(1,70)=11.35, p<.01, \text{partial } \eta^2=.14$) (Figure 4.2). Post-hoc analysis revealed that the British blog style was judged more socially attractive by British than by Chinese participants. In addition, Chinese participants who judged personae with a British blog style gave lower ratings than those who judged personae with a Chinese style ($ps<.01$). No such difference was found between groups of British participants. The judgment of Chinese participants appeared to be affected by blog style, but not the judgment of British participants.

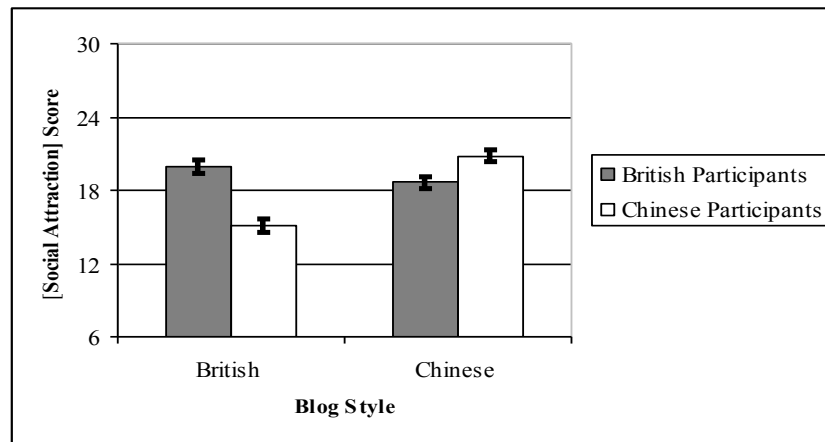


Figure 4.2 The two-way interaction between Nationality and Blog Style on the perception of “Social Attraction”. (Error bars show the standard error)

4.6.2.2 Task Attraction

There was a significant effect of Blog Style on participants’ judgments of “Task Attraction” ($F(1,70)=5.26, p<.05, \text{partial } \eta^2=.07$). There was also a significant two-way interaction effect between Blog Style and Appearance ($F(1,70)=4.53, p<.05, \text{partial } \eta^2=.06$) (Figure 4.3). Post-hoc analysis revealed that the incongruent persona with a Chinese appearance and British blog style, received higher scores on this scale than the

congruent persona with a Chinese appearance and Chinese blog style ($p<.05$). No difference was found in the scores received by the personae with a British appearance.

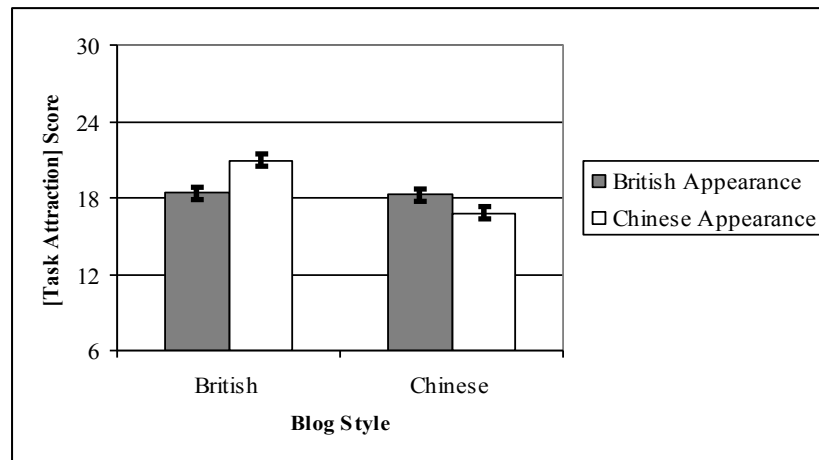


Figure 4.3 The two-way interaction effect of Blog Style and Appearance on the perception of the “Task Attraction”. (Error bars show the standard error)

4.6.2.3 Competence

There was a significant effect of Blog Style on participants’ judgments of “Competence” ($F(1,70)=32.03, p<.01, \text{partial } \eta^2=.31$). There was also a significant three-way interaction among Nationality, Blog Style and Appearance ($F(1,70)=4.01, p<.05, \text{partial } \eta^2=.05$) (Figure 4.4). Post-hoc analysis revealed that the congruent persona with a British blog style and British appearance, received higher scores than the incongruent persona with a British blog style but Chinese appearance when rated by British participants ($p<.01$). The congruent persona with Chinese blog style and Chinese appearance received lower scores than the incongruent persona with British blog style and Chinese appearance when rated by Chinese participants ($p<.05$). This suggests that British participants based their perception of competence on both appearance and communication style of online persona; whereas verbal cues had a bigger impact on the ratings of Chinese participants.

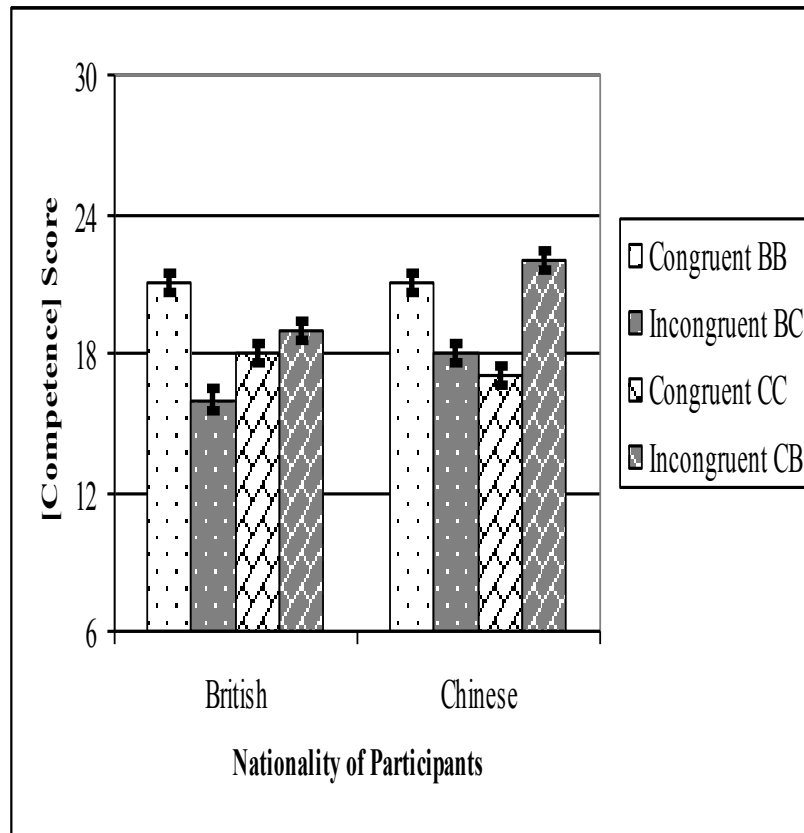


Figure 4.4 The three-way interaction effect on the perception of the “Competence” of the personae. (Error bars show the standard error)

4.6.2.4 Caring/Goodwill

There was a significant effect of Blog Style on participants’ judgment of “Caring/Goodwill” ($F(1,70)=23.89, p<.01, \text{partial } \eta^2=.25$). There was a significant two-way interaction between Nationality and Blog Style ($F(1,70)=5.10, p<.05, \text{partial } \eta^2=.06$) (Figure 4.5). Post-hoc Analysis revealed that the goodwill of personae with a Chinese presentation style was judged to be higher than that of personae with a British presentation style by Chinese participants ($p<.01$); no such difference was found for British participants. Again the judgments of Chinese participants appeared to be affected by the blog style, but not those of British participants.

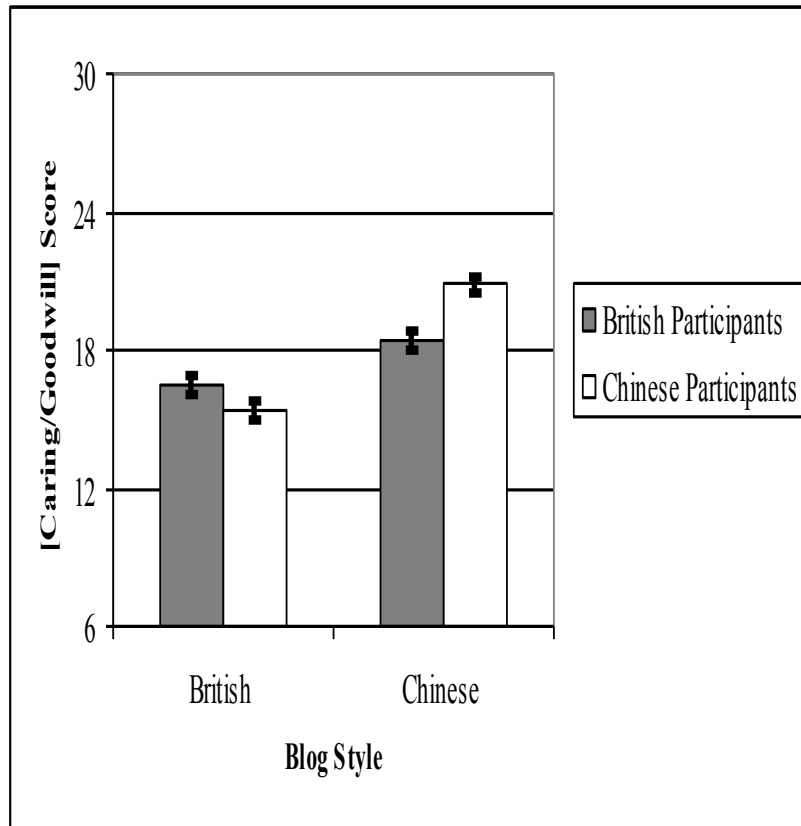


Figure 4.5 The two-way interaction effect on the perception of the “Caring/Goodwill” of the personae. (Error bars show the standard error)

4.6.2.5 Trustworthiness

There was a significant three-way interaction among Nationality, Blog Style and Appearance ($F(1,70)=5.58$, $p<.05$, partial $\eta^2=.07$) (Figure 4.6). Although post-hoc analysis revealed no significant pair-wise differences, there was a trend that congruent personae were rated as more trustworthy than incongruent personae when judged by British participants; whereas a slight opposite trend was observed for Chinese participants.

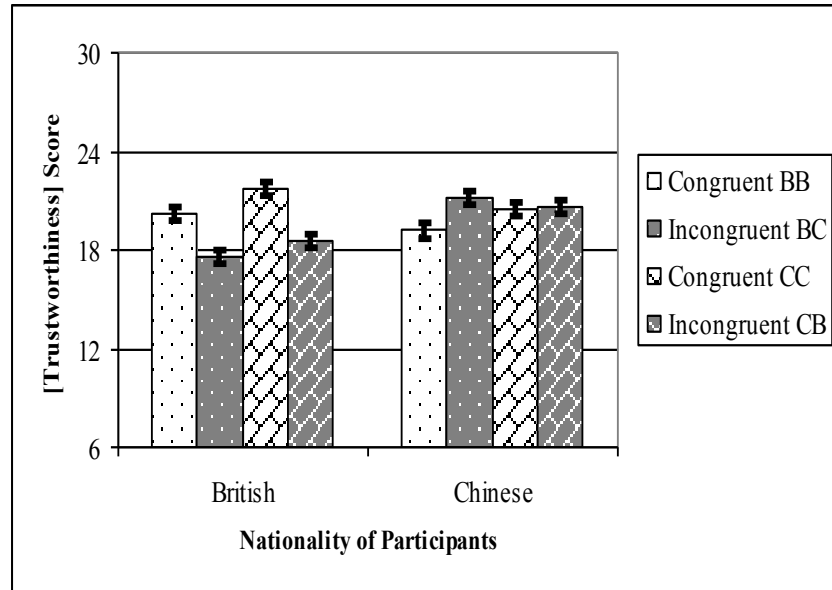


Figure 4.6 The three-way interaction effect on the perception of the “Trustworthiness” of the personae. (Error bars show the standard error)

4.6.3 Correlations

Correlations were calculated between ratings on the Interpersonal Attraction scales and Source Credibility scales for both British and Chinese participants separately. For British participants, there were no significant relationships ($ps > .05$). Chinese participants tended to see more competent personae as less socially attractive ($r = -.49, p < .01$), and preferred making friendships with more caring personae ($r = .54, p < .01$). Remarkably however, physical attraction was somewhat related to task attraction for Chinese participants ($r = .34, p < .05$).

Table 4.4 shows the correlations between the ratings of the personae on the seven cultural dimensions and the ratings on the Interpersonal Attraction and Source Credibility Scales. From this table, it is clear that Chinese participants perceived personae with the British

style of communication to be more competent, but also less caring based on all cultural dimensions. Chinese participants also based their judgments of social attractiveness on the interdependence, hierarchy, and relationship and long-term orientation of the blog style. All of these appear more in Chinese style blogs. British participants tended to associate with an independent blog style with more competence, and an explicit communication style with more socially attractive; additionally, they associated with blog styles that were more direct, and more focused on social equality and short-term relations with higher task attractiveness. All of these appear more in British style blogs.

Table 4.4 Significant Correlations between 7-Cultural Dimensions and Scales among British and Chinese participants. (**=significant at the 0.01 level; *=significant at the 0.05 level)

Cultural Dimension	Nationality	Scale	r
Interdependent vs. Independent	British	Competence	.48**
	Chinese	Social Attraction	-.68**
		Competence	.52**
Indirect vs. Direct	Chinese	Caring/Goodwill	-.68**
		Task Attraction	.34*
	British	Competence	.35*
Reserved vs. Open	Chinese	Caring/Goodwill	-.52**
	British	Competence	.49**
Implicit vs. Explicit	Chinese	Caring/Goodwill	-.48**
		Social Attraction	.34*
	British	Competence	.40**
Relationship-oriented vs. Task-oriented	Chinese	Caring/Goodwill	-.44**
		Social Attraction	-.43**
	British	Competence	.56**
Hierarchical vs. Social Equal	Chinese	Caring/Goodwill	-.50**
		Social Attraction	-.36*
	British	Competence	.56**
Long-term vs. Short-term Relations	Chinese	Caring/Goodwill	-.36*
		Task Attraction	.50**
	British	Social Attraction	-.39*
		Task Attraction	.38*
		Competence	.44**
		Caring/Goodwill	-.39*

4.7 Discussion

The nature of the interaction between variation in blog style of presenters and cultural background of audiences was clearly illuminated by this study. In particular, most of the cultural characteristics of the Chinese blog style were deemed by Chinese participants to contribute to creating more socially attractive and caring personae. This is consistent with the first hypothesis, stating that differences in communication style and self-presentation in verbal communication will affect people's social perceptions. Moreover, Chinese participants expressed a preference for interacting with people from their own-social group. It also indicated that the desirability of initiating an online relationship varies between people from different cultures and is based on different aspects of self-presentation and communication style (H2).

There was also a clear interaction between the blog style of personae and their appearance on social perception of the participants, and in particular, on the perceptions of task attractiveness. Surprisingly, incongruent personae tended to be judged as more attractive to work with than congruent personae. This could be explained by taking into consideration the origins attributed to these personae. In particular, incongruent persona with Chinese appearance and a British blog style were deemed to be British-born Chinese or from Hong Kong. Participants may have applied cultural stereotypes of these people that suggest they are high achievers, making them more attractive to work with. For example, participants may have used their knowledge of the fact that British born children with Chinese ethnicity tend to achieve very high standards in education (e.g. they have the highest percentage of pupils achieving 5 good GCSEs, which are exams

taken at age 16), compared to children from other ethnic groups including White British (UK Department for Education and Skills, 2004).

4.8 Conclusion

The results of this study provided support for the first two hypotheses, but no unequivocal support for the third hypothesis was found. This suggests that cultural differences embedded in online communication can dramatically impact the impressions it creates in people, and that these impressions depend on their cultural background. Indeed, users from different cultural backgrounds rely on different cues when forming impressions of others. British users may pay less attention to verbal cues than Chinese users, who tend to focus more on the detailed content of communication. The emphasis on individualism apparent in Western cultures may make them more suspicious of inconsistencies between appearance and content; whereas people from Eastern cultures may be prone to explain such anomalies away by evaluating individuals in relation to in-group and out-groups. This result is consistent with Hall's (1976) high- and low-context theory. Effective communication in high context cultures requires a high degree of common ground between presenters and receivers. Furthermore, cross-cultural experience may play an important role in the findings. Historically the UK has a vast multi-cultural experience, which may affect British participants' responses. Similarly, Chinese participants may be influenced by British culture, as they have relocated to the UK. Alternative explanations however cannot be ruled-out, such as the increasing importance of political correctness in cross-cultural encounters typical of British society.

Another limitation is that this study did not test the cultural background of British and Chinese participants. The researcher could have asked the participants to rate themselves in the cultural characteristics dimension after rating the presenter's cultural characteristics. If that was done, then the researcher could compare how the cultural background of the audience and the cultural background of the presenters interact; this may provide a better understanding of the role of cultural differences in people's perception. However, due to the consideration of focusing on the users' perception of others, the researcher did not conduct this step.

The results may have a number of implications for the design of social networking platforms, as they may need to be designed to satisfy cultural differences, due to what the researcher has shown to be important variances in preferences and presentation amongst users. In addition, people should be made aware of the different ways in which their self-presentation can be interpreted differently by people with different cultural backgrounds. Such awareness may increase the effectiveness of cross-cultural online relationship building.

4.9 Summary

This chapter presents the first study at an individual level, by focussing upon individuals' perception and judgement of others' online self-presentation. The results firstly showed that cultural differences in online self-presentation do affect users' perception and impression about the presenter. Secondly, both British and Chinese audiences showed a positive attitude towards people from their same cultures. Lastly, British and Chinese

users focus on different aspects of others' presentation. The results inferred therefore that there is difficulty in cross-cultural communications. In light of this, in the next study, before testing the relationship between cross-cultural social capital (generated from cross-cultural relationships) and cross-cultural social networking, the researcher will test the existence and the amount of cross-cultural social networking.

CHAPTER V STUDY TWO - CONSEQUENCE LEVEL

5.1 Introduction

The last chapter presented the study at the individual level. The results showed that social networking users can be aware of the cultural difference in other users' online self-presentation, though cultural difference is not the only factor that affects users' perception. Users also tend to build a positive perception of users who show similar cultural characteristics with them. This infers that cross-cultural interactions may face some obstacles.

Study 2 aims to focus on cross-cultural social networking, in order to see whether users engage in cross-cultural social networking (existence) and whether cross-cultural social networking is associated with social capital (benefit). Social capital, representing the value derived from networked relationships, was used to test the benefits of cross-cultural social networking. Facebook, a platform that may contain potential cross-cultural interactions among international university students, was chosen to be investigated. Firstly, a survey research extended previous findings by showing that greater intensity of Facebook use for cross-cultural interaction is positively associated with a perceived increase in cross-cultural social capital. A follow-up interview research revealed that the potential benefits of cross-cultural Facebook interactions depend both upon the cultural background of the participants and the type of relationship they have with the person they interact with. The insight gained was that the intensity of cross-cultural Facebook use

contributes to the perception of cross-cultural social capital because interacting with cross-cultural Facebook friends leads to directly observable benefits.

5.2 Background

Before presenting the hypotheses, this section briefly introduces some background material to remind the audience of some key concepts.

Social capital, arising from everyday interactions between people, can bring mutual benefits as it facilitates information flow, reciprocity and trust building (Lin, 2001a; Adler & Kwon, 2002). These can be used as resources for further social action, and in the pursuit of individual goals (Coleman, 1988). According to Putnam (2000), bonding social capital arises from dense and close friendship networks consisting of homogeneous groups of people; whereas bridging social capital arises from sparse and open friendship networks consisting of heterogeneous groups of people (see also Burt, 1992). With the widespread use of Internet technology as a means of communicating with other people, researchers began looking at the possibility that such communication might also contribute to one's social capital. In particular, social networking sites have emerged that support various kinds of interests and practices centring upon users' networks of social relationships (Boyd & Ellison, 2007). Ellison et al. (2007) looked at how Facebook use related to benefits that are typically associated with social capital among student users. They assumed that social capital represented by people's Facebook networks could provide different forms of benefits to individuals, thus tested the relationship between Facebook use and these benefits. Ellison et al. (2007) proposed *maintained* social capital

as a specific form of bridging social capital, in order to represent one's capability to mobilize support or action with others within a "previously inhabited" network. From their research, it is clear that the intensity of Facebook use is positively associated with a perceived gain in all three forms of social capital. Similar results were found by a study which analyzed Beehive, the internal social networking site used amongst IBM employees. That research also suggested that the use of social networking sites within organizations can let users feel they receive benefit from their online social capital within social networking sites (Steinfeld et al., 2009).

Social networking sites offer the potential to network with people from many different cultural backgrounds (Jiang et al., 2009). This may be particularly important in communities that are inherently multi-cultural, such as students in an international university or employees in a multi-national company. However, the question remains whether the benefits of online social networking extend to cross-cultural social networking, as none of the studies mentioned above made explicit distinctions between the two. The questions the researcher would like to answer are, on one hand, whether individuals use social networking sites as a tool for managing their cross-cultural interactions, and, on the other hand, whether those interactions generate benefits associated with social capital. In order to answer these questions, the researcher asked participants in a survey to what extent they gained certain benefits through their cross-cultural social networking activities on Facebook, similar to the study by Ellison et al. (2007). The researcher then investigated, in an interview study, the nature of the relationship between cross-cultural Facebook use and the perceived benefits. The

advantage of combining a survey study with an interview study is that the researcher can quantitatively establish the existence of these relationships and then qualitatively examine the nature of those relationships.

5.3 Survey Study

This section presents the first part of research – the survey study.

5.3.1 Hypothesis

In today's globalised world, social media such as Facebook have the potential to substantially increase the amount of online interactions among people who do not share the same cultural background. However, it is difficult to test the effectiveness of these cross-cultural online interactions (Adler & Graham, 1989). As social capital reflects the outcomes of the interactions via networked relationships, it seemed to be a good candidate for understanding the benefits that arise from cross-cultural interactions. The researcher argues, therefore, that there is a need to introduce the idea of cross-cultural social capital that looks at the value of cross-cultural interactions.

Generating social capital from people with different cultural backgrounds is, typically, advantageous, as one opens up to new people, new knowledge and new experiences (Williams, 2006). By keeping relationships with cross-cultural ties, individuals may have a broader range of connections to people who are not from their regular groups of friends. All these benefits could be considered as cross-cultural bridging social capital. Through cross-cultural relationships, individuals can possess more information channels; this

allows them to understand other cultures, to realize how people unlike them think and to feel a part of a larger multi-cultural community. This kind of cross-cultural relationship may be loose, but it could also be pervasive in the age of technology (Quan-Haase & Wellman, 2004). Research has already shown that Facebook can bring people with similar attributes and common interests together, regardless of their cultural backgrounds (Lewis et al., 2008). Ellison et al.'s (2007) research showed that across three measurements of social capital, bridging social capital was most predictably associated with Facebook use. The researcher therefore expected that cross-cultural interaction on Facebook contribute to cross-cultural bridging social capital.

H1: The intensity of cross-cultural Facebook interaction (investment) will be positively associated with individuals' perceived cross-cultural bridging social capital.

Cross-cultural relationships may bring not only cross-cultural bridging social capital, but also cross-cultural bonding social capital. For instance, research on business networks among Chinese and non-Chinese collaborators in China, found that non-Chinese collaborators need to build firm and strong networks with Chinese partners in order to ensure better cooperation. This is determined by the Chinese “guanxi” relationship, in which the “bonding” connection is heavily advocated (Bjorkman & Kork, 1995). It appears therefore that we cannot ignore the possibility that cross-cultural bonding relationships exist. Research shows that most people tend to build their Facebook connections from offline relationships. Relationships which are based on common experience (i.e. officemates and classmates) may be considered as part of a “bonding network”, even when those people are from different cultures. The researcher expected

that their Facebook connections can help them find someone from a different culture to talk to when they feel lonely and to turn to for advice when they make important decisions (Williams, 2006); all of which reflect the benefits of cross-cultural bonding social capital. The second hypothesis is therefore:

H2: The intensity of cross-cultural Facebook interaction (investment) will be positively associated with individuals' perceived cross-cultural bonding social capital.

Cross-cultural relationships can often be developed during temporary co-location, which means that separation is also common when someone has to go back to their homeland. For example, when overseas students graduate, only a few of them will stay in the hosting countries. Most of them may have to return to their home countries. All may want to keep relations with their former classmates. In this situation, cross-cultural friends are geographically distributed. Cross-cultural interaction therefore can also occur within *maintained* relationships. One would expect that the use of Facebook for cross-cultural interaction can help users better maintain their cross-cultural relationships. For example, Facebook allows students to keep in touch with and receive information from their previously co-located friends or even ask them for favours. This leads to the third hypothesis:

H3: The intensity of cross-cultural Facebook interactions (investment) will be positively associated with individuals' perceived cross-cultural maintained social capital.

Cross-cultural relationships are difficult to initiate, develop and maintain because of a series of factors such as differences in values, interest, personality, cultural knowledge

and inter-group attitudes (Adler & Graham, 1989). People will therefore only invest in cross-cultural relationships if they have a positive attitude towards other cultures. These attitudes are shaped by such factors as past experience of cross-cultural interactions, their confidence to interact cross-culturally, their attentiveness towards cross-cultural interaction, their knowledge of other cultures and their perception of the importance of cross-cultural relationships (Chen & Starosta, 2000). Internet technology was found to help lower the barriers of cross-cultural communication such as language and opportunities and encourage communication (Huysman & Wulf, 2006). Ellison et al. (2007) argued that Facebook was particularly effective in helping people to make use of their weak relationships. The barriers to cross-cultural interactions are therefore expected to be lowered by online social networking, as they may persuade people with a less positive attitude towards other cultures to invest in their cross-cultural relationships, in a desire to obtain cross-cultural social capital from their cross-cultural weak relationships. For this reason, the researcher expected that:

H4: The relationship between intensity of cross-cultural Facebook interaction and perceived cross-cultural social capital will vary depending on a person's cross-cultural sensitivity.

To test Hypotheses 1-4, "Cross-cultural social capital" was treated as the dependent variable, and the "intensity of cross-cultural Facebook interaction" and other factors, such as "demographic information", "cross-cultural sensitivity", and "intensity of general Facebook use" as independent variables in a correlational design. Among the independent variables, the researcher specifically focused upon the "intensity of cross-cultural

Facebook interaction” by using regression analysis to examine the significance of it as a predictor of the dependent variables.

5.3.2 Method

5.3.2.1 Participants

Data was gathered from 200 participants - 100 with British cultural background and 100 with Chinese cultural background. All participants were or had been students at the University of Manchester. The numbers of male and female participants were nearly equal (91:109). For most British participants (90), Facebook was the most important social networking site, whereas nearly half of the Chinese participants reported that they mainly used Chinese social networking sites. Most British participants (73) lived in University accommodation, whereas nearly half the Chinese participants lived off campus. Otherwise the British and Chinese participants were similar. In particular, British and Chinese participants were of similar ages ($t=-1.292$, $df=198$, $p>.05$), and had spent similar lengths of time at the University ($t=.891$, $df=198$, $p>.05$) (Table 5.1).

Table 5.1 Demographic Information of Participants

	Mean or %		S.D.	
	British	Chinese	British	Chinese
Nationality				
Gender				
Male	52	39		
Female	48	61		
Age	22.9	23.6	4.491	3.032
Years spent at the university	3.05	2.84	1.507	1.813
Local Residence				
On campus	73	58		
Off campus	27	42		
Education				
Undergraduate	50	41		
Postgraduate Taught	31	39		
Postgraduate Research	15	14		
Alumni	4	6		
FB as the most important SNS	90	22		
FB as the second most important SNS	6	53		

5.3.2.2 Materials

In the questionnaire, demographic information such as gender and education was firstly sought, followed by a series of questions asking about their general Facebook use, the number of cross-cultural Facebook friends the participant had, and the percentage of their cross-cultural interactions on Facebook (Table 5.2).

Table 5.2 Participants' General Facebook use and Cross-cultural Facebook interactions

Question	British		Chinese		Difference between British and Chinese (Mann-Whitney U test, n1=100, n2=100)
	Median	Mode	Median	Mode	
How long have you been using FB?	More than 2 years	More than 2 years	Half a year to one year	One year to two years	U=2112, p<.001
About how many total friends do you have on FB?	151-200	More than 200	51-100	11-50	U=1839, p<.001
About how many friends from culturally different countries do you have on FB?	26-50	26-50	26-50	26-50	U=4383, p>.05
In the past week on average approximately how many minutes per day have you spent on FB?	31-60	16-30	16-30	less than 15	U=3089, p<.001
What percentage of this time is spent on interacting with friends from culturally different countries?	11-25%	11-25%	11-25%	<10%	U=4691, p>.05

The “intensity of cross-cultural Facebook interaction” was measured by adapting part of Ellison et al.’s (2007) Facebook Intensity Scale to specifically address cross-cultural interaction. For example, the item “Facebook is part of my everyday activity” from Ellison et al.’s (2007) original scale was changed to “Interacting with people from culturally different countries is part of my everyday activity on Facebook”. The researcher wrote instructions and gave examples about the term “someone from culturally different countries”. Following the literature review, a distinction was made between

Western (e.g. UK, Germany, U.S. and Holland) and Eastern cultures (e.g. China, Korea and Malaysia); all the other cultures were categorized as “other cultures” (e.g. Africa, South America, East Europe and Middle East). For example, a participant from China was instructed to consider their friends from Western and Other cultures as cross-cultural friends. They were advised to judge their own cultural background based on the society they were raised in (Fiske, 2000). Similar to Ellison et al.’s study, the intensity of cross-cultural Facebook interaction can be interpreted as a measure of the investment people put in their cross-cultural Facebook interactions in terms of both time and emotion (Table 5.3).

Table 5.3 Summary statistics for the rating of intensity of cross-cultural Facebook interaction

Individual Items and Scale (Cronbach’s alpha = .917)	Mean (3.23)	S.D. (.874)
Intensity of cross-cultural FB use (1=strongly disagree – 5=strongly agree)		
1. I’m proud to tell people that I interact with friends from culturally different countries on FB.		
2. The number of people who are from culturally different countries within my FB network keeps increasing.		
3. Friends from culturally different countries have become important parts of my FB life.		
4. I feel the groups and networks I have joined on FB always include people from different cultural background.		
5. I would be sorry if I only have friends from my own culture within my FB network.		
6. Interacting with people from culturally different countries is part of my everyday activity on FB.		

Cross-cultural sensitivity was measured using Chen and Starosta’s (2000) Intercultural Sensitivity Scale. This scale included: 7 items for interaction engagement (e.g. “I enjoy interacting with people from different cultures”), and 5 items for interaction confidence (e.g. “I find it very hard to talk in front of people from different cultures”). The answers to these questions were reported on a 5-point Likert-scale with 1 equalling “strongly disagree” and 5 equalling “strongly agree”. Chen and Starosta (2000) reported that their scale showed high internal consistency with .86 and .88 reliability coefficients in two of

their studies. Moreover, the scale was predictive of intercultural effectiveness and attitudes toward intercultural communication (Table 5.4).

Table 5.4 Summary statistics for subscales of Intercultural Sensitivity

Subscales	Cronbach Alpha	Mean		S.D.	
		British	Chinese	British	Chinese
Interaction engagement scale	.748	3.363	3.261	.55	.53
Interaction confidence scale	.746	3.586	3.156	.52	.62

“Perceived cross-cultural social capital” was measured by three dimensions: bridging cross-cultural social capital, bonding cross-cultural social capital and maintained cross-cultural social capital. The terms “Facebook network” and “someone from culturally different countries” were added to the original scales, as used by Williams (2006) and Ellison et al. (2007), to make them specific for cross-cultural relationships on Facebook. For example, the item “There is someone I always trust to help solve my problems” from Williams’ (2006) original scale was changed to “There is someone from a culturally different country within my Facebook network I always trust to help solve my problems”.

After a factor analysis of these items (using Principal Components with Varimax rotation), the researcher selected 6 items for bridging cross-cultural social capital, 7 items for bonding cross-cultural social capital, and 5 items for maintained cross-cultural social capital. The resulting three scales had a minimum factor loading of .707 of the included items, and none of these items loaded more than .325 on any of the other factors (see Table for a full description of factor loadings) (Table 5.5).

Table 5.5 Factor analysis of Cross-cultural Social Capital (CCSC) Scales

Individual Items and Scales	Mean	S.D.	Factor Loadings		
			Bonding CCSC	Maintained CCSC	Bridging CCSC
Bridging CCSC (Cronbach's alpha = .88)					
1. Interacting with people from culturally different countries within my FB network helps me to stay in touch with what is new and popular.	3.67	.862	0.122	0.186	0.776
2. Interacting with people from culturally different countries within my FB network reminds me that everyone in the world is connected.	3.54	.879	0.134	0.125	0.758
3. I am happy to help out someone from culturally different countries within my FB network.	3.42	.959	0.258	0.197	0.702
4. Talking with people from culturally different countries within my FB network makes me curious about other places in the world.	3.53	.879	0.103	0.161	0.783
5. Interacting with people from culturally different countries within my FB network makes me feel like part of a larger multi-cultural community.	3.47	.890	0.325	0.089	0.736
6. Interacting with people from culturally different countries within my FB network makes me interested in what people unlike me are thinking.	3.54	.879	0.240	0.160	0.749
Bonding CCSC (Cronbach's alpha = .90)					
1. There is someone from a culturally different country within my FB network who would be a good job reference for me.	3.08	.915	0.707	0.186	0.225
2. I can organize some of my close friends within my FB network, who are from culturally different countries, to take part in a protest.	2.71	1.006	0.737	0.124	0.165
3. There is someone from a culturally different country within my FB network who would put their reputation on the line for me.	2.89	1.004	0.714	0.177	0.270
4. There is someone from a culturally different country within my FB network who I always trust to help solve my problems.	2.89	1.049	0.813	0.194	0.149
5. When I feel lonely, there is someone from a culturally different country within my FB network who I can talk to.	2.87	1.019	0.788	0.295	0.131
6. If I need an emergency loan of £50, I think I can turn to someone from a culturally different country within my FB network.	2.56	1.069	0.734	0.080	0.174
7. I think there is someone from a culturally different country within my FB network I can turn to for advice about very important decisions.	2.97	1.089	0.793	0.245	0.175
Maintained CCSC (Cronbach's alpha = .93)					
1. After graduation, I'd be able to find out about events in another country from university acquaintances who are from culturally different countries on FB.	3.43	.980	0.202	0.858	0.140
2. If I needed to, via FB, I could ask university acquaintances who are from culturally different countries to do a small favour for me after graduation.	3.30	.968	0.202	0.870	0.177
3. On FB, I would be able to get in touch with university acquaintances who are from culturally different countries if travelling to a different country after graduation.	3.27	.996	0.206	0.821	0.196
4. After graduation, I would be able to find information about a job or internship from university acquaintances who are from culturally different countries on FB.	3.37	1.013	0.233	0.829	0.225
5. After graduation, it would be easy to find university acquaintances from culturally different countries to invite to my university reunion on FB.	3.37	.998	0.193	0.871	0.161

5.3.3 Results

General Facebook use

British participants had generally used Facebook for much longer than Chinese participants. This may be because some Chinese overseas students started their Facebook use only after they arrived in the UK. British participants also tended to have more Facebook friends than Chinese participants, and they spent more time using Facebook. However, British and Chinese participants had similar numbers of cross-cultural Facebook friends, from which the researcher can infer that cross-cultural relationships constitute a larger proportion of Chinese users' networks. The latter two differences may reflect the fact that most Chinese participants did not use Facebook as their main social networking site, whereas almost all British participants did. This suggests that many Chinese participants, unlike British participants, use Facebook specifically for their cross-cultural relationships.

Intensity of cross-cultural Facebook interaction. (Cronbach's Alpha = .917).

Participants' scores ranged from 6 to 30, with the median 20. It shows that positive and negative answers were well distributed.

Cross-cultural sensitivity (Cronbach's alpha: confidence = .748; engagement = .746).

Mean scores on these scales were calculated by adding the ratings, as recommended by the original authors. British participants were more confident about interacting with people from other cultures than Chinese participants ($t= 5.296$, $df=198$, $p<.001$); however there was no difference in cross-cultural engagement between British and Chinese participants ($t= 1.315$, $df=198$, $p>.05$).

Table 5.6 Regression analyses of three forms of cross-cultural social capital (CCSC) (*= p<.05; **= p<.01; ***= p<.001)

Independent /Dependent	Bridging CCSC		Bonding CCSC		Maintained CCSC	
	<i>Scaled Beta</i>	<i>P</i>	<i>Scaled Beta</i>	<i>P</i>	<i>Scaled Beta</i>	<i>P</i>
Basic model						
Gender -Male	.028		-.055		-.040	
Nationality - British	-.042		-.449	***	-.098	
Residence – off campus	.076		-.019		-.151	*
Age	.013		-.062		-.024	
Year of Study	.005		.043		.023	
Education – Postgraduate Taught	-.002		.018		-.097	
Education - Postgraduate Research	-.081		.025		.045	
Education - Alumni	-.027		.027		.154	
Duration of usage on FB	-.050		-.058		.110	
Number of friends on FB	.091		.065		.138	
Frequency of FB use	-.025		-.013		-.081	
Intercultural Engagement	.474	*	.660	***	.480	*
Intercultural Confidence	.127		.079		.016	
Extended model						
Intensity of cross-cultural FB interaction	.931	**	1.009	***	.337	**
Interaction models						
Intensity of cross-cultural FB interaction *Intercultural Engagement	-.693		-.981	*	-.936	*
Intensity of cross-cultural FB interaction *Intercultural Confidence	.730	.064	.286		.219	

Predicting perceived cross-cultural social capital

In order to test Hypotheses 1-3, three separate multiple regression analyses were carried out with perceived bridging, bonding, and maintained cross-cultural social capital as the dependent variables (Table 5.6). First, the independent variables relating to “demographic factors”, “general Facebook use”, and “cross-cultural sensitivity” were entered using the ENTER method (the basic model), and then the “intensity of cross-cultural Facebook use” was added (extended model). Collinearity was examined to judge whether correlations between the independent variables were problematic. All tolerance values were greater than .30 and all VIF values were less than three, which makes interpretation

possible (Dugard et al., 2010). Hypothesis 4 was tested in three pairs of additional analyses with the three forms of social capital as dependent variables. This time the extended model was entered first, while the interaction models were entered next. The interaction models included the multiplication of participants' cross-cultural sensitivity with the intensity of cross-cultural Facebook use (see Table 5.5 of all the beta values).

Perceived bridging cross-cultural social capital.

The basic model accounted for nearly 23 % of the variance in students' perceived bridging cross-cultural social capital (adjusted $R^2=.23$, $F[13, 186]=5.636$, $p<.001$), with intercultural engagement the only factor that was positively associated with bridging cross-cultural social capital (Scaled beta=.474, $p<.05$). After entering the intensity of cross-cultural Facebook interaction as a factor into the model, it raised the adjusted R^2 to .345 (R^2 change = .109, $F[1, 185]=33.080$, $p<.001$). The key finding is that after controlling for demographic information, participants' general Facebook use and cross-cultural sensitivity, the intensity of cross-cultural Facebook interaction was positively associated with bridging cross-cultural social capital. This supports Hypothesis 1. This association was not mediated by cross-cultural sensitivity, as there was no significant change in the R^2 between the extended model and the interaction models (R^2 change =.010, $F[1, 184]=2.959$, $p>.05$).

Perceived bonding cross-cultural social capital

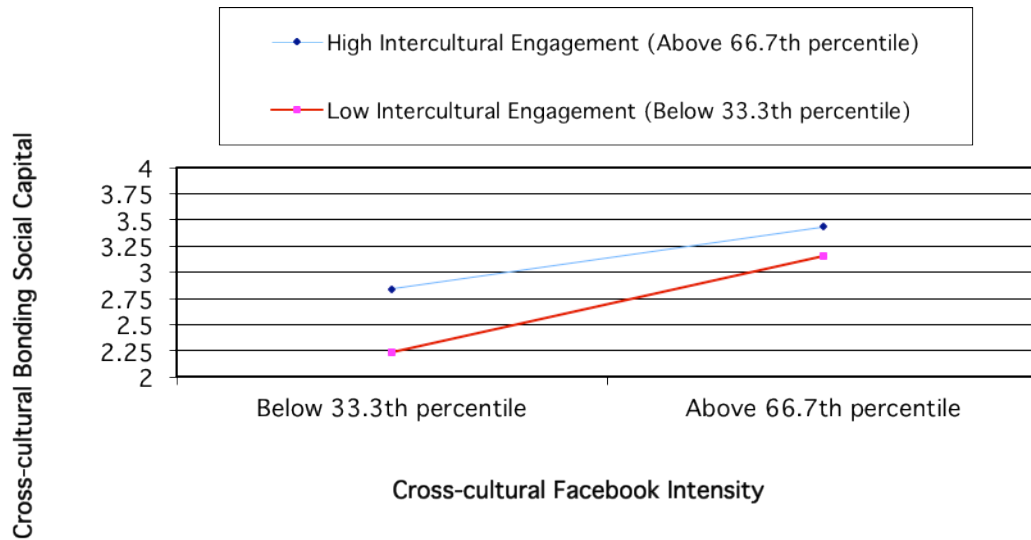
The basic model accounted for 32% of the variance in students' perceived bonding cross-cultural social capital (adjusted $R^2=.315$, $F[13, 186]=8.051$, $p<.001$). In particular, being

British was associated with lower bonding cross-cultural social capital (Scaled beta=-.449, $p<.001$), while intercultural engagement was positively associated with bonding cross-cultural social capital (Scaled beta=.660, $p<.001$). After entering the intensity of cross-cultural Facebook interaction as a factor into the model, it raised the adjusted R^2 to .375 (R^2 change=.059, $F[1, 185]=18.814$, $p<.001$). The key finding is that after controlling for demographic information, participants' general Facebook use and cross-cultural sensitivity, the intensity of cross-cultural Facebook interaction significantly contributed to bonding cross-cultural social capital, supporting hypothesis 2.

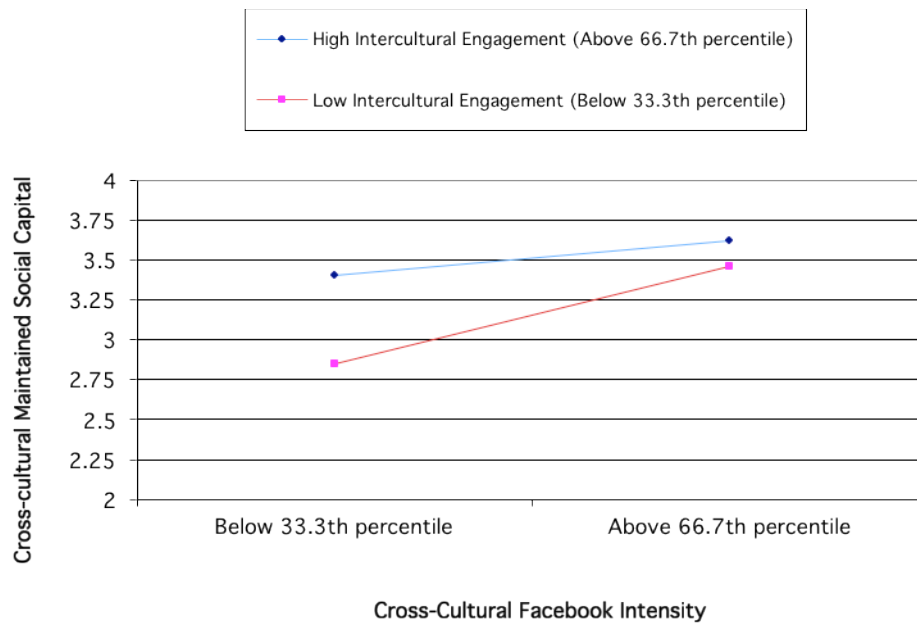
However, the association between the intensity of Facebook use and bonding cross-cultural social capital was mediated by intercultural engagement, as the difference between the extended model and the interaction model was also significant (R^2 change=.019, $F(1, 184) = 6.327$, $p<.05$). This partially supports Hypothesis 4. The interaction effect is demonstrated in Figure 5.1 (a), which shows that participants who reported a low level of intercultural engagement (below the 33.3th percentile) have a greater association between the intensity of cross-cultural Facebook use and bonding cross-cultural social capital, than participants who reported a high level of intercultural engagement (above the 66.7th percentile). The link between their investment in cross-cultural Facebook use and their perceived bonding cross-cultural social capital may thus be stronger for people with lower intercultural engagement, than for people with higher intercultural engagement. The researcher has to be cautious interpreting this result, however, because the linearity of the bonding cross-cultural social capital scale cannot be assumed.

Figure 5.1 Interaction between intensity of cross-cultural Facebook interaction and cross-cultural sensitivity on cross-cultural bonding and maintained social capital.

(a) Interaction between intensity of cross-cultural Facebook interaction and cross-cultural sensitivity on bonding cross-cultural social capital



(b) Interaction between intensity of cross-cultural Facebook interaction and cross-cultural sensitivity on maintained cross-cultural social capital



Perceived maintained cross-cultural social capital.

After entering all the independent factors, the model accounted for nearly 9 % of the variance in students' perceived bridging cross-cultural social capital (adjusted $R^2=.090$, $F[13, 186]=2.520$, $p<.001$). In particular, living off-campus was associated with lower amounts of maintained cross-cultural social capital (Scaled beta $=-.151$, $p<.05$), whilst intercultural engagement was positively associated with maintained cross-cultural social capital (Scaled beta $=.480$, $p<.05$). Entering the intensity of cross-cultural Facebook use as a factor into the model raised the adjusted R^2 to $.156$ (R^2 change $=.065$, $F[1, 185]=15.365$, $p<.001$). The key finding is that after controlling for demographic information, participants' general Facebook use and cross-cultural sensitivity, the intensity of cross-cultural Facebook interaction significantly contributed to bridging cross-cultural social capital, supporting hypothesis 3.

However, the association between the intensity of cross-cultural Facebook use and maintained cross-cultural social capital was also mediated by intercultural sensitivity as the difference between the extended model and the interaction model was significant (R^2 change $=.018$, $F(1, 184) = 4.215$, $p<.05$). This also partially supports hypothesis 4. The interaction effect is presented in Figure 5.1(b), which shows that low intercultural engagement increases the strength of the association between the intensity of cross-cultural Facebook use and maintained cross-cultural social capital. Similarly to bonding cross-cultural social capital, the link between their investment in cross-cultural Facebook use and their perceived maintained cross-cultural social capital is stronger for people with lower intercultural engagement, than for people with higher intercultural engagement.

Again, the linearity of the maintained cross-cultural social capital scale cannot however be assumed.

5.3.4 Discussion

The results of this survey research provide support for Hypotheses 1-3; that is, the intensity of cross-cultural Facebook use is positively associated with cross-cultural bridging, bonding and maintained social capital. It accounted for a bigger proportion of the total variance in the perception of bridging (34.5%) and bonding social capital (37.5%), and a smaller proportion of the total variance in the perception of maintained social capital (15.6%). In Ellison et al.'s (2007) study, they found the bonding social capital model only accounted for 22% of the variance, much less than the 46% in their bridging social capital model. In this study, the bonding social capital model accounted for 37.5% of the variance, which was even greater than the 34.5% in the bridging social capital model. This could be explained in two ways. Firstly, Ellison et al.'s (2007) study included mainly White student samples in one US university, whereas this study included both British and Chinese students in one British university. Chinese participants may have used Facebook to gain more benefits of bonding social capital from cross-cultural friends than British participants. Secondly, culture is a boundary, which makes it difficult to reach cross-cultural weak relationships. In light of this, cross-cultural interactions may primarily be limited to interactions with close friends, who are considered to provide more bonding social capital.

Other factors also played a role. The three forms of perceived cross-cultural social capital

were related to participants' intercultural engagement. This suggests that Facebook users who are more capable in engaging in cross-cultural interactions perceive a greater amount of cross-cultural bridging, bonding and maintained social capital, regardless of the time spent on maintaining cross-cultural relationships or the number of friends from different cultures. Of course, causality cannot be assumed; it seems equally plausible that greater intercultural engagement may lead to a greater perception of social capital through cross-cultural social networking as the other way around. The latter would offer the intriguing possibility that through Facebook and cross-cultural social networking, people become more susceptible to the advantages offered by cultural differences. If that were the case, the world might become a better place as the use of social networking sites continues to grow. Hypothesis 4 is only partly supported, as the research found that the relationship between participants' intensity of cross-cultural Facebook use and the amount of cross-cultural bonding and maintained social capital perceived were the only ones mediated by intercultural engagement (but not confidence).

By looking at the other independent variables in the regression analysis, people from the UK had negative relationships with perceived cross-cultural bonding social capital. British participants reported less tendency of receiving cross-cultural bonding social capital on Facebook. From this perspective, one would expect that British participants may be less inclined to admit that they need other people to support them on Facebook. Similar results reveal that participants who lived off campus were negatively associated with perceived cross-cultural maintained social capital. Research (Ellison et al., 2006; Boyd & Ellison, 2007) suggests that the majority of Facebook relationships start from

offline relationships, given that face-to-face contact provides greater opportunity for individuals to actively get to know one another. With this as a basis, there would be an easier transition when moving the relationship online. Ellison et al.'s (2007, p.1162) research also showed "*their participants overwhelmingly used Facebook to keep in touch with old friends to maintain or intensify relationships by some form of offline connection such as dormitory proximity or a shared class*".

This survey research identified the positive associations between users' perception of cross-cultural social capital and users' intensity of cross-cultural social networking on Facebook; however, it left a few questions unanswered. This research only tried to understand user's perceived social capital, rather than actual observed benefits. This survey research also cannot tell the causal relationships between cross-cultural social capital and cross-cultural social networking due to its correlational design. Furthermore, we know there are associations between cross-cultural social capital and cross-cultural social networking; however, we do not know how they connect with each other. In light of this, interviews were carried out to gain more insight into the exact nature of these findings.

5.4 Interview Research

5.4.1 Method

Participants

Interviewees in this study consisted of 30 Facebook users (15 British and 15 Chinese), all of whom were selected from the participants who had participated in the survey study.

All the interviewees were young adults, aged between 20 and 33 years old, which is representative of the main composition of student Facebook users (18-34 age group covers majority Facebook users). There was no difference in the average age of British and Chinese interviewees. Their education levels ranged from undergraduates through to PhD students.

All 15 Chinese interviewees had Chinese ethnicity, were brought up in China, but were studying in the UK (one 1st year undergraduate, one 2nd year undergraduate, eight Masters Students, and five PhD candidates). 12 of them had been based in the UK for 3-4 years. Only one had lived in the UK for less than 1 year, while two had been in the UK for 2 years. There were 9 female interviewees and 6 male interviewees in the Chinese sample.

All 15 British interviewees were brought up in the UK and had been living in the UK since they were born (two 2nd year undergraduate, one 3rd year undergraduate, four Masters students, and eight PhD candidates). In terms of ethnicity, 12 were white British, 1 was of mixed race, 1 was British Born Chinese (BBC), and 1 was British Born Ethiopian (BBE). There were 4 female interviewees and 11 male interviewees in the British sample.

All the Chinese interviewees reported that they had more than one social networking platform account. 5 used Facebook as their main social networking site, but 5 used Xiaonei (a Chinese social networking site), 4 used Q-Zone (another Chinese social networking site), and 1 used Cyworld (a Korean social networking site) as their main

social networking platform. 4 interviewees reported logging onto Facebook only when necessary (e.g. every three months or so). 4 interviewees said that they checked Facebook weekly; nevertheless, the rest of the Chinese interviewees reported more frequent Facebook use. All Chinese participants mentioned the reason behind joining Facebook was to connect with cross-cultural friends, although in-cultural friends were also important to them.

All the British interviewees reported using Facebook as their main social networking platform, although some of them had accounts on two different social networking platforms (e.g., Facebook and LinkedIn, Facebook and Hi5). All British interviewees reported using Facebook for at least 1 or 2 days a week. 5 interviewees said that they spent their spare time such as coffee breaks on Facebook, with a further 5 stating they primarily use Facebook at the weekends, given their lack of free time during the week. 3 interviewees reported using Facebook intentionally to organize their social lives. 2 interviewees reported logging onto their accounts multiple times a day by using mobile phone applications. Most British participants regarded peer pressure as the main reason for joining Facebook. They said their reason for adding people from different cultures was because they had some level of a relationship with them in real life (e.g. classmates, meet socially, live in the same dormitory, doing part-time job together, a friend's friend).

Procedure

In recruiting interviewees, the first step followed purposive sampling. British and Chinese participants of the survey study received an e-mail asking about their general

Facebook use and cross-cultural Facebook interactions. Ones who reported having both in-cultural and cross-cultural Facebook friends were identified as the potential interviewees. Attention was also paid to their frequency of Facebook use in order to choose interviewees representing a wider level of Facebook use. The second step was to use snowball sampling. The researcher chose the ones who were more familiar with the researcher and the friends they introduced as the potential interviewees. This is important because talking about their Facebook use concerned many private issues. It can be difficult to talk about private feelings in front of a stranger. In the third step, these potential interviewees received a further e-mail to check their availability for interviewing. 30 interviewees completed the interviews between January 2010 and April 2010. All the interviews were conducted in a meeting room with a computer provided by the university. The environment was comfortable. The computer was used for the interviewees to log onto their Facebook and give examples during their comments. Each interviewee was provided with a cup of tea and had a short chat with the researcher before the interview. Each interviewee was compensated £10 for their contribution to the study.

The interviews were semi-structured and developed in both Chinese and English. Interviews were conducted in Chinese with Chinese participants, and translated into English during transcription. Interviews were conducted in English with British participants. Every interview lasted 60 to 90 minutes, with the length of time dependent on the interviewee's personal experiences on Facebook. After the interviews, the researcher remained in contact with the interviewees to confirm further information such

as their perception of the definition of coding.

Before the interview, interviewees filled out a 10-minute questionnaire, in order to help the researcher understand their Facebook friend network. The questionnaire asked participants to do a self-check about their Facebook friends by estimating the number of relationships which could be considered as cross-cultural strong relationships, cross-cultural weak relationships, in-cultural strong relationships and in-cultural weak relationships. To distinguish between strong and weak relationships, the researcher referred to Granovetter's (1973) definition in which the level of intimacy, the amount of interaction and the degree of trust in the relationship were considered. Strong relationships were not limited to the ones they were currently interacting with frequently, but also the ones they had built up in the past. All the other relationships were defined as weak in this study. The researcher justification for asking them to think about different relationships was based on three reasons: 1) in a few pilot interviews, the researcher found the interviewees mentioned interaction with different relationships differently; 2) asking them to think about different relationships provided a fuller picture of their friendship network (otherwise they may mainly talk about the interactions with some friends – part of their network); and 3) from the literature review, there is a big debate on the association between bridging, bonding social capital and strong, weak relationship networks; looking at these relationships in people's online social network may help the researcher to understand more about this issue.

The distinction between cross-cultural and in-cultural relationships followed the one used

in the survey study. Three cultures were introduced: Western, Eastern and Other culture. British interviewees were to consider people from Eastern and other cultures as their cross-cultural friends; subsequently, Chinese interviewees were to consider people from Western and other cultures as their cross-cultural friends. This ensured that the study kept focus upon cultural differences, and not the national differences between British and Chinese people. When an interviewee identified their culture, they were advised to judge it based on the society they have been raised in (Fiske, 2000). For example, in this study, there was a British Born Chinese participant. He was categorized as British – with a Western cultural background because he was brought up in a Western society.

At the beginning of the interview, the researcher briefly asked about the interviewee's general Facebook use, such as the reason for joining, habits, and frequency of Facebook use. The most important questions of the interviews were: 1) *What you do with friends on Facebook?* They were asked to provide examples as to who they did this activity with. In giving examples, they were asked report the nature of relationship (i.e. cross-cultural strong, weak or in-cultural strong, weak); 2) *What benefits can you get from doing this activity;* and 3) *Why do you do this activity?*

These questions allowed for a direct assessment of the links between Facebook activities, benefits gained from these activities and how this depends on the nature of the relationships. The researcher adjusted the questions based on the situations in different interviews because different interviewees reported different stories. Nevertheless, a technique of asking “why why why” questions for in-depth interviews was applied during

the interviews. It enabled the researcher to dig out the reasons inside. Moreover, it could help the researcher to easily identify causal relationships.

Before the data analysis, voice recorded data were transcribed into a written format. The data for British interviewees were English and were directly transcribed. The data for Chinese interviewees were Chinese and were carefully translated by the researcher.

Data Analysis

1. The first step was coding the data line by line to produce concepts (i.e. using short words or phrases to represent the original data). The researcher then grouped similar concepts together into categories until no new category emerged. Meanwhile, the researcher gave a few interviewees' data to two British PhD candidates and invited them to analyze these data. The names in the data were hidden during their analysis in order to keep the data confidential. There were two reasons for inviting two British PhD colleagues: it confirmed that the researcher understood British interviewees' wording correctly and it enabled the researcher to discuss the coding adopted, in order to check the reliability of these categories.

At this step, the data for British and Chinese interviewees were combined for analysis. Some previous studies have already looked the difference in general motivation and general Facebook interactions between Western and Eastern users. They directly separated two groups of users' data and summarized different categories for different cultural groups, representing the cultural differences. However, in this research, the

researcher decided to summarize the categories commonly reported by British and Chinese interviewees and see how the associations between these categories are different based on their answers.

The main researcher and two British PhD colleagues' coding were similar. They identified a number of Facebook interactions: sharing, observing, leaving messages, photo tagging, group activities, chatting, and discussing. However, these types of interactions were too complex and nothing could be drawn from there. After discussion, the researcher decided to further abstract these categories together by categorizing them based on the number of people involved in each type of interaction: observing (only one person, viewing their friends' updates); communicating (two persons, one-to-one communication, no matter if leaving message on the wall or chat privately, or photo tags); grouping (more than two person, no matter if in photo tags or communicating).

The three researchers' coding for the benefits of Facebook interaction was also complex. They identified: hearing new information, enlarging friend circle, getting support, and accessing to limited resources to name but a few. However, there was no clear clue for classifying these categories. After careful discussion, the researcher found some of these categories were about bringing new information and resources, reflecting the benefits of bridging social capital; and some of these categories were about exclusive support and access, reflecting the benefits of bonding social capital. In other words, they were very similar to the dimensions of bridging and bonding social capital (Williams, 2006). The researcher therefore decided to use a top-down coding method to link these categories

under main categories – the benefits of bridging social capital and the benefits of bonding social capital.

2. The codes were adjusted until a common agreement within the discussion group for “Facebook interaction” and “Benefits of social capital” was reached. The researcher could identify “what” users do and “what” can they get. However, the researcher also needed another element - “who” - in order to understand “what” users do, with “whom” to get “what kind of benefits”. This was achieved by categorizing the degree of relationships into cross-cultural strong relationship and cross-cultural weak relationship. When interviewees mentioned their stories with friends, they mentioned what kind of relationship it was, thus making it is easy to identify cross-cultural strong and weak relationships.

3. The above procedures analyzed British and Chinese interviewee data together. Three main categories relevant to this study were identified: types of Facebook interactions, types of relationships and benefits of Facebook interactions. Under types of Facebook interactions, there were three subcategories: observing, communicating and grouping. Under types of relationships, there were two subcategories: cross-cultural strong relationships and cross-cultural weak relationships. Under types of benefits, there were two categories: benefit of bridging social capital and benefit of bonding social capital. Beneath “benefit of bridging social capital”, subcategories included: broaden views, find new resources, enlarge friend circle and diffuse reciprocity. Beneath “benefit of bonding social capital”, subcategories included: substantive support, share limited resource and

mobilizing solidarity. This step analyzed British and Chinese interviewee data separately by bringing these categories back into the transcribed data. As mentioned above, the researcher aimed to identify “what” users do, with “whom” to obtain “what kind of benefit”. If the interviewee mentioned the connection once, then the researcher recorded that there is a chance that people can obtain certain benefits through that way.

5.4.2 Results

This section reports the results from the interview analysis. The examples provided from interviewees’ comments are “*written in italics surrounded by double quotation marks*”.

5.4.2.1 Categories

Types of Facebook interaction

The main category for types of Facebook interaction mainly referred to what Facebook behaviours participants do on Facebook. Three subcategories of types of Facebook interaction were coded: observing, communicating and grouping (Table.5.7).

1. A comment was coded as “observing” if interviewees specified that they looked at information on their friends’ pages, but did not give a response (“*If I saw somebody’s name, I would click on it and use ten minutes to look at their personal life*”).
2. An utterance was coded as “communicating” if interviewees reported a one-to-one communication by:

- a. writing on their friend's wall (*"I used to write on his wall...things about our course...or I know once or twice, I commented on his wall about photo"*);
 - b. replying to their friends' status (*"He is one of my ... I'm his mentor, in the postgraduate programme. You can see he's been struggling, stressing out. He wrote - 'Oh help! A piss to mology [Epistemology]. I commented on his status"*);
 - c. chatting with their friends (*"And are there any hot guys around? Obviously, we can chat about whether there are some good guys"*); or
 - d. privately exchanging messages (*"Sort of ... the stronger you become, the more private you become on Facebook. I would rather send him a message than write on Facebook"*).
3. The classification of "grouping" was used when interviewees specified that they interact with more than one friend at a time by, for example:
- a. getting involved in Facebook groups (*"... on Facebook, I have a group of [Western] friends who like music and movies. We created a Facebook group to share information. If I want to find some information, I can go to the group and ask if someone can give me some suggestions"*);
 - b. getting involved in Facebook events with a group of friends (*"I have many [cross-cultural weak] friends. ... These friends organized parties through Facebook event invitations. I joined them quite a few times"*);

- c. tagging photos of a group of friends (“*I uploaded pictures after travelling to somewhere and tagged the people who travelled with me*”); or
- d. discussing with a group of friends (“*As you can see here, she updated her status. We went to comment on that ... we not only commented on her, we also commented on the other girls’ replies. It’s amazing; there were more than 70 pieces of replies*”).

Table 5.7. Types of Facebook Interaction

Sub-categories	Definition
Observing	Only one person in this interaction: look at information provided by friends, without giving a response.
Communicating	One to one communication: write on the wall, reply to friends, chat, privately exchange message.
Grouping	More than two persons’ interaction: Facebook group, Facebook events, tag photo, group discussion.

Table 5.8 summarizes the number of interviewees mentioned each type of interaction. It can be seen that observing was the most common interaction and was mentioned by all interviewees. The numbers of interviewees who reported they communicate with friends were different between British and Chinese samples (13 vs. 10). Some British users and some more Chinese users were observers to cross-cultural friends on Facebook. Only 5 British and 5 Chinese interviewees reported that they got involved in cross-cultural group activities. It infers cross-cultural grouping activities are less often engaged in, compared to observing and communicating.

Table 5.8 Number of Interviewees Reported on Each Type of Interaction

	British	Chinese
Observing	15	15
Communicating	13	10
Grouping	5	5

Benefits of Social Capital

Benefits of bridging social capital include four sub-categories: broaden views, find new resources, open up opportunities, and diffuse reciprocity.

1. A mention was coded as “broaden views” if interviewees specified that they broadened their own horizon through understanding what other people are thinking and doing (*“Like some of my friends from different countries, you hear what they talk about, what they are concerned about...they may have different concerns; it’s important to learn things about what they are doing”*).

2. An utterance was coded as “find new resources” if interviewees said that they get a resource of receiving new information (*“I like to see the latest Western fashion trends from the photos posted by this girl”*).

3. The code “enlarge friend circle” was used when interviewees reported that they got to know more people (*“I can see whether there is someone I might know and who might be a friend of mine in the future”*).

4. The classification of “diffuse reciprocity” was coded when users reported that they diffused reciprocity with a broader range of people (*“I think I wished him happy birthday, one time. Yes, ideally, I think maybe next time he will post the same to me, maybe, it will make me happy”*).

The category benefits of bonding social capital contains three sub-categories: substantive support, share limited resource and mobilizing solidarity.

1. A mention was coded as substantive support if the interviewees specified that they had been supported continuously (*“He is one of my best cross-cultural friends. If he posts something about himself on Facebook, I will definitely comment on that, or just simply click a ‘like’. ... It’s a kind of emotional support, you know? He will do the same thing for me. As you can see, he commented a lot on my wall. It’s really good because you know someone is always there to be with you”*).
2. The classification of “share limited resource” was coded when interviewees reported they had access to limited resources (*“My friend, he shared a status, showing that he knew a translation software for the Macbook, but he wouldn’t tell anyone. I asked him in private chatting and he told me”*).
3. The code “mobilizing solidarity” was used when interviewees reported that they arranged what to do together with friends on Facebook (*“I have my football group on Facebook. What you create is what you are organizing. Well, some of them are*

English, but some of them are cross-cultural friends. Before Facebook, I had to send mass texts to create regular meetings. Now I just use Facebook”).

Table 5.9. Benefits of Social Capital

Codes	Definition
<i>Bridging</i>	
Broaden views	Broaden own horizon through what other people are thinking and doing
Find new resources	Get a resource of receiving new information
Enlarge friend circle	Know more people
Diffuse reciprocity	Diffuse reciprocity with a broader range of people
<i>Bonding</i>	
Substantive support	Substantive support from others
Share limited resource	Access to limited information and resources
Mobilizing solidarity	Easier arrange what to do together with friends on Facebook

5.4.2.2 Relationship of Categories

Cross-cultural Facebook activities and benefits.

This section reports how British and Chinese interviewees used Facebook to interact with different types of cross-cultural friends in order to get the benefits of social capital.

Observing. Both British and Chinese interviewees reported that their “observing” of both cross-cultural weak and strong friends contributed to the benefit of bridging social capital, but not to bonding social capital. In the following example, a British interviewee showed how observing cross-cultural weak friends helped him understand different lifestyles and hence helped to broaden his views: *“I would find Chinese and Japanese people... their lifestyles are completely different. We are still Western; we understand certain things. Like something in China, it would be interesting to see; if I go there, it’s easier for me”*.

A Chinese interviewee illustrated how observing cross-cultural weak friends’ Facebook status helped her to understand more about British culture and hence broaden her views:

“I like to look at their status. Some of their statuses are quite impressive. Although I don’t know what these sentences mean, I know they are classic English sentences. Some of them are quite funny. It helps me know more about British culture and adapt into British culture”.

It is not difficult to understand why observing cross-cultural weak friends can bring the benefits of bridging social capital. It is somewhat surprising to see, however, that observing cross-cultural strong relationship friends can also bring such benefits. The explanation given by interviewees was that they did not know everything about their strong friends despite being close. On Facebook, they were able to see some different aspects of their cross-cultural strong friends. For example, a British interviewee mentioned how observing a cross-cultural strong friend’s Facebook activity changed her opinion about Chinese people, and hence broadened her view: *“... my impression about Chinese people is very negative. 95% were Chinese, when I did my masters here. I found the Chinese stuck together. They spoke Chinese... it’s difficult to talk to them. When I go on his Facebook page, it’s strange. You don’t think a Chinese learning English is strange, but he used to write in Italian. See...he is interested in football. He is a lot more open. He joined British friends’ conversations. Some of the phrases he quoted are interesting”.*

A Chinese interviewee had the following comments regarding how observing cross-cultural strong friends helped him get a new resource: *“This guy is quite interested in football. I like football as well. I like Italian Serie A. He likes the Premier League, obviously, because he is English. I don’t spend time on watching the Premier League,*

because I am too busy. However, I can always know some news about Premier League from him. He likes to share these things on Facebook. For example, the latest football results, the videos. It's interesting to have a look".

Communicating. Both British and Chinese interviewees reported that communicating with both cross-cultural strong and weak friends contributed to the benefit of bridging social capital. For example, communicating with cross-cultural weak friends helped a British interviewee get information about travelling, and hence had a resource to receive new information: *"I was gonna go to Brazil, last summer, oh, two summers ago. ... my friend sent me a message 'Let me know your plans of coming to Brazil.' I made all the plans, she told me where to go, what to do, and everything I need to know there. That's why I think it's a weak relationship, but it's useful".*

A Chinese interviewee provided the following comments on how communicating with cross-cultural weak friends helped him diffuse reciprocity with a broader range of people: *"If I see some cross-cultural weak friends' birthday reminders in the News Feed, I will write on their wall, saying a "Happy Birthday" to them. And you see, on my birthday, I received a lot of the same messages from them".*

In the following example, a British participant mentioned how communicating with a cross-cultural strong friend provided a new resource for her: *"Our conversation is child related. In the university, I don't have any friends who have children. It's nice for me to see someone else going through it as well".* A Chinese interviewee reported how

communicating with cross-cultural strong friends helped him broaden his view: *“I usually talk with my close friends on Facebook. I need to practice my English. Talking to them is difficult. Sometimes I cannot understand. If I don’t understand, I will search for the meaning on Google”*.

British interviewees did not mention any benefit of bonding social capital from communicating with cross-cultural friends. An explanation given by a British interviewee was that he kept “lightweight” contact with cross-cultural friends on Facebook. Chinese interviewees, however, did give examples of how communicating with cross-cultural strong friends brought benefits of bonding social capital.

In the following example, a Chinese interviewee reported how communicating with a cross-cultural strong friend helped him receive substantive support: *“He is one of my best cross-cultural friends, if he posts something about him on Facebook, I will definitely comment on that, or just simply click a ‘like’. For example, here, he’s not feeling well. I said, ‘You will get recovered soon, mate.’ It’s kind of emotional support, you know. He will do the same thing for me. As you can see, he commented a lot on my wall. It’s really good because you know someone is always there to be with you”*.

Grouping. Both British and Chinese interviewees reported that they could obtain the benefit of bridging social capital through grouping with both cross-cultural weak and strong friends. In the following example, a British interviewee reported how grouping with cross-cultural friends helped him find more new friends and hence enlarge his friend

circle: *“I have my Mahjong group. It’s a cross-cultural group. We can organize events (on Facebook), at the university, once a week. ... We also went to watch films; they brought friends who I didn’t know before. Once I knew their names... you can add them on Facebook, or through the photo tag”*.

A Chinese interviewee likewise mentioned how grouping with cross-cultural weak friends helped him enlarge his friend circle: *“I have many [cross-cultural weak] friends, they are British Born Chinese. They speak Cantonese and I speak Cantonese as well, but they don’t go on Xiaonei. I have to use Facebook to contact them. These friends organized parties through Facebook event invitations. I joined them quite a few times. After the parties, you can see a lot of pictures, and they tagged me into the photos. I added some new people”*.

Both British and Chinese interviewees also reported that “grouping” with cross-cultural strong friends, but not with cross-cultural weak friends, could help them obtain the benefit of bonding social capital. For example, a British interviewee mentioned how “grouping” with cross-cultural strong friends helped him mobilizing solidarity with these friends: *“Before we go out, one person is organizing. It’s difficult, one person using mobile phone. Facebook is just a more convenient, quicker and cheaper way to manage a group of friends, rather than individual friends”*.

A Chinese interviewee mentioned how grouping with cross-cultural strong friends helped her get access to limited resources: *“... on Facebook, we share resources relating to our*

study. As you can see, I shared videos about grounded theory, it's a speech given by a professor from Huddersfield University. You can also see their shares. This guy referred a good book for conducting focus group research. I'm not the creator of this group, but I'm an organizer of this group. I usually send out the topic of every week's discussion".

A summary of the links between Facebook interactions and the benefits of social capital reported by British and Chinese interviewees is shown in Figure 5.2. The blue lines represent both British and Chinese; the red lines represent Chinese only; and the green lines represent British only.

Figure 5.2 Relationships between Facebook use, type of cross-cultural relationship and benefits to British and Chinese Interviewees

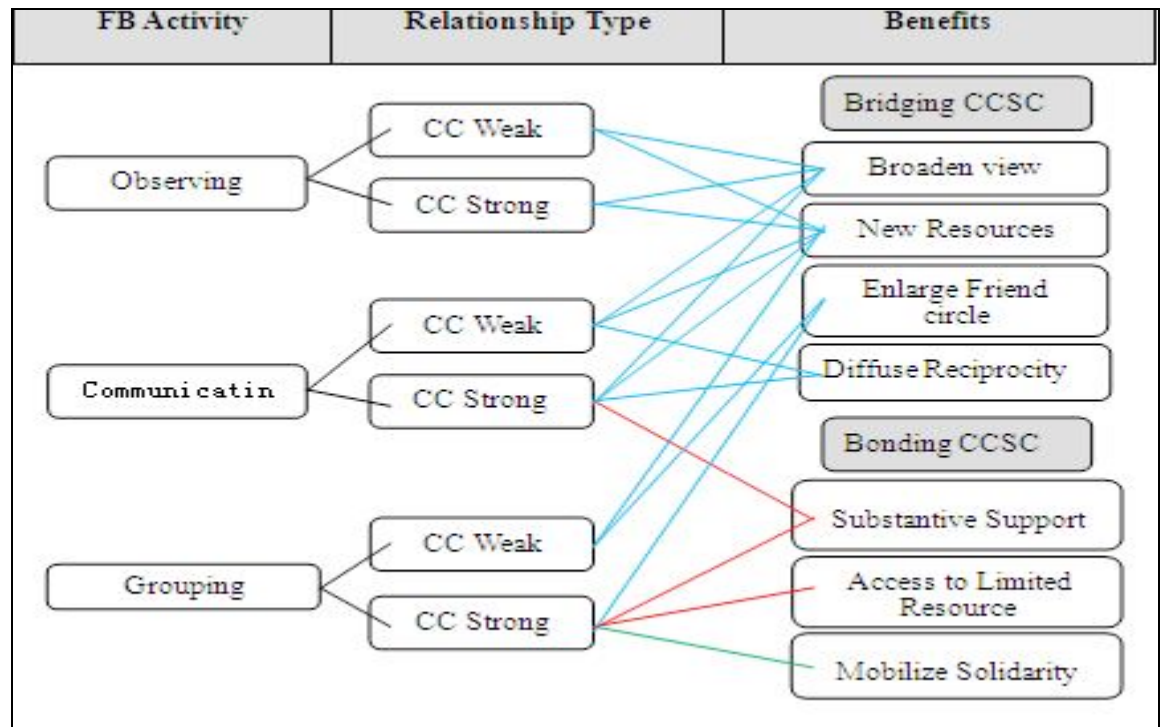


Table 5.10 summarizes the number of interviewees mentioning each way of obtaining benefits (connection strategies), reflecting the frequency of the connection strategies

mentioned by interviewees. Most comparisons between British and Chinese interviewees were similar; however, more Chinese interviewees reported observing cross-cultural friends bringing them benefits (such as broaden views and getting new resources from them) than their British counterparts. British interviewees were more likely to communicate with cross-cultural friends to diffuse reciprocity. They reported grouping with cross-cultural strong relationships to enlarge friend circle as well as mobilize solidarity. The Chinese interviewees however reported grouping with cross-cultural strong relationships to get substantive support and obtain access to limited resources. These comparisons could be limited due to the small number of interviewees, though it could reflect the tendency as to how people get benefits through their connection strategies.

Table 5.10 The number of interviewees mentioning each way of getting benefit of Social Capital.

Connections between Facebook Interactions, Relationships and Benefits	British	Chinese
Observing with cc Weak – Broaden View	8	14
Observing with cc Weak – Get New Resources	4	12
Observing with cc Weak – Enlarge Friend Circle	0	0
Observing with cc Weak – Diffuse Reciprocity	0	0
Observing with cc Weak – Get Substantive Support	0	0
Observing with cc Weak – Access to Limited Resources	0	0
Observing with cc Weak – Mobilize Solidarity	0	0
Observing with cc Strong – Broaden View	13	15
Observing with cc Strong – Get New Resources	2	10
Observing with cc Strong – Enlarge Friend Circle	0	0
Observing with cc Strong – Diffuse Reciprocity	0	0
Observing with cc Strong – Get Substantive Support	0	0
Observing with cc Strong – Access to Limited Resources	0	0
Observing with cc Strong – Mobilize Solidarity	0	0
Communicating with cc Weak – Broaden View	9	9
Communicating with cc Weak – Get New Resources	5	9
Communicating with cc Weak – Enlarge Friend Circle	0	0
Communicating with cc Weak – Diffuse Reciprocity	8	3
Communicating with cc Weak – Get Substantive Support	0	0
Communicating with cc Weak – Access to Limited Resources	0	0
Communicating with cc Weak – Mobilize Solidarity	0	0
Communicating with cc Strong – Broaden View	8	9
Communicating with cc Strong – Get New Resources	5	8
Communicating with cc Strong – Enlarge Friend Circle	0	0

Communicating with cc Strong – Diffuse Reciprocity	11	5
Communicating with cc Strong – Get Substantive Support	0	7
Communicating with cc Strong – Access to Limited Resources	0	0
Communicating with cc Strong – Mobilize Solidarity	0	0
Grouping with cc Weak – Broaden View	0	0
Grouping with cc Weak – Get New Resources	3	3
Grouping with cc Weak – Enlarge Friend Circle	4	5
Grouping with cc Weak – Diffuse Reciprocity	0	0
Grouping with cc Weak – Get Substantive Support	0	0
Grouping with cc Weak – Access to Limited Resources	0	0
Grouping with cc Weak – Mobilize Solidarity	0	0
Grouping with cc Strong – Broaden View	0	0
Grouping with cc Strong – Get New Resources	0	0
Grouping with cc Strong – Enlarge Friend Circle	5	1
Grouping with cc Strong – Diffuse Reciprocity	0	0
Grouping with cc Strong – Get Substantive Support	0	4
Grouping with cc Strong – Access to Limited Resources	0	5
Grouping with cc Strong – Mobilize Solidarity	3	0
Total Number of British interviewees = 15 and total number of Chinese interviewees = 15.		

5.4.3 Discussion

The types of cross-cultural Facebook activities identified in this study were observing, communicating and grouping. It is perhaps not surprising that these three activities emerged from the participants' comments because these activities are closely connected to the functionality of Facebook. The benefits people attain on Facebook can be linked to different aspects of social capital, as mentioned in Williams' (2006) study. This survey research found that Facebook use is able to provide the following benefits: broadening views, finding new resources, enlarging friend circle and diffusing reciprocity. These closely match Williams' (2006) bridging social capital dimensions. It also found Facebook use is able to provide substantive support, share limited resource and mobilize solidarity, which closely match Williams' (2006) bonding social capital dimensions. However, the specific benefits reportedly arising from the cross-cultural use of Facebook can depend on the type of use, the type of relationship associated with that use, and the cultural background of the user (Figure 5.2).

Benefits of bridging social capital. Benefits associated with bridging social capital arise from all three types of cross-cultural Facebook use. Granovetter (1973) focused on the bridging type benefits that weak ties can bring, such as receiving new job information. However, Bian's (1997) study showed that Chinese people use strong ties for getting the benefit of bridging social capital (enlarging their circle of friends) in relation to their career development. This interview research adds to this by showing that both British and Chinese users of Facebook perceive bridging type benefits arising from their cross-cultural *strong* friendships. That this has not been observed much in offline interactions could be explained by the fact that it is hard to recreate differences in self-representation specific to different contexts in Facebook, which allows people to see aspects of their strong friends' lives they may not normally be exposed to outside of Facebook. Per definition, these aspects constitute a much larger part of the lives of the participants compared to the narrow and often temporary context in which cross-cultural relationships enact themselves. The link between bridging social capital and strong tie relationships may therefore be particularly prominent in cross-cultural online interactions.

Benefits of bonding social capital. According to both British and Chinese interviewees, only cross-cultural strong friends can bring the benefits of bonding social capital; however there were cultural differences in the link between cross-cultural Facebook use and bonding type benefits. Chinese interviewees indicated that communicating and grouping with cross-cultural strong friends brought two benefits of bonding social capital – “getting substantive support” and “access to limited resource”; whereas British interviewees only reported the benefit of “mobilizing solidarity” arising from grouping

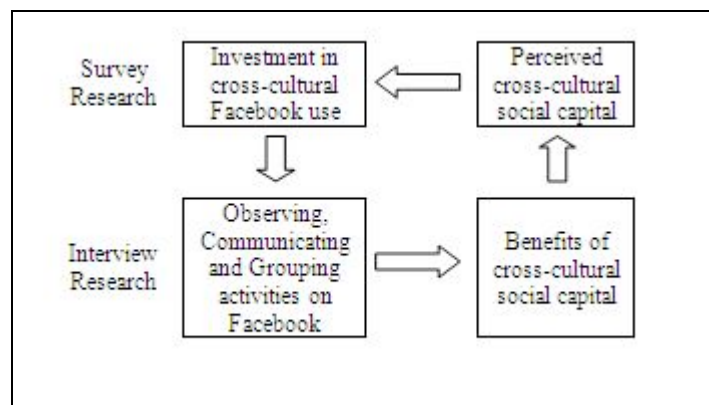
activities. Although both British and Chinese interviewees regularly provide and receive positive feedback and comments to/from their friends, only Chinese interviewees commented how this make them feel emotionally connected to these friends. The benefits experienced by Chinese interviewees imply an exchange of favours taking place (reciprocity), whereas those experienced by British interviewees do not; rather, British interviewees relied on their own efforts to create group activities which served their own needs (e.g., football leagues and birthday parties). This finding can be linked back to previous cross-cultural studies, which suggest that people from Western cultures are more likely to use friend resources to perform personal goals (Triandis, 1989b), rather than get direct help from others. This is because they tend to be independent. Conversely, people from Eastern cultures tend to get more involved in providing mutual support and exchanging favours with certain others because their lifestyle is more interdependent (Markus & Kitayama, 1991).

5.5 General Discussion

Overall, the two studies have provided strong evidence for the existence of cross-cultural Facebook use and that this use leads to benefits which are often associated with social capital. The results of the survey research suggested that there is a strong link between how much users invest in the cross-cultural use of Facebook, and how much cross-cultural social capital (particularly bridging and bonding) they perceive as having in their cross-cultural friends networks on Facebook. Part of this investment is the use of Facebook functionality to either observe, communicate with or group with Facebook friends. Interview research provided clear evidence of causal links between cross-cultural

Facebook use and obtaining benefits associated with bridging and bonding social capital. It is likely that as users experience the benefits of cross-cultural social capital from their cross-cultural Facebook use, they will become more confident about a link between cross-cultural Facebook use and cross-cultural social capital. This confidence will motivate them to invest more into their cross-cultural Facebook use in terms of both time and emotion (e.g., Lin, 2001a; DiMicco et al., 2008), thereby completing a reinforcement loop (Figure 5.3). This loop may be stronger for users with initially low intercultural engagement. Unlike users with high intercultural engagement who already have a positive attitude towards engaging with cross-cultural Facebook friends, users with low intercultural engagement may realize they need a bigger investment in order to get a greater level of bonding social capital, after getting some benefits from their cross-cultural Facebook interactions; this would explain the results presented in Figure 5.1 (a).

Figure 5.3. Reinforcement loop of cross-cultural Facebook use. The causal relationship established in the interview research determined the direction of causality in the loop.



The interview research also revealed the Facebook channels or connection strategies as Ellison et al. (2011) calls them, through which this cross-cultural social capital can be obtained. A channel is a type of interaction with a type of friend. The benefits of bridging social capital on the one hand, can be obtained through many channels on Facebook; in

particular the observing function provided by Facebook, which delivers information about friends (both strong and weak) and their activities anytime and anywhere contributing to the benefits of bridging social capital. Here may in fact lie the real strength of Facebook, in that it provides something that cannot easily be obtained offline (cf., Ellison et al., 2007). The benefits of bonding social capital, on the other hand, can be obtained only through communicating and grouping with cross-cultural strong friends.

One limitation of this study might be the fact that the results were obtained from a sample of students in one University in the United Kingdom using a particular social networking platform. However, there is no reason to suspect that this sample is not representative in many ways for other multi-cultural communities, such as students in other international universities across the world using Facebook or other social networking platforms. Furthermore, the findings may also apply to other types of multi-cultural communities such as the workforce of large multinational corporations networking on Facebook, LinkedIn or Beehive. It has been widely reported that employees with more extensive social networks, and in particular bridging social networks, have more success in their careers (e.g., Burt, 1992; Seibert et al., 2001). In these multinational organizations, friendships between employees from different countries and cultures, developed during periods of co-working (e.g., project teams), can be enhanced and maintained using these online social networking platforms. As a result, the amount of social capital in these organizations may increase, making the organizations more efficient and resilient through improved information flow, use of resources and the provision of emotional support.

However, despite the benefits cross-cultural online social networking can offer, multi-cultural teams should also be aware of cultural differences in these interactions. Firstly, this study found support for asymmetries in the relationships between users of social networking platforms from Eastern and Western cultures. In particular, Western users may dominate the interactions due to having a higher intercultural confidence compared to Eastern users; this may be due to the dominance of Western cultures and the predominant use of the English language. Secondly, Western users may be much less sensitive to the benefits of bonding social capital compared to Eastern users. This agrees with the often reported independence of people in Western cultures compared to the interdependence of people in Eastern cultures. In short, the results suggest that British people use Facebook to manage their network (i.e. use the strength of the network to pursue personal goals and build wider connections); whereas Chinese people use Facebook to manage their relationships (i.e. increase the exchange of favour and mutual support with certain relationships in order to store payback and get support from others). This difference may represent a substantial barrier to the creation of cross-cultural bonding social capital within multi-cultural communities if (i) people from Western cultures do not reciprocate the efforts of people from Eastern cultures, and (ii) they do not get the benefits of being able to mobilize solidarity from Eastern people either. Future research will have to examine these cultural differences in more detail, including the possibility that circumstantial differences between our British and Chinese samples may have affected the results.

5.6 Summary

This study examined the relationship between cross-cultural social capital and cross-cultural social networking through survey and interview research. During the interviews, the researcher asked much more questions and obtained more detailed information from the interviewees. The analysis in this study only used part of the information gained, for example, only the answers for the question of “what do they do” and “what can they get through these activities”, and only the answers towards interviewees’ report about cross-cultural friends. In the next study, the researcher will analyse the same interview data used in this study, however will focus on interviewees’ answers towards the question “why do they do these activities”.

CHAPTER VI STUDY THREE – NETWORK LEVEL

6.1 Introduction

Study 2 identified the relationship between cross-cultural social capital and cross-cultural social networking. It seems that cross-cultural social networking can bring the benefits of social capital to individual users, as the causal relationships were indicated through the interviewees' answers. However, it is still unknown what factors affect people's management of social networking. During the interviews, as partly presented in the previous chapter, the researcher also asked interviewees why they did certain actions with friends. These questions aimed to understand what factors affect individual users' decision-making. Based on interviewees' answers to these questions, the researcher conducted further analysis. A few factors were found as being influential to users' decisions on how much effort they tend to spend on each type of Facebook interaction. To validate these results, the researcher did an experiment to test these causal relationships, to see the role of these factors. This chapter will present firstly the interview analysis, followed by the experiment. A general discussion is undertaken for the combination of interview and experiment results.

6.2 Interview Analysis

This section will demonstrate how the researcher analyzed the interview data related to the question - how do users manage their multi-cultural social networking? A brief review of Study 2's interview analysis (Chapter 5) will be undertaken also, as some of the

analysis overlaps with this study's interview analysis.

Data collection was the same as in Study 2 (i.e. the data is the same). The interview analysis in this study took three stages:

Stage 1: Open coding. As reported in Study 2, the researcher generated concepts from the data and summarized them into three main categories: 'types of Facebook interaction', 'benefits of social capital' and 'types of relationships'. In this study, the researcher introduced another category identified through open coding; that of 'content of Facebook interaction'. Although 'content of Facebook interaction' is not the main focus of this study, the researcher could not ignore it at the open coding stage, as interviewees mentioned this.

Stage 2: Axial coding. The researcher tried to find out the causal relationships between different categories during this stage. The way of analyzing was different from Study 2. When the researcher analyzed the relationships between categories in Study 2, the researcher would make a connection if one interviewee mentioned it. This is because the researcher aimed to see the possibility of getting benefits through different ways. However, when the researcher analyzed the relationships between categories in this study, the different kinds of relationships reported by different interviewees were carefully compared. For example, the researcher found one interviewee mentioned that because it

was a strong relationship, it made the interviewee curious about what had happened to a close friend, resulting in them spending time on checking (observing) the friend's Facebook updates. The researcher made a note that a 'strong relationship' caused 'observing'; after which the researcher moved to the next interviewee's answers and so on, in order to see which causal relationships were constantly appearing and whether there were opposite opinions. During this step, the researcher identified all the causal relationships.

Stage 3: Selective coding. This stage involved identifying which categories connect mostly with other categories, from which core categories would be selected. The researcher went back to the data to further assess the relationships between other categories and the core categories to bring out a main storyline. To illustrate, the researcher found the core category Facebook Interaction including 'types of Facebook interaction' and 'content of Facebook interaction', connected mostly with other categories (i.e. types of relationship and benefits of social capital). Moreover, based on interviewee reports, 'types of relationships' and 'benefits of social capital' determined the 'types of Facebook interaction' and 'content of Facebook interaction'.

6.3 Results – Interview Analysis

Before reporting the results of study's interview analysis, the researcher presents another category that was not mentioned in last chapter: Content of Facebook Interaction.

6.3.1 Content of Facebook Interaction

This category was identified when interviewees spoke of how they communicate with and group their friends on Facebook. When giving examples of how they communicate and do group activities with their friends, they mentioned the content of their interactions, more specifically emotional support, information exchange and self-disclosure.

‘Emotional support’ was coded if interviewees reported that they would leave messages or give responses to their friends of an emotional nature; for example when:

- 1) They clicked the ‘like’ button under their friends’ sharing (e.g. *“If I find it funny, I will just simply click a ‘like’”*). Clicking the ‘like’ button informs their friends that they are cared about and that their sharing can arouse sympathy.
- 2) They leave messages to rekindle a relationship (e.g. *“I wrote on her wall, ‘Long time no see, how are you?’”* or *“Let me know when you are in MCR”*). These behaviours can inform their friends that someone is missing them.
- 3) They write “happy birthday” messages on friends’ wall. Birthday reminder is a function on Facebook. It also informs people that they are being cared about.
- 4) They support their friends on Facebook, who had expressed sadness, or who had complained about their life on Facebook (e.g. *“She said here...she mentioned a bad mood, I commented on that, saying don’t worry, it will be OK”*).

- 5) They praised their friends on Facebook (e.g. a Chinese interviewee commented on a friend's photo stating "*I wrote, you and Mo Farah (a famous British athlete) are much alike!*").
- 6) They make funny replies to their friends such as jokes and humour (e.g. a Chinese interviewee in responding to a British friend's status about a football match, he wrote "*Man United is not Devon Loch*²").

The second sub-category related to content of Facebook interaction is 'information exchange'. It was coded when interviewees reported that they leave messages or give responses to their friends which exchange information. The following activities were coded as 'informational support':

- 1) Answering questions - for example, an interviewee's friend mentioned that when his friend asked "*How did Ferguson call Wayne Rooney?*", the interviewee's friend gave an answer "*Wazza!*". This is considered to be information exchange.
- 2) They passively shared information to their friends. For instance, a Chinese interviewee explained how he introduced Chinese culture to his British friend - "*I like to show him some useful links about China because he is interested in Chinese culture*".
- 3) They gave suggestions to their friends (e.g. "*This guy said he was going to travel*").

² In the 1956 Grand National, Devon Loch buckled due to sheer exhaustion with the winning post in sight.

to Cardiff; I suggested to him to take a train instead of driving because of the fog”).

The third sub-category relating to content of interaction is ‘self-disclosure’. A comment was coded as self-disclosure if interviewees reported they have disclosed their personal information through Facebook interactions, for example:

- 1) They disclosed their plan or behaviour on Facebook (e.g. *“We chatted a lot, mainly about what we were doing and our daily lives.”*)
- 2) They disclosed their personal views and opinions (e.g. *“Sometimes we talked about our politic views”).*
- 3) They disclosed their feelings about themselves (e.g. *“I told him that I was not happy about another friend”).*

Table 6.1 Categories of Content of Facebook Interaction

Emotional Support	Information Exchange	Self Disclosure
Click “like”	Answer questions	Disclose their own feelings
Leave message to rekindle relationships		
Write happy birthday	Passively share information	Disclose personal views
Support when friend is down		
Praise friends	Give suggestions	Disclose their plans
Make funny reply		

6.3.2 Factors affecting British users' decision on types of Facebook interactions

The interview analysis found that 'types of relationship' and 'benefits of social capital' were factors influencing users' decision-making on 'types of Facebook interaction' and 'content of Facebook interaction'; however these factors affected each differently across cultures. This section discuss about how these factors affect users' decisions on Facebook interaction across cultures.

Relationships. British interviewees stated their decision to carry out Facebook interactions were predominantly based on the 'types of relationship'. During the interviews, when asked why they did certain activities, they normally answered because of the 'types of relationship'. The analysis found the influence of this was mainly on their decisions related to whether to observe and communicate with others on Facebook (as suggested by the connections between the category 'types of relationship' and the categories 'observing' and 'communicating').

In particular, a number of British interviewees reported that they did not observe their weak relationship friends that often. Sometimes, even when their weak relationship friends had some new activities on Facebook, they were not aware of these activities. In general, they tended to pay more attention to observing their strong relationship friends. In this sense, 'types of relationship' affected their decision of whether or not, and how much to observe others. For example, the following British interviewee mentioned he was less interested in observing their weak relationship friends:

“Sometimes people post a lot of messages, and I just don’t find their topics interesting or relevant to me. For example, what they have for breakfast...those people often do this. I’m bothered to see that kind of information on the first page. I just like to see people who are close to me, like from my master course, or PhD course. I’d rather see mainly people who I am more close to.”

Most British interviewees showed a similar attitude when they were deciding whether or not to communicate with others on Facebook. They reported that they would normally communicate with their strong relationship friends on Facebook. A common answer given was the nature of a strong relationship; that is, they already know each other well and it is convenient to talk with them. However, for weak relationship friends, they did not feel like talking with them regularly, just occasionally. In this sense, ‘types of relationship’ affected their decision of whether or not, and how much to communicate with others. The following British interviewees mentioned that they tended to communicate with their strong relationship friends on Facebook. Although they have slightly different patterns of Facebook interactions, all of their comments mentioned the distinction between strong and weak relationships when deciding to communicate with others:

“I think in different ways, the friends who are not close, I do not see a lot, just what’s going on the major events, whether they get a job...I don’t interact...well maybe occasionally, things come up the profile, links, video. With closer friends, I can share videos, music, photos.”

“With my close friends, I already know them well in real life, so it’s a more convenient way to communicate...sharing things on Facebook. But I don’t share things with non-close friends. I just basically spy... I think everybody does this.”

“I only post on people’s wall, either people’s connection was very strong previously, or was a maintained close relationship. Sometimes that might be ex-girlfriends, or just ex good friends.”

“The relationship determines the interactions on Facebook. With my close friends, we talk more personal stuff, whether I have a girlfriend, what I am doing. I’m more comfortable to speak to my close friends, as we have known each other for a long time.”

“Me personally, I don’t mind what people talk about. If I don’t immediately understand people’s message, sometimes I’m not aware of it, I will just skim it. If they are close friends of mine, I will ask, what does it mean? If they are not my friends, I will just not follow it up. You are curious but you are not deeply concerned”.

From the above examples, it could be seen that the ‘types of relationship’ determined the ‘type of Facebook interaction’ British users tended to choose and spend time on. British users showed a strong trend of observing and communicating with strong relationship friends; however the researcher did not find the same trend when British users reported their decision of grouping with others on Facebook. Most of them reported that they interacted with both strong and weak relationship friends in their group activities. A common explanation was that they could always interact with some weak relationship

friends through their strong relationship friends in these group activities. For example, a British interviewee mentioned he interacted with weak relationship friends starting with a Facebook event:

“This is a weak friend. I don’t really know him personally. If I see him, I will say hello. I very, very rarely speak to him. He is from my hometown. In my hometown, there are two schools. He went to another school. We have mutual friends. I sometimes check if they will go out on a certain day, then I will send him messages. Well, if you look here...he basically just sent the invitation. If I can’t make it, I will say no. But I saw some of my best friends replied that they would go there. I think it’s polite, I should reply when it’s coming up.”

Benefits of Social Capital. The researcher found that a ‘type of relationship’ was not the only factor that determined British users’ decisions of Facebook interaction. In other words, they do not always use social networking in a “natural” way. Sometimes benefits may motivate them to do something beyond their natural interaction. During the interviews, British interviewees showed a trend of using the benefit of bridging social capital (such as enlarging their friendship circle, broadening views, finding resources for new and interesting information, and diffusing reciprocity) to explain why they observed and communicated with some weak relationship friends. However, no one used the benefit of bonding social capital, such as getting substantive support, accessing limited resources or mobilizing solidarity, to explain such interactions. As reported by British interviewees, observing and communicating with strong relationship friends was more

natural, yet observing and communicating with weak relationship friends was more intentional. These behaviours were mostly driven by getting new information, diffusing reciprocity or for broadening views. For example, the following British interviewees commented on why they occasionally communicate with their weak relationship friends:

“This is the guy I met when I was doing an undergraduate course in Manchester. He was with one of my friends when I lived in halls, this is his friend. Just went out for one night. I think he added me on Facebook. On Facebook you can search for adding contact. This guy sometimes leaves messages for me, asks how I am and what I’m doing, things like that. I think he wants to keep this relationship. I replied him. Uh, it’s just a couple of messages on the wall. Because, maybe, it’s difficult to say, but possibly, he’s Chinese, I’m going to China. Maybe I will ask him a favour, if he knows any companies, like that.”

“Weak relationship friend from my culture...alright. This guy, I worked with him, we worked together. We added each other as friends on Facebook and we went to watch a concert one time. We didn’t talk too much during last few months. We just sometimes share each other things, like we share the same musical interest. Because we like music, we can find out about new artists or new music that I didn’t know before...new information.

6.3.3 Factors affect Chinese users’ decision on types of Facebook interactions

Relationships. Similar to British interviewees, Chinese interviewees also reported that the ‘types of relationship’ affected their decision of Facebook interactions with others.

During the interviews, Chinese interviewees constantly mentioned that before they did certain actions on Facebook, they tended to consider the ‘types of relationship’. Relationships strength determined whether they communicated and became involved in group activities with others on Facebook (as suggested by the connections between the categories ‘interpersonal relationship’, ‘communicating’ and ‘grouping’. In particular, most Chinese interviewees reported that they only regularly communicated with their strong relationship friends on Facebook. A common reason given by them was that they thought starting a communication with a weak relationship friend was strange. In this sense, the ‘types of relationship’ influenced their decision about whether or not to communicate on Facebook with others, and if so, how much to communicate with them. The following comments given by Chinese interviewees provided evidence for this finding:

“For weak relationship friends, I never communicate on Facebook. Our relationships are not close. We do not have anything in common. I don’t know what I can talk about with them.”

“Sometimes I found my weak relationship friends shared something interesting. I just looked it and laughed at it. I don’t think I replied to any of those things before. Because we don’t know each other very well, it’s very strange to reply to them.”

“I very rarely comment on my weak relationship friends’ status. About a year ago, I constantly commented on a girl’s status. We were not close. I just wanted to attract her

attention. However, other people saw it and suspected that I liked this girl. I was embarrassed!”

From the above instances, it could be seen that although the patterns of communicating with others were slightly different among these Chinese interviewees, their comments showed a trend of communicating with strong relationship friends. A similar trend was found in Chinese interviewees’ ‘grouping’ behaviours. Chinese interviewees showed a strong trend of grouping with strong relationship friends. A common reason given by them was that they tended to build a small circle with close friends. If some weak relationship friends joined their small circle, it would change the atmosphere of their small circle therefore they were more comfortable in grouping only with close friends on Facebook. For example, one Chinese interviewee mentioned:

“As you can see, I tagged photos to these friends. After being tagged, they noticed I uploaded the photos. We commented under these photos. There were also some weak relationship friends in these photos. I didn’t tag them. It’s strange.”

Another Chinese interviewee mentioned how his Facebook group rejected all the other weak relationship friends:

“I created a Facebook group and only added our best friends. We organized things together; we chatted and gossiped... we also shared some resources for studying. Like, we discuss how to prepare for the exam. I don’t want to let other people in, it will reveal

some secrets. Also, I don't want to share these resources to them."

While the 'types of relationship' determined Chinese users' 'communicating' and 'grouping' behaviours, it did not affect Chinese users' 'observing' behaviours. During the interviews, Chinese interviewees commonly showed a strong interest in observing other people's lives and other people's information on Facebook. In particular, they reported the different areas that they looked at:

- 1) Other people's personal information (e.g. which university they were graduated from?)
- 2) Other people's activities on Facebook (e.g. who do they contact most often?)
- 3) Other people's sharing (e.g. music).

They showed a strong trend of 'observing' on Facebook, regardless of the 'types of relationship'. For example, the following comment was given by a Chinese interviewee:

"I also like to look at what my weak relationship friends do on Facebook. For cross-cultural weak relationship friends, I like to see what they share on Facebook and what their lifestyles are. For in-cultural weak relationship friends, I like to see how they interact with cross-cultural friends. One thing I like to do on Facebook is I like to go to their profile pages and see their relationship status. Just curiosity, sometimes I gossip with other friends".

Benefits of Social Capital. For Chinese interviewees, the analysis also found that they not only naturally communicated and grouped with strong relationships, but also were affected by the benefits of both bridging and bonding social capital. The benefits of bridging social capital were primarily more related to informational aspects. During the interviews, a number of Chinese interviewees explained why they observed others on Facebook by stating that they wanted to get more information, broaden their views or enlarge their friend circle. These benefits may lead them to observe and communicate with others regardless the relationships on Facebook. The following examples demonstrate how the benefits of bridging social capital made a Chinese interviewee observe others on Facebook:

“I spend a lot of time on Facebook every day. Most of the time I just see how other people are doing, who are their Facebook friends, things like that. I look at people’s friend list. Almost check everybody’s information. Then I select, who might be a friend of mine. Then I add them. I also look at how different people use English to communicate. I try to remember their words and learn from that. I will notice all my Facebook friends, no matter close friends or non-close friends. I think they are all important. Because I want to know more things, get more knowledge, understand more people...just for those aims.”

Another Chinese interviewee shared this view. She mentioned that “broadening her views” made her want to observe weak relationship friends.

“I don’t interact with them but I’m still curious about them (weak relationship friends). For me, I like to see their pictures. For example, these friends, they like travelling. They uploaded a lot of pictures. I just viewed their picture. It can help me choose the place to travel, because I just want to see which places are beautiful and try to go there next time. My close friends usually travel to the same places together with me”.

Another Chinese interviewee mentioned that he sometimes used Facebook to keep in touch (communicate) with weak relationship friends, in order to open up opportunities for the future:

“I can think of another example, which is about our colleague. He used to be on Facebook quite often. I used to chat with him. Um, I think even we are not close friend. He is very kind and friendly. I chat with him on Facebook. Yes, because we can’t see each other, I can’t meet him quite often. I also think it is good to keep a relationship with him if I talk to him on Facebook. He will know me better... maybe we could build a business relationship in the future.”

The benefits of bonding social capital were mainly obtained through the improvement of interpersonal relationships. During the interviews, a number of Chinese interviewees reported that they communicate and group with others on Facebook because they want to obtain benefits such as substantive support from others in the future. These benefits were part of the benefits of bonding social capital; in order to receive them, Chinese interviewees described that they constantly communicate with their friends, provide

emotional support, and exchange information for example. Among these activities, providing emotional support to their friends was commonly explained by obtaining benefits from bonding social capital. This was because they thought if they do that for their friends, their friends may do the same for them. For instance, the following Chinese interviewee showed why she spent time on constantly providing emotional support to her friend. The reason was that she also wanted substantive support from her friend:

“I am afraid of being lonely, especially studying abroad. I would feel good if I know someone understands me and cares about me. I spent a lot of time on Facebook this year, because most of my Chinese friends went back to China this year, as they finished their studies. I use Facebook because I want to find someone I can talk with and share my feelings. At the beginning, I just aimlessly surfed on Facebook. Until one day, I found a former classmate who was still in Manchester. He was from Greece. I started to talk to him on Facebook. We chatted a lot, mainly about what we were doing and our daily lives. He was looking for jobs and I was looking for jobs, as well. When he was depressed, I encouraged him...because I should do that, it was a natural thing. Also, if I was down, he would back me up.”

Chinese interviewees also mentioned that the benefit of bonding social capital made them become involved in group activities on Facebook, through different ways (e.g. creating a Facebook group or simply group actions on the wall). This Chinese interviewee mentioned why his close friends leave messages together on each other’s wall:

“It’s kind of common understanding that we should leave messages to each other if someone updated new information. For example, he uploaded an interesting video link. I went to comment, and another friend commented and another friend came and replied to my comment and so on. I think because we four are very, very good friends. We all know each other well. For me, personally, I did this because I would feel I’m popular or I’m surrounded by others. For example, some people, they do not have these close friends. Their Facebook use would not have more fun. They cannot find someone who constantly gives response to their posts.”

6.3.4 Discussion

The above results show that ‘types of relationship’ and the types of ‘benefits of social capital’ affect British and Chinese users’ decisions on Facebook interactions. It may determine whether or not to start an interaction and how much effort they spend on each interaction; though the influence of these two factors upon British and Chinese users’ decisions were different. In particular, ‘types of relationships’ affected British users’ ‘observing’ and ‘communicating’, but not their ‘grouping’ behaviour; whereas it affected Chinese users’ ‘communicating’ and ‘grouping’, but not their ‘observing’ behaviour.

Both British and Chinese users seemed to be affected by perceived benefits of bridging social capital. These benefits may make them to do some interactions beyond a natural way (i.e. not purely based on the ‘nature of relationship’). For example, British users tended to observe weak relationships on Facebook because of the benefits of bridging social capital; whereas Chinese users tend to communicate with them for the same benefits. Compared to British users, Chinese users also showed more consideration of the

benefits of bonding social capital. In particular, the ‘benefit of bonding social capital’ may make them spend more time, and place constant effort on providing emotional support, or being involved in group activities. Through the comparisons between British and Chinese users, ‘culture’ could be another factor affecting users’ decision to interact on Facebook (Figure 6.1).

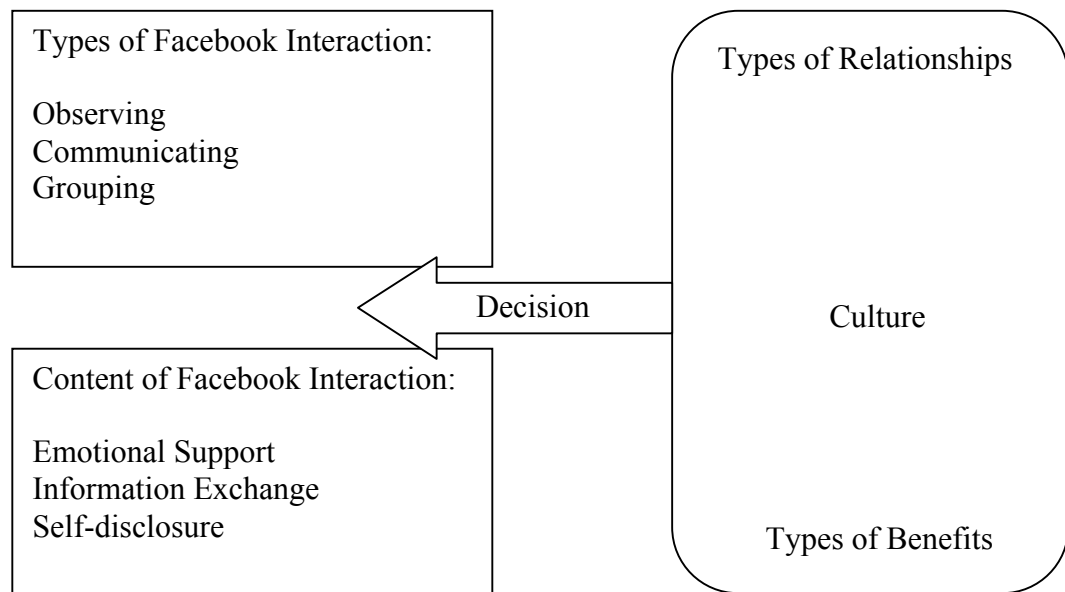


Figure 6.1. Paradigm of decision of Facebook Interactions

While strong and weak relationships were reported as factors affecting users’ decision making on Facebook interactions, it is surprising to see that cross-cultural and in-cultural relationships were not reported as such influential factors. It infers that even in a multi-cultural social networking environment, users seem not to consider the distinction of cross-cultural and in-cultural relationships for their decision on what types of Facebook interaction. It may though be true if we look back to the data. For example, British users reported that they tend to observe and communicate with strong relationships because

they feel these relationships were important to them. If the relationship is strong, then they may feel the need to observe and communicate, regardless of whether the relationship is cross-cultural or in-cultural.

To summarize, the interview analysis identified causal relationships between ‘interpersonal relationships’, ‘benefits of social capital’ and ‘Facebook interactions’. These causal relationships may be mediated by culture (two different cultural groups). In order to test the reliability of the model in Figure 6.1, an experiment was done to assess these causal relationships. The next section will present the experiment.

6.4 Experiment

6.4.1 Background

Interview analysis developed a model describing what factors determine users’ decision of Facebook interactions (Figure 6.1). According to the model, the ‘type of relationship’ and ‘type of benefits’ could affect users’ decision on the types of Facebook interaction and the content of Facebook interaction. Moreover, the two factors influence British and Chinese users’ decisions on Facebook interactions differently. It brought in another factor: “culture”.

As suggested by the literature, the ‘types of relationship’ can be divided into strong and weak relationships. Granovetter (1973) distinguished between such relationships through the intensity of interaction, the level of trust and intimacy. Moreover, in a cross-cultural environment, the ‘type of relationship’ could be divided into cross-cultural relationships

and in-cultural relationships.

As suggested by the literature, social capital represents the resources people keep from the interactions with networked relationships. Social capital can be divided into two forms: bridging and bonding. Some online interaction research used the idea of bridging and bonding social capital to study the effectiveness of online interactions. In their measurements, both types of social capital were used to test the benefits people perceived that they can gain from interactions within their online network (Williams, 2006; Ellison et al., 2007). By summarizing previous literature and considering the nature of bridging and bonding social capital, Williams (2006) argued that bridging social capital could mainly provide benefits such as receiving new information, opening up opportunities, diffusing reciprocity and broadening views; and that bonding social capital could primarily provide benefits such as getting substantive support, having access to limited resources and mobilizing solidarity. Study 2 found cross-cultural social networking could help users get these benefits of social capital. However, the interview analysis in this study found ‘benefits of social capital’ was not only the outcome of social networking, but also the drivers of social networking.

‘Types of Facebook interactions’ and ‘content of Facebook interactions’ emerged from the interview analysis. ‘Types of Facebook interactions’ included ‘observing’, ‘communicating’ and ‘grouping’. The distinction of ‘types of Facebook interaction’ considered how many people were involved in each interaction. ‘Observing’ is an individual behaviour; ‘communicating’ represents any one-to-one communication; and

‘grouping’ means the interaction was with more than two friends. ‘Content of Facebook interactions’ included ‘emotional support’, ‘information exchange’ and ‘self-disclosure’.

The results of interview analysis suggest that ‘types of relationship’ and ‘types of benefits’ affected users’ decision on ‘types of Facebook interactions’ and ‘content of Facebook interactions’. These factors affected their decision of whether or not and how much to spend on different Facebook interactions. These influences are different between British and Chinese users. In particular, *strong and weak relationships* affected British users’ decision on ‘observing’ and ‘communicating’ with others on Facebook, and affected Chinese users’ decision on ‘communicating’ and ‘grouping’ with others on Facebook. British users’ decisions were also slightly affected by the ‘benefits of bridging social capital’, whereas Chinese users’ decisions were affected by both the ‘benefits of bridging social capital’ and the ‘benefits of bonding social capital’.

6.4.2 Hypotheses

The results of the interview analysis can be linked back to the literature on cultural differences between Western and Eastern cultures. Research suggested that people from different cultural backgrounds tend to perceive and manage different relationships differently. People from Eastern cultures tend to be interdependent with certain others (Triandis, 1989b; Markus & Kitayama, 1991); these people are usually their close friends and important friends. They tend to form small circles and interact within the small circles. It certainly decreases the opportunities that they have to extend their interactions to weak relationship friends. Moreover, people from Eastern cultures are not as “open” as

people from Western cultures (Markus & Kitayama, 1991). It is more difficult for them to initiate interactions with people who they are not familiar with. People from Eastern cultures are therefore more likely to communicate and group with their close friends on Facebook. Conversely, people from Western cultures tend to be independent from each other. They still have close friends however they are less likely to form stable small circles. Instead, they tend to have larger social circles and are connected with more weak relationships. They can still interact with their weak relationship friends through their group activities on Facebook.

As people from Eastern cultures live interdependently with others, they tend to pay more attention to others and care more about others, in order to keep harmony. Getting to know others and understanding others seem to be important to them because they can have a better knowledge of the environment they live in, especially a better understanding about who they may interact with. Given this, what personalities others have, what activities others are doing, and what information are others sharing, seem to be important to people from Eastern cultures. They are more likely therefore to observe others on Facebook, especially in a cross-cultural environment, where cross-cultural friends may be less understood before. Facebook provides an opportunity for people from Eastern cultures to observe their behaviours.

Based on these arguments, the researcher developed the first hypothesis:

H1: Types of Interpersonal Relationship would affect users' decision on their types of

Facebook interactions across cultures.

Research suggests that people from different cultural backgrounds tend to have different needs from interactions with others. People from Western cultures tend to be independent from others. According to Markus and Kitayama (1991), they are more likely to get informational needs from others. These informational needs could help them make social comparisons with others, and could help them improve their knowledge and ability. They tend to use the knowledge to solve problems by themselves, instead of seeking to get substantive support from others. People from Eastern cultures tend to be interdependent with others. They are likely to get both informational needs and interpersonal needs from them. Their informational need helps them to better understand the other people who they interact with, thus helping them to adapt themselves to the environment. Their interpersonal need however could help them to solve problems through substantive support from others.

The different needs of people from different cultures may affect their interactions with others. For people from Eastern cultures, in order to get support from others, they need to nurture the relationship with others. This forms a constant exchange of favours - reciprocity. That means, in order to get substantive support from others, one should give others substantive support. One would expect therefore that people from Eastern cultures tend to give certain people substantive emotional support, if they want to receive back a related benefit from certain people. Group activities in a close and bonded group are effective in providing these benefits, as frequent interactions in a close and bonded group

could store trust (Coleman, 1988). Norms of exchanging favour and sharing resources could also be built up (Portes, 1998).

Bridging social capital, as discussed before, mainly provides informational benefits, whereas bonding social capital primarily provides those interpersonal benefits. Given this, one would expect that the needs for receiving the benefits of bonding social capital, may make people from Eastern cultures decide to support and group with others.

Based on these arguments, the researcher developed the second hypothesis:

H2: Types of Benefit would affect users' decision on their types of Facebook interactions and the content of Facebook interactions across cultures.

6.4.3 Method

In order to test these hypotheses, a 2*2*4 experiment was designed. The independent variables included 'types of relationship' (cross-cultural strong, cross-cultural weak, in-cultural strong and in-cultural weak), 'types of benefit' (benefits of bridging and bonding social capital) and 'culture' (British- Western culture and Chinese- Eastern culture). The dependent variables included 'types of Facebook interactions' (observing, communicating and grouping) and 'content of Facebook interactions' (emotional support, information exchange and self-disclosure).

Participants

160 students from the University of Manchester's Facebook network participated in the

study as volunteers. The participants were selected only if they reported that they had both in-cultural and cross-cultural friends on Facebook. Half of them were born in the UK and half of them were originally from China but studying in the UK. The average age of the British participants was 20.76 (sd=1.67), and that of the Chinese participants was 25.42 (sd=3.13). 95% of British participants were undergraduate students, 2.5% were undertaking Master's study and 2.5% were studying for a PhD. 52.5% of Chinese participants were studying on a Master's course, 23.8% were undergraduate students and 23.8% were PhD students. The average years of using Facebook for British participants was 3.84 (sd=1.15), and that of the Chinese participants was 3.28 (sd=1.33). The average number of Facebook friends for British participants was 570 (sd=391), and that of Chinese participants was 133 (sd=110). The average time spent on Facebook per day for British participants was 1.75 hours (sd=1.25), and that of the Chinese participants was 0.9 hours (sd=.87). The gender composition of each group was exactly 50/50.

Apparatus

The researcher developed 16 scenarios reflecting the independent variables. The manipulation of 'types of benefits' was based on the four sub-categories of 'benefits of bridging social capital' and three sub-categories of 'benefits of bonding social capital' as described in Study 3, which was used as part of the scenarios. The manipulation of the 'types of relationships' was based on Granovetter's (1973) definition of strong and weak relationships. The manipulation of 'culture' was based on the nationality and name of the person who were described in the scenarios. Each scenario contained two more parts, reflecting different 'types of relationships', 'types of benefits' and 'culture'. For example,

in one scenario, the British cultural identity was described as *“on your Facebook friend list, there is a British guy called Phil”*.

Followed by that, the “strong relationship” was described as,

“... You had to work together on a series of group projects after you were allocated to the same study group. From then on, you went out with Phil quite often. You found there were shared experiences between you. You became very close friends after a number of interactions. You spent a lot of time together; you trusted each other and were willing to tell each other about secrets; you shared emotional things; you helped and supported each other. There is a group of British friends on your Facebook. Their relationships with you are very similar with the one you kept with Phil. They are your close friends.”

After the description of the ‘type of relationship’, the benefits of keeping such a relationship were described. For example, in the same scenario, the ‘benefits of bonding social capital’ were presented as:

“Using Facebook to interact with this group of people can be beneficial to you. You can obtain strong emotional, substantive support from them; you can share limited resources with them. You can also arrange and mobilize your social life with them. For example, when you share something on Facebook, there is always someone who will give a response to it, which makes you feel you are supported by friends. There is someone who can put their reputation on the line for you. When faced with problems, you can find

someone you are comfortable with to talk about intimate personal issues and be able to rely on them to solve the problems.”

Conversely, in a different scenario, Chinese cultural identity was described as “*On your Facebook friend list, there is a Chinese guy called Xiaoli.*” This could then be followed by a description of a weak relationship:

“...You don’t know him too well; however, you have had a short chat with him and got to know a little bit about him. From then on, you have regular chats, but only if you happen to see him on campus, for example. He is not in your close circle of friends. There is a group of Chinese friends on your Facebook. Their relationships with you are very similar with the one you kept with Xiaoli. They are not in your close circle of friends.”

A description of the ‘type of benefits’ that could arise from such a relationship was then stated. For example, the ‘benefits of bridging social capital’ was presented as:

“Using Facebook to interact with this group of people can be beneficial to you. You can broaden your social horizons of world views, or open up opportunities for information and resources. You can also diffuse reciprocity with a wider range of people. For example, you may be interested in something you have never heard before. You are able to receive new information about things that have happened in other places. You can see how people different than you live and communicate with friends. You may also feel like you are in contact with a broader range of people.”

These two examples only show the scenarios for male participants. For female participants, the description of the person shown in the scenario was changed to: “*British girl Joanne*” and “*Chinese girl Xiaoli*”. This was done to avoid gender differences in the remainder of the scenarios.

Combining the cultural background of the friend (British versus Chinese), the type of relationships (Strong versus Weak) and the type of benefits that could be derived (benefit from bridging versus bonding social capital), 16 different scenarios resulted. Male participants were given only the male versions of these scenarios, while female participants were given only the female versions.

Instruments

The decision of Facebook interaction with the friends described in the scenarios was measured through ‘types of Facebook interactions’: observing, communicating and grouping. The construction of the measurement was done through the characteristics of observing, communicating and grouping identified from interview analysis. The measurement for ‘observing’ included the following statements:

- 1) *look at their photos;*
- 2) *look at their conversations;*
- 3) *look at the posts shared by them;*
- 4) *check for updates of their personal information;*
- 5) *look at their activities.*

The measurement for ‘communicating’ included the following statements:

- 1) *leave messages to their wall;*
- 2) *comment on their posts;*
- 3) *privately exchange message with them.*

The measurement for ‘grouping’ included the following statements:

- 1) *Share group information;*
- 2) *Involve in their Facebook events;*
- 3) *Join their group discussion.*

Ratings on the measurement of frequency of Facebook interaction were obtained through a 5-point Likert scale (Never, Rarely, Sometimes, Often, Very Frequently).

The effect was also measured through the ‘content of Facebook interactions’ using three scales: the Emotional Support Scale, the Informational Support Scale and the Self-Disclosure Scale. The Emotional Support Scale and Informational Support Scale were designed to measure the extent to which a participant wanted to support the group of person described in the scenarios on Facebook. These scales were adapted from Krause and Markides’ (1990) Perceived Support Scale. The Emotional Support Scale included four items designed to measure the emotional support participants were willing to give to the person in the scenarios on Facebook (e.g. I would listen to their talk about their private feelings on Facebook; I would be right there with them in stressful situations on

Facebook). The Informational Support Scale that included three items was designed to measure the informational support participants were willing to give to the person in the scenarios on Facebook (e.g. I would give them information that made a difficult easier to understand on Facebook). The Self-disclosure Scale (Wheless, 1978) included seven items and was designed to measure the extent to which participants were willing to disclose their personal information to the people in the scenarios on Facebook (e.g. With this group of friends, my conversation lasts the least time when I am discussing myself on Facebook (reverse item); With this group of friends, I usually talk about myself for fairly long periods at a time on Facebook). The scales for Emotional Support, Informational Support and Self-Disclosure were rated on a 5-point Likert-type rating scale (1=strongly disagree, 5=strongly agree).

Participants were asked to compare what they would normally do with their other Facebook friends, and how much would they be involved in these activities with the group of friends in the scenario.

Overall, participants' answers exhibited high reliability. The Cronbach alpha reliability was calculated as 0.871 for 'observing', 0.772 for 'communicating' and 0.786 for 'grouping'. The Cronbach alpha reliability was calculated as 0.844 for 'informational support', 0.833 for 'emotional support', and 0.734 for 'self-disclosure'.

Procedure

Manipulation Check

An experiment manipulation check was undertaken before data collection. 10 British and 10 Chinese participants were invited to judge whether the descriptions in the scenarios matched their perception of ‘strong relationship’, ‘weak relationship’, ‘benefit of bridging social capital’ and ‘benefit of bonding social capital’ in a pilot study. The key points describing ‘types of relationship’ in the scenarios included:

- 1) *spent a lot of time together;*
- 2) *trust each other and willing to tell each other secret;*
- 3) *shared emotional things;*
- 4) *help and support each other;*
- 5) *don't know each other well;*
- 6) *have a regular chat, only if you happen to see each other on campus;*
- 7) *know little about him;*
- 8) *not in your regular circle of friends.*

Participants were asked to judge how likely these statements are related to the description for a strong and a weak relationship on a 5-point Likert-type rating scale (1=strongly disagree, 5=strongly agree).

The description of ‘benefit’ included:

- 1) *strong and substantive support;*
- 2) *share limited resources;*

- 3) *arrange and mobilize social life;*
- 4) *broaden your social view;*
- 5) *open up opportunities for new resources;*
- 6) *diffuse reciprocity with a wider range of people.*

Participants were asked to judge how likely these statements are related to ‘benefit of bridging social capital’ (i.e. outward looking and new information and opportunities, informational benefits) and ‘benefit of bonding social capital’ (i.e. inward looking, mutual support, interpersonal benefits).

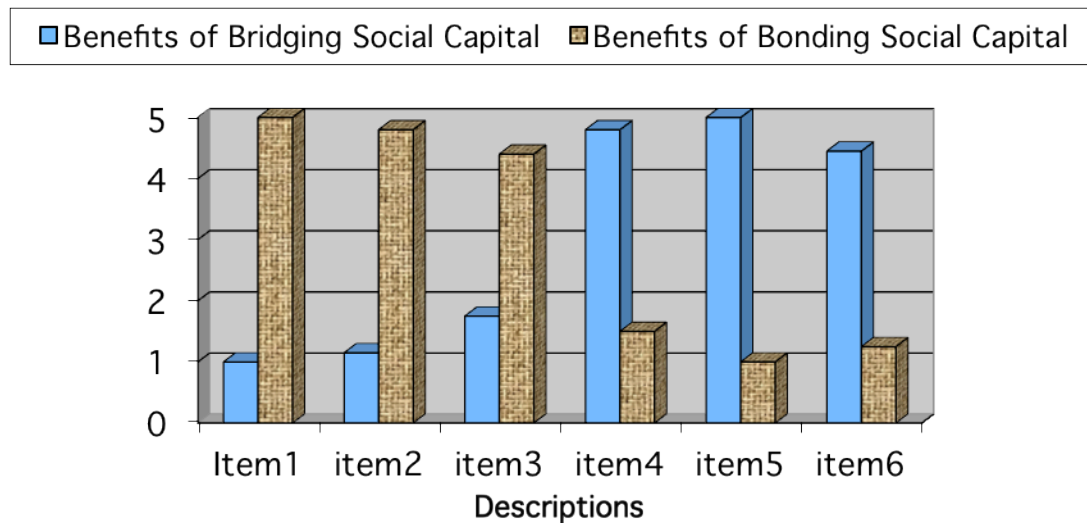


Figure 6.2. Ratings on how the descriptions match the benefits of bridging and bonding social capital

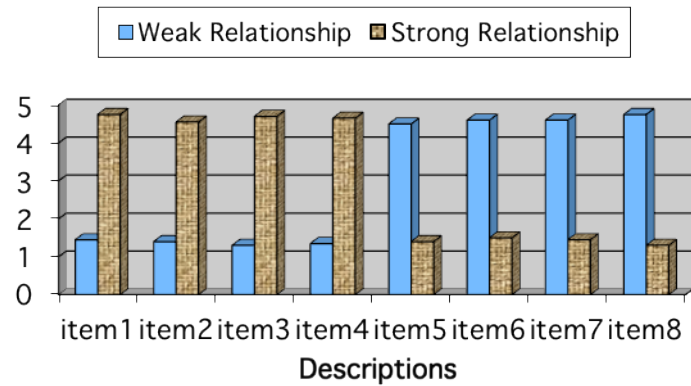


Figure 6.3. Ratings on how the descriptions match strong and weak relationship

As shown in Figures 6.2 and 6.3, participants clearly distinguished between the descriptions of benefits of bridging and bonding social capital, as well as weak and strong relationships.

Data Collection

Data collection was conducted in libraries and computer clusters. Each participant was given one scenario, and given 20 minutes to read the content shown in the scenario. Immediately afterwards, they were asked to fill out a questionnaire which included ‘types of Facebook interaction’ Measurement, the Emotional and Informational Support Scales, the Self-disclosure Scale and an additional set of questions which asked for participants’ basic information such as age, gender, education, duration of Facebook use, number of Facebook friends and their average daily use on Facebook. The total time spent by each participant was approximately 30 minutes.

Participants were reminded that this questionnaire was not testing their general use on Facebook, but their Facebook interactions based on the scenario descriptions. As mentioned before, all the participants chosen in this experiment had certain experience of multi-cultural social networking on Facebook. Before giving them the scenarios, the researcher confirmed whether they had both in-cultural and cross-cultural friends on Facebook and whether they had certain interactions with them. If their answers were yes, then the researcher selected them as participants. Although the names mentioned in the scenarios such as Xiao Li and Phil may not be the actual name of their real friends, the examples given in the scenarios made them think about those groups of friends in their real Facebook network. Moreover, the researcher stressed the ‘types of interpersonal relationships’ and ‘types of benefits’ in the scenarios. Participants could therefore make their decision on how much time and effort they would like to spend with such relationships and such benefits.

Data Analysis

Multivariate Analysis of Variance (MANOVA) was used to test the effect of independent variables - Culture (Chinese or British), Types of Relationship (in-cultural weak, in-cultural strong, cross-cultural weak and cross-cultural strong) and Types of Benefit (bridging or bonding) - upon a number of dependent variables (Observing, Communicating, Grouping, Emotional Supporting, Informational Supporting, Self-disclosure); all were thought to be related to the decisions people make when interacting on Facebook. Demographic variables (Age, Gender, Education, Duration of Facebook Use, Number of Facebook Friends and Average Daily Time on Facebook) were examined

as covariates. Univariate Analysis of Variance (ANOVA) was then used to evaluate the effect of the independent variables on each interdependent variable separately after MANOVA. Scores on all of the scales were calculated by adding the ratings on the items making up each of the scales, as recommended by the original authors. Partial eta squared statistics (partial η^2) were used as estimates of effect size. Partial η^2 was computed considering the variance attributable to the effect of interest plus error. As a general guideline, $\eta^2 = .01$ is considered small, $\eta^2 = .06$ medium, and $\eta^2 = .14$ large. Post-hoc tests for investigating significant interaction effects were done using Tukey HSD which controls the experiment-wise type 1 error.

6.4.4 Results

MANOVA

Box's test was not significant (Box's $M=464.361$, $F=1.068$, $df_1=315$ $df_2=12585.677$, $p=.196$). It tested the null hypothesis that the observed covariance matrices of the interdependent variables were equal across groups. Levene's Test for homogeneity of variance was not significant for any of the dependent variables (all $ps > .05$), suggesting that the error variance of all the dependent variables was equal across groups.

After excluding demographic information as non-significant (all $ps > .05$), MANOVA revealed significant main effects of Participant Nationality (Wilk's Lambda=.784, $F(15,144)=6.119$, $p < .01$), and Type of Relationship (Wilk's Lambda=.663, $F(15,144)=3.273$, $p < .01$). In addition, the interaction between Participant Nationality and Type of Benefit (Wilks' Lambda=.900, $F(15,144)=2.473$, $p < .05$), and the interaction

between Participant Nationality and Type of Relationship were significant (Wilks's Lambda=.786, $F(15,144)=1.857$, $p<.05$). However, the interaction between Type of Benefit and Type of Relationship was not significant ($p>.05$). The three way interaction among Participant Nationality, Type of Benefit and Type of Relationship was not significant either ($p>.05$).

Test of Hypotheses

This section presents the further ANOVA test to evaluate the effect of the independent variables on each interdependent variable separately after MANOVA.

Observing. ANOVA with 'observing' as the dependent variable revealed a significant main effect of Participant Nationality ($F(1,144)=79.781$, $p<.001$, partial $\eta^2=.357$) and a significant main effect of Type of Relationship ($F(1,144)=11.011$, $p<.001$, partial $\eta^2=.187$). In addition, it revealed a significant two-way interaction between Participant Nationality and Type of Relationship ($F(1,144)=8.685$, $p<.001$, partial $\eta^2=.153$) (Figure 6.4). There was no significant interaction between Participant Nationality and Type of Benefit ($p >.05$).

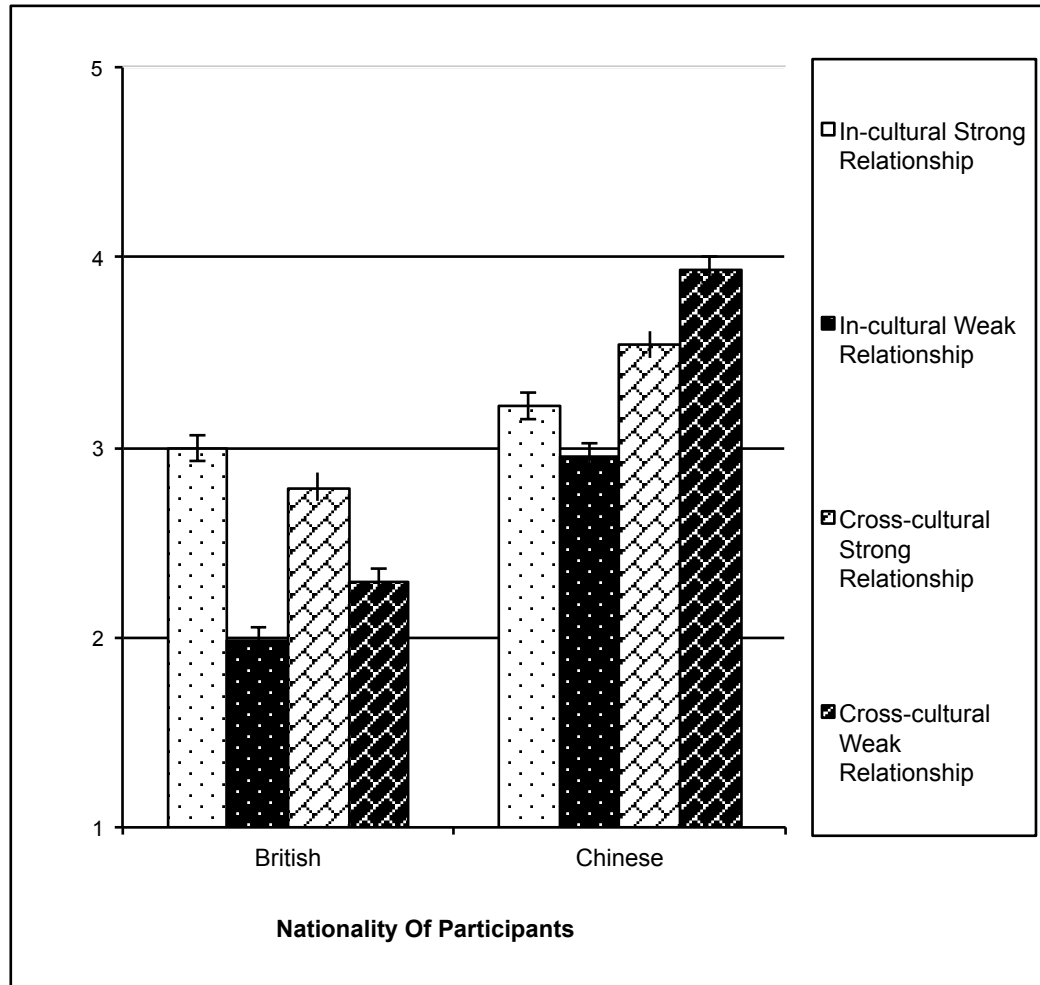


Figure 6.4. The two-way interaction between Nationality of Participants and Types of Relationship on Participants' decision of Observing (Error bars show the standard error)

Post-hoc analysis revealed that British participants tended to spend more time observing strong relationships than weak relationships ($p < .01$). Chinese participants actually spent the most time observing cross-cultural weak relationships ($p < .01$) and were more likely to observe their cross-cultural friends compared to the British participants ($p < .01$). This suggests that strong and weak relationships influence British users' decision on observing, whereas this is not the case for Chinese users. Cross-cultural and in-cultural relationships influence Chinese users' decision on observing, whereas this is not the case for British

users.

Communicating. An ANOVA with ‘communicating’ as the dependent variable revealed a significant main effect of Type of Relationship ($F(1,144)=4.488, p<.01, \text{partial } \eta^2=.086$). It also revealed a significant two-way interaction between Participant Nationality and Type of Relationship ($F(1,144)=2.995, p<.05, \text{partial } \eta^2=.59$) (Figure 6.5). There was no significant interaction between Participant Nationality and Type of Benefit ($p>.05$). Although there was no significant difference in post-hoc analysis, there was a trend that British participants communicated more with strong compared to weak relationships, whereas Chinese participants communicated the most with cross-cultural weak relationship friends. It suggests that the ‘strong relationship and weak relationship’ may affect British users’ decision on communicating, whereas it seemed not the case for Chinese users.

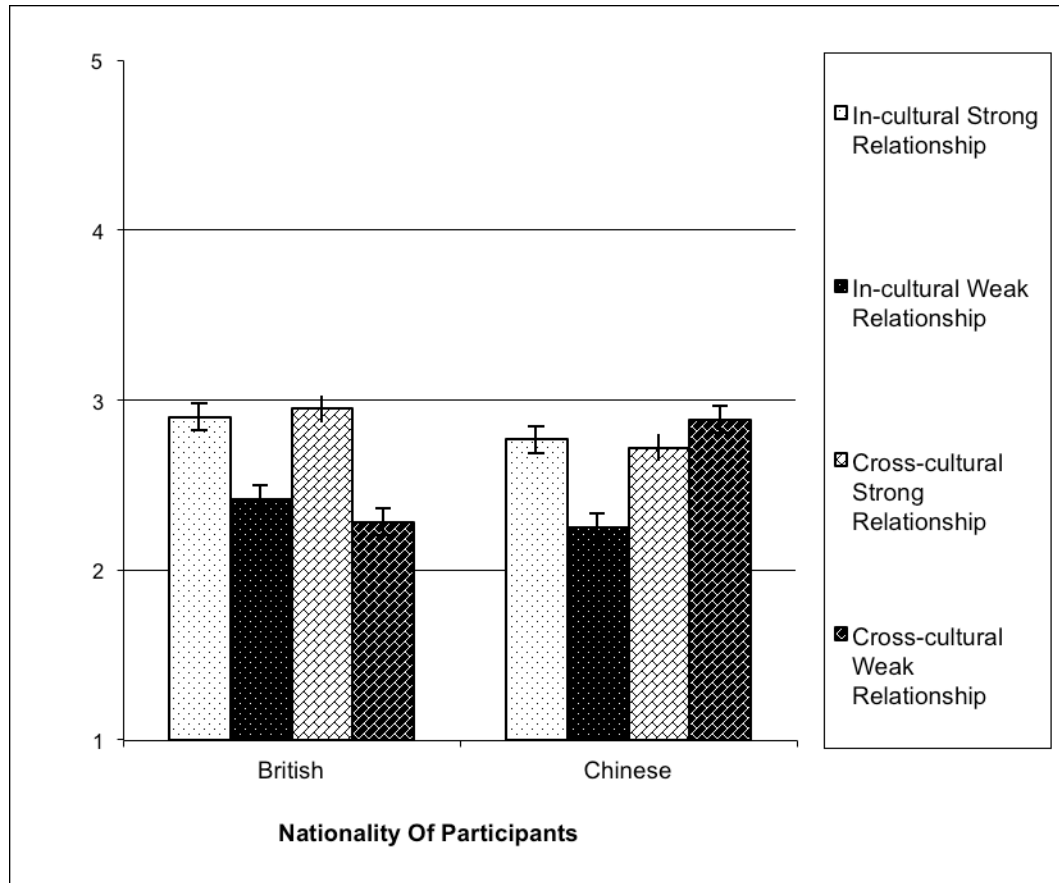


Figure 6.5. The two-way interaction effect between Nationality of Participants and Types of Relationship on Participants' decision of Communicating (Error bars show the standard error)

Grouping. There was a significant main effect of Participant Nationality on participants' score for 'grouping' ($F(1,144)=7.821, p<.01, \text{partial } \eta^2=.052$). There was a significant two-way interaction between Participant Nationality and Type of Benefit on participants' score for 'grouping' ($F(1,144)=5.378, p<.05, \text{partial } \eta^2=.036$). The interaction between Participant Nationality and Type of Relationship was not significant ($p>.05$).

Post-hoc analysis revealed that Chinese participants engage more in 'grouping' on Facebook to gain the 'benefit of bonding social capital' than British participants. It

suggests that ‘benefit of bonding social capital’ affects Chinese users’ grouping behaviours on Facebook more than British users (Figure 6.6).

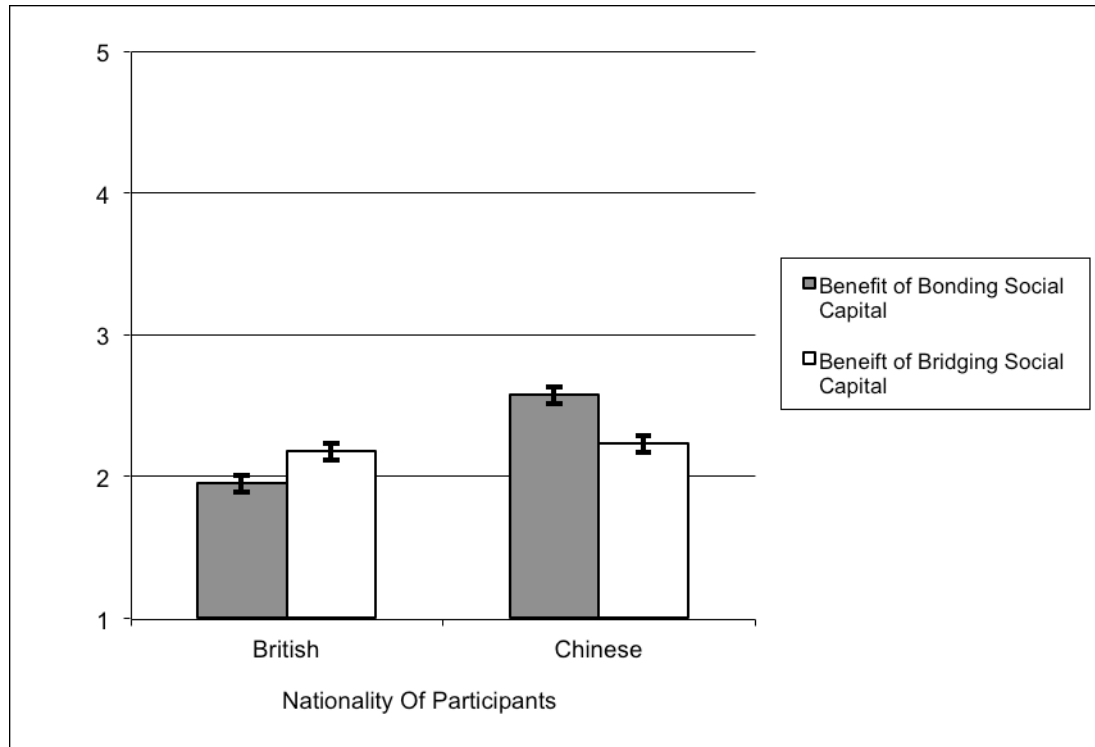


Figure 6.6. The two way interaction effect between Nationality of Participants and Benefit on Participants’ decision of Grouping (Error bars show the standard error)

Providing Emotional Support. There was a significant main effect of Relationship on participants’ rate of Emotional Support ($F(1,144)=9.459, p<.01, \text{partial } \eta^2=.032$). There was also a significant main effect of Benefit on participants’ rate of Emotional Support ($F(1,144)=7.761, p<.01, \text{partial } \eta^2=.051$). Moreover, there was a significant two-way interaction between Participant Nationality and Type of Benefit ($F(1,144)=6.569, p<.05, \text{partial } \eta^2=.044$). The interaction between Participant Nationality and Type of Relationship was not significant ($p>.05$). Post-hoc analysis revealed that Chinese participants engage more in providing emotional support to their friends on Facebook to gain the ‘benefit of bonding social capital’ than British participants. Moreover, Chinese

participants were more likely to offer emotional support to their friends on Facebook to gain the ‘benefit of bonding social capital’ than to gain the ‘benefit of bridging social capital’. It suggests that ‘benefit of bonding social capital’ affects Chinese users’ decision to provide emotional support to others more than British users. It also suggests that the ‘benefit of bonding social capital’ is more influential than the ‘benefit of bridging social capital’ in terms of how much it affects Chinese users’ decision to provide emotional support to others (Figure 6.7).

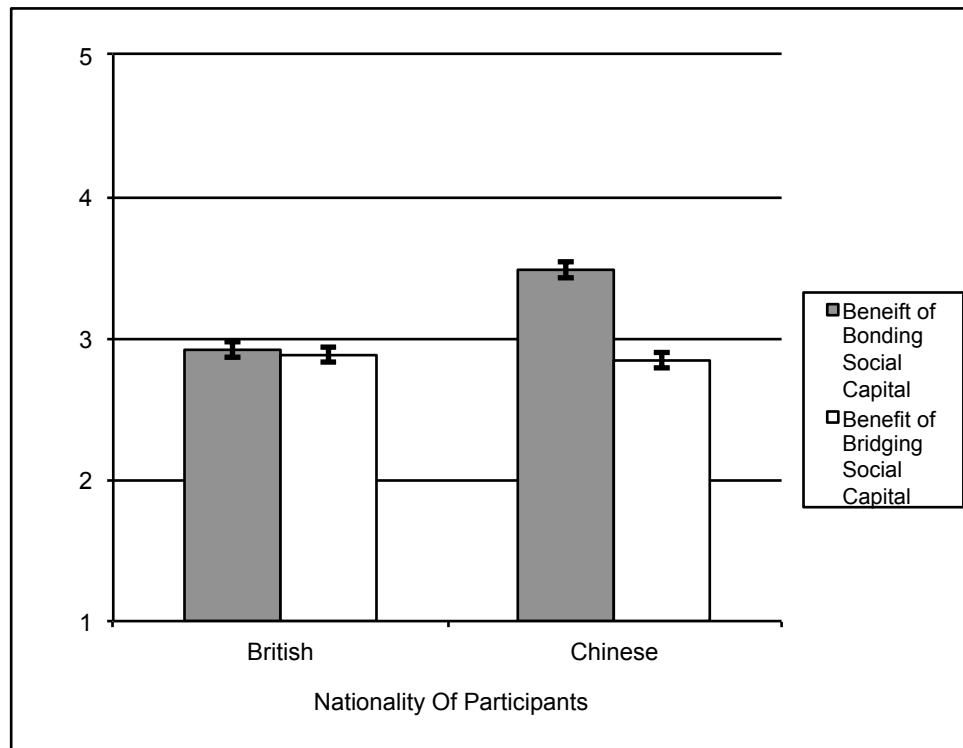


Figure 6.7. The two way interaction effect between Nationality of Participants and Benefit on the Rate of Emotional Support (Error bars show the standard error)

Informational Support. There was a significant main effect of Type of Benefits on participants’ rate of Informational Support ($F(1,144)=7.012, p<.01, \text{partial } \eta^2=.046$). There was a significant main effect of Relationship on participants’ rate of Informational Support ($F(1,144)=7.822, p<.01, \text{partial } \eta^2=.140$). There was also a significant main

effect of Participant Nationality on participants' score of Informational Support ($F(1,144)=7.012, p<.05, \text{partial } \eta^2=.046$). However, no interaction effect was significant ($ps>.05$).

Self-Disclosure. There was a significant main effect of Participant Nationality on participants' rate of Self-disclosure ($F(1,144)=27.310, p<.01, \text{partial } \eta^2=.159$). The main effect of Type of Benefits on participants' rate of Self-disclosure approached significance; however, it was not significant ($F(1,144)=3.841, p=.052, \text{partial } \eta^2=.026$). No interaction effect was significant ($ps>.05$).

6.4.5 Discussion

The nature of the interaction between the variations in relationship types and users' cultural background, and the interaction between the variations in benefit type and users' cultural background were clearly illuminated by this study. This experiment found that the 'type of relationship' affected users' decision of Facebook interactions differently across cultures, thus supporting H1 for this experiment. In particular, British users tended to spend different amounts of time on observing strong and weak relationship friends, whereas Chinese users did not have such a distinction; rather Chinese users tended to spend most of the time observing their cross-cultural weak relationship friends.

This experiment also found that the type of benefit also affects users' decision of Facebook interactions, supporting H2 for this experiment. In particular, the 'benefit of bonding social capital' made Chinese users more likely to provide emotional support and

get involved in the group activities on Facebook compared to the British users.

6.5 General Discussions

Most of the results from the experiment were consistent with the results of the interview analysis; however some results need further discussion.

Firstly, the interview analysis found that types of relationship affected Chinese users' decision on grouping behaviour on Facebook, noting that they tended to group only with strong relationships on Facebook. However, the experiment did not find the relationship affect British users' grouping. The 'benefits of bonding social capital' made Chinese users more likely to get involved in the group activities. Study 2's results suggested that bonding social capital only comes from strong relationships; thus it can be inferred that the 'benefits of bonding social capital' made Chinese users more likely to group, indicating that they tend to group with strong relationships.

The most surprising finding between the interview analysis and experiment results was that the interview analysis found Chinese users tended to communicate mostly with strong relationships; however the experiment results showed that Chinese users were more likely to communicate with cross-cultural weak relationships. The experiment also found that Chinese users were more likely to observe cross-cultural weak relationships than other relationships. The researcher tries to explain this contradiction in two ways. The first explanation is that the interview analysis showed that both the benefits of bridging and bonding social capital were important for Chinese users in their decisions on

Facebook interactions. The benefits of bridging social capital may have brought them new information, new knowledge and new resources. Observing cross-cultural weak relationships may have given them such benefits as (i) observing cross-cultural weak relationships could enlarge their friend circle, thus they may find potential relationships or even potentially strong relationships through observing and communicating with them; (ii) they live abroad and cross-cultural weak relationships can expose them to new knowledge that would help them fit into the environment they live. Compared to cross-cultural weak relationships, cross-cultural strong relationships should be more similar to them, therefore could provide less benefits of bridging social capital; and (iii) compared to cross-cultural friends, in-cultural friends may bring them even less benefits of bridging social capital as they are even more similar to Chinese users. If these assumptions are true, it may be inferred that Chinese users use Facebook as multi-cultural social networking in a more instrumental way. This may be because of the environment for them is different from the environment of British participants (i.e. they live in another country and have a greater need become familiar with their new environment). This may also be because of their cultural background which suggests that people from Eastern cultures are more likely to pay attention to the social environment in which they live (i.e. they may be familiar with in-cultural friends and cross-cultural strong relationship friends already, thus they need to focus more on cross-cultural weak relationships which they are not familiar with). This argument is also supported by the result of Study 1 that suggests that Chinese users tend to pay more attention to the details of others' self-presentation, even if the presenter is not supposed to be a strong friend of the Chinese audience. Secondly, the researcher may suspect that the affordance of technology makes Chinese users observe

and communicate more with cross-cultural weak relationships. In real life, according to previous cultural studies, Chinese people are expected to be shy and stick together mostly with their in-group friends (e.g. they may especially be nervous or reluctant to talk with cross-cultural friends); however it is totally different when they move online for multi-cultural social networking. There is research (Kayan et al., 2006) supporting this argument that demonstrates that Chinese users tend to be more open than usual when they use online chatting tools, especially with strangers. In explaining the results of this study, the researcher thinks Chinese users may be encouraged by the functionality of Facebook. For instance, some cross-cultural weak relationship friends may post something that catches their interests; they may not see this in real life as they may not spend a lot of time with cross-cultural weak relationship friends in a real life context). If this argument is true, the functionality of social networking sites could especially help Chinese users to facilitate their management of cross-cultural weak relationship network and make it beneficial for them.

6.6 Summary

This study, as the third study in this project, identified the factors affecting British and Chinese users' decision on Facebook interactions. Moreover, it tested how much time and effort users would like to spend on certain relationships with certain benefits. The results showed British users tended to observe and communicate with strong relationships, whilst Chinese users tended to communicate and group with strong relationships. Chinese users also like to observe and communicate with cross-cultural weak relationships, although naturally they would mostly communicate with strong relationships. British and

Chinese users therefore do not manage their multi-cultural social networking in a natural way; sometimes the benefits of bridging and bonding social capital may also motivate their behaviours. The next chapter makes general conclusions by summarizing the thesis chapters and linking the results together. Moreover, contributions, implications, limitations and future research will be discussed.

CHAPTER VII CONCLUSION

This project revealed some interesting results, which have both theoretical and practical implications. This chapter will review this thesis by re-capturing the literature review, methodology and empirical results from each study; highlight the strength of the results, in particular the most important findings; and comment upon the research's contributions, in light of its limitations. Possible directions for future research will be put forward.

7.1 Summary of Conclusions

The literature review (Chapter 2) reviewed the theories in social capital and cultural differences and their related applications for research regarding online social capital and online cultural differences respectively; these were part of computer-mediated communication research. Additionally, social networking research was examined, from which the researcher identified three research streams within the area: (i) users' self-presentation on social networking sites; (ii) users' behaviours and management of their social networking sites; and (iii) the effectiveness of social networking through social capital assessment. Based on the literature review, the researcher designed a three level approach for studying the three streams, ranging from the individual level, the network level and the consequence level (Chapter 3).

Study 1 – Individual Level

Cultural differences exist in users' online self-presentation through their different communication styles, however little is mentioned in the literature as to their role in

influencing people's perception of other's online self-presentation. Study 1 therefore aimed to examine (a) whether these cultural differences in communication style of users' online self-presentation influence audience perception, and (b) whether users from different cultural backgrounds have different ways of perceiving other's online self-presentation.

Based on these objectives, Study 1 applied an experimental method to test the effect of the following independent variables - communication styles in self-presentation (Western and Eastern cultures), identity of online self-presentation (Western and Eastern), and participant nationality (British and Chinese) – on these dependent variables - the desirability of interacting with the presenters and the perceived personality of the presenters. Cultural differences in communication styles and identities of presenters were manipulated in four mock Windows Live Space Homepages. Subjects were asked to view one of the homepages and answer a questionnaire to reflect their perceptions.

In reaching the research objectives, this study found cultural differences in online self-presentation did affect users' social perception of the presenters. For instance, the homepage owners with a Western communication style were judged as being more competent than the owners with an Eastern communication style; however Chinese participants thought the homepage owners with an Eastern communication style were more caring. It was interesting to note also that Chinese participants were more likely to interact with the homepage owners with an Eastern communication style.

This study also found users from different cultural backgrounds have different ways of building impressions of other's self-presentation, thus fulfilling the second research objective. British and Chinese participants tended to focus upon different parts of the online self-presentation when viewing other people's online self-presentation. Although leaning slightly towards judging the presenter through their identity, the British participants tended to generate an overall impression about the presenter through both identity information and verbal content. Chinese participants in contrast were more likely to focus on the details of the verbal content in the online presentation, basing their judgement on this. This is consistent with previous cultural theories that suggest people from Eastern cultures tend to pay more attention to the people surrounding them because of their interdependent self-construal. This may explain why Chinese participants went through more details of other people's online self-presentation.

Study 1's major findings suggest that users are aware of cultural differences in others' self-presentation, and that they have different focuses when viewing other users' online self-presentation. These asymmetric perceptions imply the difficulty of cross-cultural communication, and thus drew the researcher's attention towards the effectiveness of cross-cultural communication.

Study 2 – Consequence Level

Social networking with cross-cultural relationships, as a specific phenomenon of social networking, has not been well explored in previous studies. Most previous research on social capital and social networking were predominantly in-cultural. Given Study 1

implies the difficulty of cross-cultural communication, the researcher in Study 2 further tested the amount of cross-cultural social networking, and the outcomes of cross-cultural social networking through cross-cultural social capital. The relationship between cross-cultural social capital and cross-cultural social networking in multi-cultural social networking, at a consequence level, was therefore studied.

Study 2 duplicated Ellison et al.'s (2007) previous study on the relationship between general social capital and social networking; it used the same methodology to research cross-cultural social capital on Facebook among student populations.

The survey primarily aimed to find out the relationship between users' perception of cross-cultural social capital gained from their cross-cultural Facebook friend network, and their perception of the intensity of cross-cultural Facebook interaction. As a minor aim, the researcher looked to identify the level to which university students get involved in cross-cultural social networking on Facebook. This aim was of importance as other researchers may argue that Facebook use was mainly in-cultural.

The survey sample included 200 British and Chinese students from one university, who had cross-cultural friends on Facebook; they were invited regardless of how large their cross-cultural Facebook friend network was. Similar to Ellison et al.'s (2007) study, this survey study applied Putnam's (2000) concepts of bridging and bonding social capital, along with maintained social capital (Ellison et al., 2007), in order to test the value generated from their cross-cultural Facebook networks.

The survey results showed these students engaged in certain level of cross-cultural social networking, although it only counted for a small part of their general social networking on Facebook. The results also showed that cross-cultural bridging, bonding and maintained social capital were positively associated with the greater intensity of cross-cultural interactions on Facebook. These findings were similar to Ellison et al.'s (2007) when researching in-cultural social networking on Facebook. After obtaining these results, the researcher had greater confidence in the connection between social networking and social capital; it was still difficult to tell however whether more social networking caused the increase of perceived amounts of social capital, or vice versa. The second part of Study 2 applied interviews to further investigate the nature of these relationships.

In the interviews, 15 British and 15 Chinese students who participated in the survey study were selected. The researcher asked interviewees about what they did with their cross-cultural friends on Facebook and what they had obtained from such interaction. The researcher asked the interviewees to talk about their different relationships, ranging from strong to weak, which allowed the researcher to fully access different parts of individual users' friend networks on Facebook. This was inspired through a pilot study, when interviewees reported that they had different interactions with different friends, and also previous studies in social capital and interpersonal relationships (Granovetter, 1973). The researcher basically asked interviewees: (1) what do you do with friends on Facebook; (2) with whom; and (3) what do you get from doing these activities?

Through analyzing what the interviewees did on Facebook, the researcher summarized

the following 'Facebook interactions': observing, communicating and grouping. Through analyzing what they got from the activities, the researcher used both top down and up bottom coding, linking the 'benefit' with bridging and bonding social capital. Bringing the categories back to the original data, the researcher found that 'Facebook interactions' with cross-cultural strong or weak relationships received 'benefits of social capital'. The results showed that, in general, both British and Chinese participants reported that they received the benefits of bridging social capital from interactions with both cross-cultural strong and weak relationships; however they only received the benefits of bonding social capital from interactions with cross-cultural strong relationships. From these findings, it can be suggested that social networking can bring the benefits of social capital, which makes users perceive the value of social capital. These perceptions make them want to put more effort into online social networking.

While British and Chinese users reported similar ways of getting the benefits of bridging social capital, they also reported different ways of getting the benefits of bonding social capital. For Chinese users, they attained substantive support from *communicating* with cross-cultural strong relationships, and received substantive support and access to limited resources from *grouping* with cross-cultural strong relationships. For British users, the power of mobilizing solidarity through grouping with cross-cultural strong relationships, was the only benefit of bonding social capital they received; there were no reports of other benefits of bonding social capital being obtained. The two main differences to be drawn from these findings are firstly, Chinese users reported more ways of deriving benefits of bonding social capital than British users, and received a greater amount;

secondly, Chinese users reported having benefits such as substantive support and limited resources in order to help themselves, whereas British users reported getting the benefit of mobilizing solidarity to fulfil their personal goal(s). It seems that Chinese users manage relationships, but British users manage networks. This result was consistent with the previous cultural theory (Markus & Kitayama, 1991) that suggests people from Eastern cultures tend to maintain relationships and live interdependently with certain others. People from Western cultures tend not to receive direct support from others, instead, they live more independently. Their friend networks are though still important for them to fulfil their personal interest.

Study 3 – Network Level

Study 3 aimed to explore what factors affect users' decision making on social networking interactions in a multi-cultural environment. During the Study 2 interviews, the researcher did not only ask interviewees about their cross-cultural interactions, but also their in-cultural interactions. This helped the researcher to understand the full picture. Moreover, the researcher asked the interviewees to explain why they performed certain activities on Facebook. This enabled the researcher to identify factors that influence their management of their Facebook friend network in a multi-cultural environment.

The initial coding process for the data was undertaken together with the interview analysis for Study 2, resulting in the categories being similar to the ones used in Study 2; however, the final step of analysis was different. The interview analysis in this study applied the concept of grounded theory to systematically identify the main story line

embedded in users' management of their Facebook friend networks in a multi-cultural social networking environment. The results found 'types of relationships' and 'benefits of social capital' were the factors affecting users' decision-making on 'Facebook interactions'. Moreover, these influences had different ways of affecting users from different cultural groups. To illustrate, the relationship strength determines what kind of Facebook interaction users will mainly choose with friends. British users preferred to observe and communicate with strong relationships, rather than weak relationships; though they do not exclude weak relationships in grouping. However, on the Chinese side, they preferred to communicate and group with those they had strong relationships with, rather than weak relationships; though they still tended to spend time on observing weak relationships. This is an important finding as it shows the preference of British and Chinese Facebook users in their management of multi-cultural social networking. It is surprising to see that users mentioned that the strength of the relationship (strong vs. weak) will affect their interaction decisions however the role of cross-cultural and in-cultural relationships was not reported in the interviews. The researcher thinks this may be because users can feel cultural differences through their cross-cultural social networking, however did not explicitly specify in-cultural and cross-cultural relationships when making decisions of interactions. Further to this, 'benefits of social capital' also makes both British and Chinese users want to spend time on certain Facebook interactions. The benefits of bridging social capital makes British users want to spend time on observing and communicating with some weak relationships; whereas the benefits of both bridging and bonding social capital make Chinese users want to do so. It shows that 'benefits of social capital' is not only the outcome of social networking

interactions, but also the motivation of these interactions. In most situations, people make decisions on social networking interactions in a natural way – through the nature of relationship; however, sometimes the perceived benefits of social capital also affect their decisions.

In order to further assess the reliability of these findings, the researcher undertook another experiment to test the findings from the interview analysis in Study 3. In accordance with the results, the researcher set up the independent variables as ‘types of relationships’, ‘benefits of social capital’ and ‘cultural background’. The dependent variables were ‘frequency of Facebook interactions’ and ‘content of Facebook interactions’. The results of the experiment confirmed most findings of the interview analysis, such as British and Chinese users’ preferences and the influence of ‘benefits of social capital’ on their Facebook interaction. However, the experiment found an exceptional result; Chinese users tended to observe and communicate mostly with cross-cultural weak relationships on Facebook. Markus and Kitayama (1991) stated interdependent selves are more likely to include others into consideration when they make decisions than independent selves. It appears that Therefore, understanding others surrounding them is important. Facebook opens up more opportunities for interdependent-self individuals to see more aspects of their weak friends, especially cross-cultural weak friends’ life. They may take the opportunity to use Facebook facilities to understand their weak friends better.

In summary, this thesis research investigated multi-cultural social networking through

three levels:

Individual level. Cultural differences have been found to exist not only in people's online self-presentation, but also in people's perception of others' self-presentation. Furthermore, cultural differences in online presentation tend to affect the audience's perception, though these perceptions sometimes come from stereotypes and identity. Based on these cultural differences, audiences are more likely to have a positive attitude towards the presenter who is similar to them. These findings bring out the differences in perceptions of other people's online self-presentation in social networking, and the difficulty of cross-cultural social networking from a psychological perspective.

Consequence level. Cross-cultural relationships and cross-cultural interactions were found to exist on Facebook, although the amount is not as much as with in-cultural interactions. Cross-cultural social networking on Facebook is positively associated with cross-cultural bridging and bonding social capital. It is also related to cross-cultural maintained social capital, although not as much as with bridging and bonding social capital. The researcher infers that the relationship between social capital and social networking can be stated as: the perception of the possibility of obtaining social capital on Facebook will determine a user's desire to interact on Facebook. Such desirability motivates users to invest more in Facebook interactions and hence receive the actual benefits of social capital. In terms of cultural differences, Chinese users perceived greater amounts of cross-cultural bonding social capital, through deriving the benefits of it (i.e. substantive support and access to limited resources) from more channels, compared to

British users.

Unlike the results at the individual level that suggested cross-cultural communication is difficult, the results for the consequence level demonstrated that cross-cultural social networking is positive for building cross-cultural social capital and getting the benefits of it. Moreover, the results of this study summarize through which ways users can attain the benefits of social capital.

Network level. Relationships and benefits of social capital were found to affect users' decision-making on social networking interactions across cultures in a multi-cultural social networking environment. British users prefer to observe and communicate with strong relationships, whilst Chinese users tend to spend more time on observing and communicating with cross-cultural weak relationships. Their decisions were also sometimes determined by the benefits of social capital. In particular, British users had a greater need for the benefits of bridging social capital, whereas Chinese users' decisions were influenced by both the benefits of bridging and bonding social capital.

These results were explored through an interview analysis about people's decision-making and tested through an experiment. From the comparison of the two parts of the study, the researcher can confirm that 'relationship' and 'benefit of social capital' affect users' decision-making on their Facebook interactions. This result reflects how people manage their multi-cultural social networking. Social capital has been found to be not only the outcome of social networking, but also could be the driver of social networking.

Chinese users have a greater need for bonding social capital, reflecting their cultural values that emphasize mutual support with friends. When discussing Chinese users' preference of getting bridging social capital from cross-cultural weak relationships, it cannot be said that it is purely based on their cultural background, as their environment may make them use multi-cultural social networking more instrumentally with cross-cultural weak relationship friends.

7.2 Contributions and Implications

In the introduction of this thesis, the researcher stated this project would contribute to the cross-cultural computer mediated communication research, especially the current studies on cultural difference, social networking and social capital.

1) *Cultural Differences*. Firstly, this project found cultural differences in people's perception of others' self-presentation in multi-cultural social networking. British users were more likely to form a general impression while Chinese users tended to go deeper into details when they view other users' online self-presentation and make judgement about the presenters' personality and their desirability of interacting with the presenters; this is consistent with Nisbett et al.'s (2001) cognitive style theory (i.e. interdependent selves tend to pay more attention to the relationships of elements and background, therefore they are more likely to focus on details and context; independent selves tend to focus on salient objects with intent to manipulate them, therefore they are more likely to generate an overall impression). Secondly, this project found cultural differences in people's social capital building in multi-cultural

social networking. Chinese users built greater amounts of bonding social capital through more channels than British users; again, this is consistent with Hofstede's (1983) cultural theory that says people from Eastern cultures tend to live interdependently with one another. They may therefore find greater opportunities to develop their bonding social capital through increasing the frequency of interaction and reciprocity, improving intimacy and trust through these interactions. Conversely, they may also rely more on the benefits of bonding social capital to support their actions. Thirdly, Chinese users tended to communicate and group mostly with strong relationships, compared to British users, who tended to observe and communicate mostly with them. Relationship strength did not factor for Chinese users when observing others, nor for British users when grouping others. This finding is also consistent with the result of previous cross-cultural studies. For example, Hui and Triandis (1988) suggested that people from collectivist cultures are more likely to behave and interact differently with strong relationships and weak relationships compared to people from individualist cultures. In all, the results about cultural differences in this project are well connected with previous cross-cultural studies.

- 2) *Social Networking Sites*. Firstly, although previous research on social networking sites reported a number of Facebook interactions, not many studies summarized them. This project summarized Facebook interactions as observing, communicating and grouping based on the number of persons involved in each kind of interaction. These categorizations may be used for future research on social networking sites. Secondly, this project identified a few factors that affect people's decision-making on Facebook interactions; in particular, it highlighted the importance of interpersonal relationships

and social capital, which could be the drivers of certain social networking behaviour.

- 3) *Social Capital*. The relationship between social capital and social networking in both an online and also cross-cultural context was confirmed. It proved that social networking can bring certain benefits. Like Putnam (2000) said, social networks are the basis of getting social capital, and interactions are necessary to increase social capital. Furthermore, this project provided a different point of view for a big debate between interpersonal relationships and social capital. Literature agrees that bonding social capital mainly comes from strong relationships; however it is arguable whether bridging social capital mainly comes from weak relationships. This project showed strong relationships can also provide the benefits of bridging social capital, according to the specific feature of online social networking (i.e. it reveals more sides to an individual and make more resources from an individual visible through social networks). This project also offered an understanding about what kind of benefits an individual may obtain and how online social networks can bring benefits of social capital to individual users. Finally, previous research on social capital and social networking mostly talked about social capital in general. This project mainly concentrates on online social capital (i.e. what people build in their online friend network and what they can get directly from social networking sites). This is a new perspective contributing to this field.
- 4) *CMC research*. Three levels of research in online social networking were identified and different research approaches were applied to the different levels. These levels were not only identified through literature, but were also in accordance with the feature of social networking sites. This project only conducted one study at each level,

thus there is room for future research to dig out more at each level.

As mentioned in Chapter 1, the results of this project aimed to make some practical implications, specifically for system designers, multi-cultural companies and multi-cultural social networking users.

- 1) *System designers*. System designers should be aware of the cultural differences shown in this study in order to make Western designed platforms better for use by Eastern users. For example, this project found British and Chinese users' have different focuses when presenting themselves and when perceiving others (general views vs. detailed verbal content). System designers could offer more functions to allow users to present through verbal content; for instance, this project found Chinese social networking users have a greater need for building bonding social capital. System designers could provide more channels of improving relationships (e.g. virtual gift on social networking sites), thus facilitating the building of bonding social capital. This project also found that British and Chinese users have different needs for Facebook groups: one for all kinds of friends and one for small groups of friends. System designers could change the group settings to allow people to create group actions based on their own needs (e.g. public, secret). Another example is, this project found British and Chinese users have different preferences of interacting with different relationships. System designers could offer functions for people to manage their friend networks based on relationships and their own preferences.
- 2) *Multi-cultural companies and social networking users*. Both multi-cultural companies

and multi-cultural social networking users should be aware that benefits can be brought from interacting through online social networks. Companies could benefit from information sharing and mutual support among employees. Individual users could directly get benefit such as information sharing and mutual support from their interactions, however they should also be aware of the cultural differences in online social networking. For example, by understanding Chinese users are likely to communicate with friends in order to build mutual support, this would help their cross-cultural friends in responding to their needs. Understanding that Chinese users prefer to stick together within small groups could reduce misunderstandings and conflicts between their cross-cultural friends and them. Moreover, understanding British users tend to mobilize solidarity through group activities would be effective for their cross-cultural friends to get better involved in the interactions.

7.3 Limitations

This project has some limitations that need to be acknowledged.

- 1) *Environment on Facebook.* The situations on Facebook seemed unfair between British and Chinese users, as Chinese users have a wider choice of social networking sites to choose from, such as Windows Live Spaces at an early stage and Chinese social networking sites (i.e. RenRen, Qzone) at a later stage. Facebook may or may not be their first choice. Facebook may also only contain part of their friend network (Facebook is also banned in China). British users can also register on one or more social networking sites; however they mostly use Facebook as the main social networking site. Facebook may contain the whole or

most of their friend network. The situations on Facebook are therefore different between British and Chinese users. Chinese users connect to certain friends (mostly cross-cultural) on Facebook more instrumentally whereas British users interact with friends more naturally. The researcher cannot ignore the possible influence of this difference on users' attitude towards Facebook; it can thus be considered as a limitation. However, the researcher argues that it cannot dramatically affect the validity of the results for the following reasons. Firstly, this project assessed not only the interactions between British and Chinese users, but also examined their interactions with friends from other cultures. This increased the similarity of their environment. Secondly, Study 3 asked participants the reasons behind each interaction, not just general Facebook use. It is all about what the users will consider when they perform single activities on Facebook, not their general motivations of using Facebook and the factors that affect their general use of Facebook; these factors were affected less by the environment of participants. Lastly, Chinese and British participants reported they received different benefits from cross-cultural social networking. For example, Chinese users mentioned they obtained information about living in the UK or on how to improve their language ability; British users mentioned they understood more about other cultures. These different benefits were all summarized into the category - benefits of social capital. What users exactly got was therefore not important in this project; rather, through which ways they receive these benefits were more vital.

2) *Cultures*. This project used British and Chinese users to represent Western and

Eastern cultures, as it helped to connect this project to previous cultural theories and cultural studies. It was also useful for dividing and defining in-cultural and cross-cultural relationships. Nevertheless, the differences this project found between British and Chinese users are only valid for British and Chinese cultural groups. It can be inferred that it may apply to Western and Eastern cultures; however a concrete generalization of the findings cannot be made. Generalizability is limited by the samples; for example, one cannot say that British and French users would produce similar results, even though they are both considered as being from Western cultures.

- 3) *Social Networking Sites*. This project mainly focused on Facebook. Its results may be used and compared with those of future studies on Facebook. However, the results are strongly linked with the feature of Facebook. For example, this project identified that users have three types of interactions: observing, communicating, and grouping. It may be different if the research was on a different site, such as IBM beehive. Furthermore, only student groups were compared. Multi-cultural social networking in a working environment, such as graduates' Facebook use or in job-hunting environment (e.g. LinkedIn) may be different.
- 4) *Chinese samples' background*. The Chinese samples in this project were all overseas students in the UK. As such, they may be affected by other cultures through their living experiences in the UK. It is not a major limitation, as a few years' living experience cannot change the way of thinking, living and interacting. These cultural values and aggregations are rooted in the environment, philosophy, history and education of the society in which the individuals were brought up in.

Having said this, one has to acknowledge its possible influence on the findings.

7.4 Future Research

Having considered the results as well as the limitations of this project, future research could address the following issues:

- 1) This project has only shown the cultural differences at a national level: British and Chinese. Future research could involve more national groups in Western (e.g. French) and Eastern cultures (e.g. Korean), in order to research cultural differences between people from Western and Eastern societies. Future research could also look at other cultures: Middle Eastern, South American and African cultures.
- 2) Future research could pay attention to culture at other levels: 1) social networking use in professional “culture” (e.g. lawyers, accountants, medical doctors); 2) age-related “culture” (i.e. people at different age ranges) and “lifestyle culture” (i.e. people may have different habits of using social networking). These two “cultures” may overlap to a certain extent. For example adults who have family, young adults, adolescents, are different in age groups. They may also have different habits of using social networking due to different life styles; 3) social networking cultures: social networking relies a lot on its own objectives, features and facilities. Users on different sites share the culture associated with the elements mentioned previously specific to that site (Dwyer et al., 2007). Facebook helps people to interact socially, attracts mostly student population, and provides automatic updates about linked users. However,

Linkedin allows people to interact professionally, is popular among business people employees, and have features such as the endorsement of endorses other members' expertise in a certain field.

- 3) This project has focused on participants from one university network on Facebook. The advantage was that they were from the same environment – a real multi-cultural social networking environment. In this situation, participants were geographically bounded. Future research could look at British users in Great Britain and Taiwanese users in Taiwan (by the fact that Chinese people cannot access Facebook in Mainland China). In this situation, participants would not be geographically bounded.
- 4) Future research could also pay attention to a wider range of user groups and other social networking sites. To illustrate, Beehive is a social networking site used among IBM employees. It may have users from all over the world, thus it would be interesting to see how cultural differences affect these users' interactions on this site in such a working environment.

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APPENDIX I MSN HOMEPAGES FOR STUDY ONE

!*Flange*!
life is a terminal condition

Profile
Emily Suttor



Occupation
Student
Location
Manchester
[View profile details](#)

Blog
April 16
Thesis

Its Monday today and I can't be bothered doing any work at all. I emailed my supervisor for a meeting but she hasn't replied. Great! I spent most of last week dwelling about my thesis. On Thursday I got together for a chat with my supervisor. I was miffed because she did not agree with the research topic I envisioned doing. We had a long sit down however I got more and more frustrated as I could not sell her on my idea. I showed him my results and she wasn't impressed. We had a bit of an argument and I told her that the results were good but she just didn't seem to agree. I was really keen to stay with that topic so I did not fancy changing it one bit. Furthermore I think it is very useful to research as it smoothes over the gap between cognitive science and computer science. In her words I was told to "step up to the plate" and conjure up a better idea. I have been thinking about what was said over the weekend and I came to the opinion that I should give my research a re-think and narrow it down as well as restructure the research questions. Anyway, I know the beginning of the dissertation will be a chore. Maybe I really need to start going to the gym again to get my 'muscles' back?

1:56 PM | [Add a comment](#) | [Permalink](#) | [View trackbacks \(0\)](#) | [Blog it](#)

Birthday

Today was my birthday and I was up and about at 5 this morning like a little kid on Christmas. But I was hung-over beyond belief. Yesterday we started the night by going to watch Chris' play, it was great but I had the fright of my life when some scally woman in the audience stood up in the middle of it and started shouting out, in the end it turned out to be all part of the show, hilarious! Then we ended up having a few drinks at my flat and we went to some random bar in town, I can't remember its name but it was good! At the end of the night we went for a curry in Rusholme it went down a treat! I usually detest birthdays cause they mean I'm getting on.... But who's to care? I'm gonna get older, birthday or not, right? So I went out for sit down dinner to celebrate and I was going to Tony&Guy for a makeover. At night, I was looking at Facebook to see how many birthday salutations had come in, by the way, it's only a little after 6 pm right now. My father usually send me a text message on my birthday so I'm kind of chuffed about that too.

1:54 PM | [Add a comment](#) | [Permalink](#) | [View trackbacks \(0\)](#) | [Blog it](#)

Life is like a boat

There is a small sail boat on the river

[Profile](#)

[Ang Song](#)



Occupation
Student

Location
Manchester

[View profile details](#)

[Blog](#)

April 16

[Thesis](#)

After eight months of hard work, most of us passed all the exams and would progress to the final stage. A handsome professor was allocated to me to guide me in the thesis writing. He seems around 50 or 60 years old but very kind. I knew him because I attended one of his courses about computer science. He asked us, "How many of you know about the Matrix?" All of us raised up our hands. He laughed and said, "I don't mean the movie". Then everyone put their hands down and smiled. In the initial meeting with him, he mentioned the difficulties of the dissertation and his rigorous requirements which made me quite scared. It seemed like he could read my mind because he told me not to worry about it and give some very useful instructions. He said I should find the key articles in this area and then search some other journals surrounding the key publications. I need to try to bridge the gap between the research fields. I appreciate his encouragement and supervision. July and August are the best seasons for my other friends to travel, but... I need to make every effort with my research to please my supervisor.

1:42 PM | [Add a comment](#) | [Permalink](#) | [View trackbacks \(0\)](#) | [Blog it](#)

[Birthday](#)

Woke up early this morning by Mom's call. Mom kissed me happy birthday and told me I can choose what I want from her. What a beautiful morning indeed. So I did not give up dreaming until the sunshine burned my buns. All of a sudden, Bill, Catherine, Alex & Rachel turned up in front of my house shouting "Get your present" to me. It scared me, surprised me but made me quite excited. I became dumbstruck and forgot to invite them into my house. There is nothing better than growing another year older with wishes from my friends. We have had a close friendship for more than ten years but it is the first time they have come to my house. To be honest, my house is small and not very clean. But they said they would like to hold the party in my house in order to save money for me. I was glad to accept their suggestion and decided to cook for them. Frankly speaking, my cooking skills were still out of the doorstep. The food did not seem enough to fill everybody. But they all turned up their thumbs to me and said they enjoyed the self-catering night. They really overpraised me but I was still happy. I really appreciate them for coming to visit me on such a special day.

1:36 PM | [Add a comment](#) | [Permalink](#) | [View trackbacks \(0\)](#) | [Blog it](#)

APPENDIX II EXPERIMENT QUESTIONNAIRE IN STUDY ONE

Section 1.

Instructions: Please indicate the degree to which you agree or disagree with the following statements as they apply to _____

Use the following scale and write one number before each statement to indicate your feelings. 5 = Strongly agree; 4 = Agree; 3 = Undecided; 2 = Disagree; 1 = Strongly disagree

- _____ 1. She is a typical goof-off when assigned a job to do.
- _____ 2. It would be difficult to meet and talk with her.
- _____ 3. We could never establish a personal friendship with each other.
- _____ 4. She is somewhat ugly."
- _____ 5. I think she could be a friend of mine.
- _____ 6. I would like to have a friendly chat with her.
- _____ 7. I think she is quite pretty.
- _____ 8. She would be a poor problem solver.
- _____ 9. I find her very attractive physically.
- _____ 10. I don't like the way she looks.
- _____ 11. She just wouldn't fit into my circle of friends.
- _____ 12. She is very sexy looking.
- _____ 13. I have confidence in her ability to get the job done.
- _____ 14. If I wanted to get things done, I could probably depend on her.
- _____ 15. I couldn't get anything accomplished with her.

Section 2.

Instructions: On the scales below, indicate your feelings about her: Numbers 1 and 5 indicate a strong feeling. Numbers 2 and 4 indicate a fairly weak feeling. Number 3 indicates you are undecided.

- 1) Intelligent 1 2 3 4 5 Unintelligent

- 2) Untrained 1 2 3 4 5 Trained
- 3) Cares about me 1 2 3 4 5 Doesn't care about me
- 4) Honest 1 2 3 4 5 Dishonest
- 5) Has my interests at heart 1 2 3 4 5 Doesn't have my interests at heart
- 6) Untrustworthy 1 2 3 4 5 Trustworthy
- 7) Inexpert 1 2 3 4 5 Expert
- 8) Self-centered 1 2 3 4 5 Not self-centered
- 9) Concerned with me 1 2 3 4 5 Not concerned with me
- 10) Honorable 1 2 3 4 5 Dishonorable
- 11) Informed 1 2 3 4 5 Uninformed
- 12) Moral 1 2 3 4 5 Immoral
- 13) Incompetent 1 2 3 4 5 Competent

- 14) Unethical 1 2 3 4 5 Ethical
- 15) Insensitive 1 2 3 4 5 Sensitive
- 16) Bright 1 2 3 4 5 Stupid
- 17) Phony 1 2 3 4 5 Genuine
- 18) Not understanding 1 2 3 4 5 Understanding
- 19) Interdependent 1 2 3 4 5 Independent
- 20) Indirect 1 2 3 4 5 Direct
- 21) Reserved 1 2 3 4 5 Open
- 22) Implicit 1 2 3 4 5 Explicit
- 23) Relationship-oriented 1 2 3 4 5 Task-oriented
- 24) Hierarchical 1 2 3 4 5 Social Equal

25) Long-term orientation 1 2 3 4 5 Short-term orientation

Section 3

Please think about where does this person come from?

Please briefly explain why?

APPENDIX III SURVEY QUESTIONNAIRE IN STUDY TWO

Dear Participant,

Thank you for participating in this survey. The purpose of this study is to learn more about the benefits you get from interacting with students who are from different cultural backgrounds than you on Facebook. This survey will take approximately 10 minutes to complete. Please read through the statements and questions and answer them carefully based upon your attitudes. Your reply will be strictly confidential and will be analyzed anonymously. If you have any questions about this survey, please contact: Yifan Jiang via e-mail at: yifan.jiang@postgrad.manchester.ac.uk.

While you are answering these questions, please notice that the term “culturally different countries”: we are interested in Western cultures (e.g. West Europe, North America and Australia) and Eastern cultures (e.g. China, Japan, Korea, Singapore, Hong Kong) and other cultures. If you are British, then consider Eastern culture and other cultures as culturally different countries. If you are Chinese, then consider Western culture and other cultures as culturally different countries.

Please also note that SNS is short for Social Networking Sites (e.g. Facebook, Orkut, Hi5, MySpace, Windows Live Space, Qzone, Renren)

About Yourself	
Gender	Male Female
Nationality	British Chinese
Age	
Education	Undergraduate Postgraduate taught Postgraduate research Alumnus
Years in university	
Local Residence	on campus off campus

SNSs usage and the Intensity of cross-cultural interaction on Facebook	
How many SNSs account do you use?	
Most important SNS	

Second most						
How long have you been using Facebook?	Less than one week	One week to one month	One month to half a year	Half year to one year	One year to two years	More than two years
About how many total friends do you have on Facebook?	10 or less	11-50	51-100	101-150	151-200	More than 200
About how many friends from culturally different countries do you have on Facebook?	10 or less	11-25	26-50	51-75	76-100	More than 100
In the past week, on average, approximately how many minutes per day have you spent on Facebook?	less than 15	16-30	31-60	1-2 hours	2-3 hours	More than 3 hours
What percentage of this time is spent on interacting with friends from culturally different countries?	Not at all	<10%	11-25%	25-50%	50-75%	75-100%

Instruction: Please indicate the degree to which each statement applies to you by marking whether you: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5.						
I'm proud to tell people that I interact with friends from culturally different countries on Facebook.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
The number of people who are from culturally different countries within my Facebook network keeps increasing.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
Friends from culturally different countries have become important parts of my Facebook life.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
I feel the groups and networks I have joined on Facebook always include people from different cultural background.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
I would be sorry if I only have friends from my own culture within my Facebook network.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
Interacting with people from culturally different countries is part of my everyday activity on Facebook.						
Strongly Disagree	1	2	3	4	5	Strongly Agree

Below is a series of statements concerning intercultural communication. There are no right or wrong answers. Please work quickly and record your first impression by indicating the degree to which you agree or disagree with the statement. Thank you for your cooperation.						
1, I enjoy interacting with people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
2, I am pretty sure of myself in interacting with people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
3, I find it very hard to talk in front of people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
4, I always know what to say when interacting with people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
5, I can be as sociable as I want to be when interacting with people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
6, I feel confident when interacting with people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
7, I tend to wait before forming an impression of culturally-distinct counterparts.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
8, I am open-minded to people from different cultures.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
9. I often give positive responses to my culturally different counterpart during our interaction.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
10, I avoid those situations where I will have to deal with culturally-distinct persons.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
11, I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
12 I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.						
Strongly Disagree	1	2	3	4	5	Strongly Agree

Instruction: Please indicate the degree to which each statement applies to you by marking whether you: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5						
1, Interacting with people from culturally different countries within my Facebook network helps me to stay in touch with what is new and popular.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
2, Interacting with people from culturally different countries within my Facebook network reminds me that everyone in the world is connected.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
3, I am happy to help out someone from culturally different countries within my Facebook network.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
4, Talking with people from culturally different countries within my Facebook network makes me curious about other places in the world.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
5, Interacting with people from culturally different countries within my Facebook network makes me feel like part of a larger multi-cultural community.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
6, Interacting with people from culturally different countries within my Facebook network makes me interested in what people unlike me are thinking.						
Strongly Disagree	1	2	3	4	5	Strongly Agree

1, There is someone from culturally different countries within my Facebook network would be good job references for me.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
2, I can organize some of my close friends who from culturally different countries within my Facebook network to take part in a protest.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
3, There is someone from culturally different countries within my Facebook network would put reputation on the line for me.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
4, There is someone from culturally different countries within my Facebook network I always trust to help solve my problems.						
Strongly Disagree	1	2	3	4	5	Strongly Agree

5, When I feel lonely, there is someone from culturally different countries within my Facebook network I can talk to.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
6 If I need an emergency loan of £50, I think I can turn to someone from culturally different countries within my Facebook network.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
7, I think there is someone who from culturally different countries within my Facebook network I can turn to for advice about make very important decisions.						
Strongly Disagree	1	2	3	4	5	Strongly Agree

In this section, if you haven't graduated yet, please give free rein to your imagination based on your current experience.						
1, After graduation, I'd be able to find out about events in another country from university acquaintances who are from culturally different countries on Facebook.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
2, If I needed to, via Facebook, I could ask university acquaintances who are from culturally different countries to do a small favour for me after graduation.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
3, On Facebook, I would be able to get in touch with university acquaintances who are from culturally different countries if travelling to a different country after graduation.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
4, After graduation, I would be able to find information about a job or internship from university acquaintances who are from culturally different countries on Facebook.						
Strongly Disagree	1	2	3	4	5	Strongly Agree
5, After graduation, it would be easy to find university acquaintances from culturally different countries to invite to my university reunion on Facebook.						
Strongly Disagree	1	2	3	4	5	Strongly Agree

APPENDIX IV PRE-INTERVIEW QUESTIONNAIRE

Please estimate how many cross-cultural strong relationship, cross-cultural weak relationship, in-cultural strong relationship and in-cultural relationship you have within your Facebook network.

Cross-cultural Strong:

Cross-cultural Weak:

In-cultural Strong;

In-cultural Weak:

Note 1: we are interested in Western cultures (e.g. West Europe, North America and Australia) and Eastern cultures (e.g. China, Japan, Korea, Singapore, Hongkong) and other cultures. If you are British, then consider people from Eastern culture and other cultures as your cross-cultural friends. If you are Chinese, then consider people from Western culture and other cultures as your cross-cultural friends.

Note 2: Strong and weak relationships can be distinguished through thinking about the frequency of interaction, the level of trust and intimacy between you and your friends.

Please judge it by yourself. You can think about strong relationship first, and then the rest are your weak relationship friends.

APPENDIX V INTERVIEW QUESTIONS

1, What's your motivation for using Facebook?

2, Please could you describe what you typically do on Facebook when you log on?

3, Could you please talk about some regular, representative or even special interactions between you and your friends on Facebook?

You can follow the structure – what you did? – with whom? – why? – what benefits you got?

Also, would you mind if I stop you and ask some further questions when needed? Thank you!

Maybe I will ask some “why why why” questions, please do not be bothered with that.

Thank you!

4, Could you give some more examples from a wider range of friends?

5, In general, what are the main benefits you think you get from Facebook interactions with friends?

APPENDIX VI SCENARIOS IN STUDY THREE

Scenario 1 Male Version (British-Strong relationships- Benefits of Bonding Social Capital)

On your Facebook friend list, there is a British guy called Phil.

You had to work together on a series of group projects after you were allocated to the same study group. From then on, you went out with Phil quite often. You found there were shared experiences between you. You became very close friends after a number of interactions. You spent a lot of time together; you trusted each other and were willing to tell each other about secrets; you shared emotional things; you helped and supported each other. There is a group of British friends on your Facebook. Their relationships with you are very similar with the one you kept with Phil. They are your close friends.

Using Facebook to interact with this group of people can be beneficial to you. You can broaden your social horizons of world views, or open up opportunities for information and resources. You can also diffuse reciprocity with a wider range of people. For example, you may be interested in something you have never heard before. You are able to received new information about things that have happened in other places. You can see how people different than you live and communicate with friends. You may also feel like you are in contact with a broader range of people.

Scenario 2 Male Version (Chinese-Weak relationships- Benefits of Bridging Social Capital)

On your Facebook friend list, there is a Chinese guy called Xiaoli.

You don't know him too well; however, you have had a short chat with him and got to know a little bit about him. From then on, you have regular chats, but only if you happen to see him on campus, for example. He is not in your close circle of friends. There is a group of Chinese friends on your Facebook. Their relationships with you are very similar with the one you kept with Xiaoli. They are not in your close circle of friends.

Using Facebook to interact with this group of people can be beneficial to you. You can obtain strong emotional, substantive support from them; you can share limited resources with them. You can also arrange and mobilize social life with them. For example, when you share something on Facebook, there is always someone who will give a response to it, which makes you feel you are supported by friends. There is someone who can put their reputation on the line for you. When faced with problems, you can find someone you are comfortable with to talk about intimate personal issues and be able to rely on them to solve the problems.

Scenario 3 Female Version (British-Strong relationships- Benefits of Bonding Social Capital)

On your Facebook friend list, there is a British girl called Joanne.

You had to work together on a series of group projects after you were allocated to the same study group. From then on, you went out with Joanne quite often. You found there were shared experiences between you. You became very close friends after a number of interactions. You spent a lot of time together; you trusted each other and were willing to tell each other about secrets; you shared emotional things; you helped and supported each other. There is a group of British friends on your Facebook. Their relationships with you are very similar with the one you kept with Joanne. They are your close friends.

Using Facebook to interact with this group of people can be beneficial to you. You can broaden your social horizons of world views, or open up opportunities for information and resources. You can also diffuse reciprocity with a wider range of people. For example, you may be interested in something you have never heard before. You are able to received new information about things that have happened in other places. You can see how people different than you live and communicate with friends. You may also feel like you are in contact with a broader range of people.

Scenario 4 Female Version (Chinese-Weak relationships- Benefits of Bridging Social Capital)

On your Facebook friend list, there is a Chinese girl called Xiaoli.

You don't know her too well; however, you have had a short chat with her and got to know a little bit about her. From then on, you have regular chats, but only if you happen to see her on campus, for example. She is not in your close circle of friends. There is a group of Chinese friends on your Facebook. Their relationships with you are very similar with the one you kept with Xiaoli. They are not in your close circle of friends.

Using Facebook to interact with this group of people can be beneficial to you. You can obtain strong emotional, substantive support from them; you can share limited resources with them. You can also arrange and mobilize social life with them. For example, when you share something on Facebook, there is always someone who will give a response to it, which makes you feel you are supported by friends. There is someone who can put their reputation on the line for you. When faced with problems, you can find someone you are comfortable with to talk about intimate personal issues and be able to rely on them to solve the problems.

APPENDIX VII QUESTIONNAIRES IN STUDY THREE

After reading the scenario carefully, please bear these benefits in mind when you rate the following scales to indicate how you would interact with the group of friends. You can judge by yourself whether they can give you such benefits. Please choose the option best describing you.

Comparing to what you would normally do with other Facebook friends, how frequently would you be involved in the following activities with this group of friends on Facebook?

Look at their photos	Never	Rarely	Sometimes	Often	Very Frequently
Look at their conversations	Never	Rarely	Sometimes	Often	Very Frequently
Follow the posts shared by them	Never	Rarely	Sometimes	Often	Very Frequently
Check for updates of their personal information	Never	Rarely	Sometimes	Often	Very Frequently
Look at their activities	Never	Rarely	Sometimes	Often	Very Frequently
Comment on their photos	Never	Rarely	Sometimes	Often	Very Frequently
Leave messages to their walls	Never	Rarely	Sometimes	Often	Very Frequently
Comment on their posts	Never	Rarely	Sometimes	Often	Very Frequently
Privately exchange message with them	Never	Rarely	Sometimes	Often	Very Frequently
Share group information	Never	Rarely	Sometimes	Often	Very Frequently
Involve in their Facebook events	Never	Rarely	Sometimes	Often	Very Frequently
Join their group discussion	Never	Rarely	Sometimes	Often	Very Frequently

Keeping in mind the type of relationship and its potential benefits outlined in the scenario, with this group of friends.....

I would be right there with them in stressful situations on Facebook	Never	Rarely	Sometimes	Often	Very Frequently
I would listen to their talk about their private feelings on Facebook	Never	Rarely	Sometimes	Often	Very Frequently

I would express interest and concern in their well-being on Facebook	Never	Rarely	Sometimes	Often	Very Frequently
I would suggest some action they should take in order to deal with problem they are having on Facebook	Never	Rarely	Sometimes	Often	Very Frequently
I would give them information that made a difficult easier to understand on Facebook	Never	Rarely	Sometimes	Often	Very Frequently
I would help them understand why they didn't do something well on Facebook	Never	Rarely	Sometimes	Often	Very Frequently
I would keep up what's going on in their lives on Facebook	Never	Rarely	Sometimes	Often	Very Frequently

Keeping in mind the type of relationship and its potential benefits outlined in the scenario, with this group of friends....

I do not often talk about myself on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I usually talk about myself for fairly long periods at a time on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My conversation lasts the least time when I am discussing myself on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I often talk about myself on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I often discuss my feelings about myself on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Only infrequently do I express my personal beliefs and opinions on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
From our conversation on Facebook it would be easy to find out my preferences	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Part 3: Your Basic Information

Your age _____

Your gender: Male Female

Your education: Undergraduate Masters PhD

How long have you had a Facebook account? _____

Approximately how many friends have you got on Facebook? _____

On average, how many hours do you spend on Facebook per day? _____

Your e-mail _____

APPENDIX VIII STUDY ONE IN INTERACT CONFERENCE 09

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Abstract. Online self-presentation, defined as the way people present themselves through profiles, blogs, photo albums, etc., forms the basis of much of the interpersonal relationship building taking place in social networking platforms such as Windows Live Space. However, little is known about how people make sense of this information, particularly if presenter and audience do not have a common cultural background. This study investigated the effectiveness of cross-cultural online communication by measuring the cross-cultural social perception of specially constructed online representations of a typical British and a typical Chinese person. The representations were based on a 7-dimensional characterization of cultural differences derived from a review of the literature. The findings suggested that cultural characterization embedded in online communication affects the social perception of others, that it can trigger stereotypes, and that it has consequences for establishing relationships. Implications for the design of social networking platforms are discussed.

Keywords: Cross-cultural communication, Online Self-presentation.

1 Introduction

Social networking platforms (e.g., Windows Live Spaces, Facebook) provide an opportunity for users to present themselves online and connect with each other [5]. These media have the potential, therefore, to substantially increase the amount of communication between people who do not share a cultural background. However, it is questionable whether much of this cross-cultural communication is effective in establishing relationships between people with different cultural backgrounds. Indeed, cross-cultural relationships are “*onerous to initiate, develop and maintain resulting from the interplay of a wide range of variables such as values, interest, personality traits, network patterns, communication styles, cultural knowledge, and relational and intercultural communication competence, intergroup attitudes, and so forth*” [2].

Our cultural background serves to help us interpret our own behaviour and that of others. Thus, culture determines in large part how we present ourselves to the outside world, and how we perceive others. Self-presentation is subject to different levels of intentional control. Verbal communication can be more closely controlled, we can decide what to disclose and how, whereas non-verbal communication (e.g., physical appearance, gestures, tone of voice, and other behaviour) may escape conscious control. The way we are perceived by others will depend on the cues that they pick up from our verbal and non-verbal behaviour [7].

Online self-presentation is different from real life self-presentation. In online social networking sites, initial impressions of others are almost always based upon information they provide in their profiles, blogs and other forms of communication. These do not contain many of the non-verbal cues that are characteristic of offline communication. They are also substantially less spontaneous [11] [17], more static, and less immediately responsive to feedback. Evidence suggests that people adapt their style of self-presentation in offline communication according to the type of audience they are addressing [23]. The extent to which this can be achieved in online communication is often severely limited by the lack of affordances towards that end offered by online

networking platforms. As a result, online self-presentation tends to emphasize a number of small cues based upon expectations of how audiences will react to these [4].

It appears therefore that the success of online communication for relationship building depends on the ability to anticipate the effects self-presentation has on others [15]. However, it seems likely that the perception of online self-presentation is substantially affected by the cultural background of the audience. In cross-cultural communication, therefore, it is unavoidable that presenters' anticipation of the effects of self-presentation is often inaccurate, as it is based on a cultural point of view that can be substantially different from that of the perceiver. In order to determine how cultural differences affects social networking, we have to investigate how cultural variation in self-presentation strategies affects the way people are perceived by others, and how these perceptions might affect cross-cultural encounters in online contexts.

2 Background

An important psychological framework, particularly relevant to the aim of this research, relates cultural differences in perception, emotion and motivation to specific forms of self-construal. The self-concept is a socio-cognitive construct used to denote all the knowledge people have about their self [1]. The self represents the most important set of cognitive representations available to a person, acting as an information processor, and mediating perception of the world. It filters, interprets and evaluates all the incoming stimuli in terms of their contribution to the individual's well-being.

Individuals of different cultures have different conceptions of the self, modulated on a continuum which varies according to the relationship between the self and others [18]. The interdependent self is grounded in one's connection with relevant others, whereas the independent self is grounded in autonomy, stability and uniqueness. Other people are still important to the independent self, but mainly for social comparison, remaining external to the self. In Eastern cultures (e.g., China) people tend to have a more interdependent self, whereas in Western cultures (e.g., Britain and the United States) people tend to have a more independent self. This theoretical distinction between independent and interdependent self, is explicit in several other cultural conceptualizations, including Hofstede's [9] cultural value dimension of collectivism versus individualism. This dialectic conception of self has important implications for the way people present themselves to others and how they communicate [24]. In particular, people with an interdependent self tend to describe themselves through roles and relationships (e.g., Father of X; Daughter of Y). They use an indirect communication style, and prefer to express self-criticism in order to maintain harmony. By contrast, people with an independent self express themselves through their inner thoughts and feelings [13]. These people use a direct communication style as they are driven by the realization of personal goals and the manifestation of individual capabilities.

Another way of framing the influence of the speaker's cultural background on communication style is by distinguishing between low-context and high-context communication cultures [8]. At the basis of this framework is the observation that the meaning of verbal communication often interacts with the context in which it occurs. In some societies, the cultural context in which most interpersonal interaction takes place is

very strong due to their homogeneous make-up and long standing cultural traditions. In these societies, which include most Eastern societies, people can rely much more on a shared cultural context, and need not use explicit communication to make themselves understood. Other societies, in contrast, have a much more heterogeneous make-up and shorter cultural traditions. People in these societies, which include most Western societies, need to make their communication very explicit in order to be understood by others. Differences in the perception of oneself may also have consequences for the way one perceives others. It is suggested that individuals with an interdependent self are more advertent to the needs of other people in order to maintain harmonious relationships, whereas individuals with an independent self care less about others' details due to their focus on themselves [14]. This suggests that the cultural background of the perceiver will determine what information they take into account when judging other people's self-presentations. A study amongst Korean people found that individuals with a more independent self preferred positive presentation styles to negative ones, whereas preferences of individuals with a more interdependent self were the other way around [10].

In summary, the literature on cultural differences suggests that culture affects the way people present themselves to others, the communication styles they use, and how they perceive other people. The study presented in this paper aims to investigate whether cultural differences in people's online self-presentation affect the way in which they are perceived and how this relates to the cultural background of the perceiver. Based on the background literature we developed two hypotheses about online communication:

H1: Differences in communication style and self-presentation in verbal communication will affect people's social perceptions.

H2: People from different cultures will base their opinions of others on different aspects of their self-presentation and communication style.

In order to test these hypotheses, people's social perception of pieces of online communication typical of British people and Chinese people were measured. This was achieved by independently manipulating the blog style and physical appearance embedded in a personal virtual space modelled on Windows Live Spaces. These manipulations created four different virtual spaces: Two in which the appearance matched the cultural style of the blog (congruent), and two in which the appearance did not match the cultural style of the blog (incongruent). These combinations lead to a third hypothesis:

H3: Congruent Combinations of appearance and blog style will be perceived as more socially desirable than incongruent combinations.

3 Related Work

Most of the work related to cultural differences in online communication has concentrated on cultural differences in presentation on Web sites and personal virtual spaces. An inventory of self-presentation on MSN Spaces (the forerunner of Windows Live Spaces) owned by either British or Chinese students studying at British Universities revealed strong cultural differences in line with the distinction between interdependent and independent self [3]. For example, spaces owned by Chinese students conformed

more closely to a design standard, featured more extensive friend lists, and contained more pictures. Chinese students were also more accommodating, and more inclined to host filter blogs (blogs composed of filtered feeds from other people's blogs).

Other work has focused on the cues receivers of online communication use to form impressions of the people who produced the communication. As mentioned in the introduction, there may be several strategies for dealing with a lack of cues for social perception in online communication, one of which is a tendency of "*Internet users develop impressions of others, even with the limited cues available online, by adapting to the remaining cues in order to make decisions about others. Online users look to small cues in order to develop impression of others, such as a poster's email address, the links on a person's homepage, even the timing of email messages.*" [4]. These small cues may lead to the activation of stereotypes in an attempt to fill the gaps and create impressions of others that cover many more aspects of their personality than there is evidence for [6]. Of the cues that are available in online communication, a person's appearance is one that could easily trigger this application of stereotypes [16].

4 Method

4.1 Participants

A total of 80 students participated in the study as volunteers. Half of them were born in the UK and half of them were originally from China but studying in UK. The data obtained from two of the British-born participants were later excluded from the analyses because they indicated that their ethnicity was Chinese. The average age of the British participants was 24.18 (sd=5.60), and that of the Chinese participants was 23.93 (sd=3.75). Facebook (<http://www.facebook.com>) was used as the main social networking platform by 100% of the British participants, but only by 25% of the Chinese participants. The other 75% of the Chinese participants reported using mainly Windows Live Spaces (<http://home.spaces.live.com>). The gender composition of each group was exactly 50/50.

4.2 Apparatus

The manipulation of communication style was based on the seven dimensions of cultural differences between Western and Eastern societies described in Table 1, which were used to create two blogs. Each blog contained three diary entries reporting different aspects of student life. A British student and a Chinese student wrote the diaries together in English. They were given three hypothetical events, and discussed how they would deal with those events, focusing on their attitudes and behaviours. The first theme was about a supervisor who criticized a student's work. The British student complained about the supervisor by saying "*I was miffed because she did not agree with the research topic*", whereas the Chinese student showed respect for the supervisor by saying "*I appreciate his encouragement and supervision, I need to make every effort to please my supervisor*" (e.g., large vs. small power distance [9]). The theme of the second diary entry was the student's birthday. The British student's focus was on herself, "*I usually detest birthdays, because they mean I'm getting on ... But who's to care? So I went out for lunch to*

celebrate and had a makeover ...”, whereas the Chinese student’s focus was on her friends and diverting attention away from herself, “*All of a sudden Bill, Catherine, Alex turned up at my house shouting “come and get your present”... I was dumbstruck and forgot to invite them into my house. My house is too small and not very clean*” (e.g., individualism vs. collectivism [9]). The theme of the third diary entry was about students working together on a group-work assignment. An attempt was made to make all of the cultural dimensions explicit in the differences between the diaries. Inevitably, this may have introduced other differences, such as language, but this was kept to a minimum by rigorous checks for grammatical correctness. Idiosyncratic expressions were avoided as much as possible without making the diaries sound stifled.

Table 1. Seven Dimensions of Cultural Differences between Eastern and Western Societies.

Eastern Culture	Western Culture	Reference
Interdependent	Independent	[9], [18]
Indirect	Direct	[8], [18]
Reserved	Open	[8], [18]
Implicit	Explicit	[8]
Relationship-oriented	Task-oriented	[8], [9], [18]
Hierarchical	Social Equal	[9]
Long-term orientation	Short-term orientation	[9]

The manipulation of the appearance of the presenter was realized by the creation of two profiles: One containing a photo of a typical Caucasian face and typically British name (Emily Sutton), the other containing a photo of a typical Asian face and a typical Chinese name (Song Yang). The photos were selected from Rhodes *et al.* [22] on the basis that they were typical for their particular ethnic group and judged to be equally attractive. The profiles and blogs were styled on the format used by Windows Live Spaces. Combining the blogs and profiles created four personae: two with a congruent combination of blogs and profiles (e.g., Chinese style blog with Chinese appearance), and two with an incongruent combination of blogs and profiles (e.g., British style blog with Chinese appearance)³.

4.3 Instruments

The perception of personae was measured in terms of the seven cultural dimensions of Table 1, the Interpersonal Attraction Scale [20] and the Source Credibility Scale [19]. Ratings on the cultural dimensions were obtained through five-point semantic differential scales between two bipolar adjectives with opposite meanings at each side (e.g., between ‘direct’ and ‘indirect’). The Source Credibility Scale was designed to measure the extent to which a person was deemed to possess Competence (e.g., “unintelligent-intelligent”), ‘Caring/Goodwill’ (e.g., “self-centred-not self-centred”), and ‘Trustworthiness’ (e.g., “unethical-ethical”). Each subscale had six items which were also rated on five-point semantic differential scales. The Interpersonal Attraction scale was designed to measure a

³ The examples of a congruent persona with a Chinese style blog and a Chinese appearance and a incongruent persona with a British style blog and a Chinese appearance are available in the following URLs: <http://hiyahiyahiya1983.spaces.live.com/>, <http://goodbyemylover4ever.spaces.live.com/>

person's perceived Physical Attractiveness (e.g., "I think she is quite pretty"), Social Attractiveness (e.g., "I would like to have a friendly chat with her"), and Task Attractiveness (e.g., "you could count on her to get the job done"). Each subscale had six items which were rated on a 5-point Likert-type rating scale (1=strongly disagree, 5=strongly agree).

4.4 Procedure

Each participant was given one of the combinations of blogs and profile, and given 20 minutes to read the content of the blog and look at the profile. Immediately afterwards they were asked to fill out a questionnaire which included questions about their age, country of origin and online social networking habits, rating scales for the seven cultural dimensions, the Interpersonal Attraction Scale and Source Credibility Scale. A semi-structured interview was then conducted to further assess participants' perception of the persona (e.g. "where do you think the persona is originally from?") and their general experiences in on-line social networking. The total time spent by each participant was approximately 40 minutes.

5 Results

Multivariate Analysis of Variance (MANOVA) was used to test the effects of the independent variables on perceptions of the personae along the cultural dimensions. Univariate Analysis of Variance (ANOVA) was used to evaluate the effect of the independent variables on the scores on the subscales of the Interpersonal Attraction Scale and Source Credibility Scale. Scores on all of the subscales were calculated by adding the ratings on the six items making up each of the scales, as recommended by the original authors. As a result, the scores ranged from 6 (ratings of 1 on all six items) to 30 (ratings of 5 on all six items). Partial eta squared statistics (partial η^2) were used as estimates of effect size. Partial η^2 was computed considering the variance attributable to the effect of interest plus error [21]. As a general guideline, $\eta^2 = .01$ is considered small, $\eta^2 = .06$ medium, and $\eta^2 = .14$ large. Post-hoc tests for investigating significant interaction effects were done using Tukey HSD which controls the experiment-wise type I error [12]. Pearson's correlation coefficient was used to calculate the relationships between subscales and those between cultural dimensions and sub-scales.

5.1 Experimental Manipulation Check

The internal consistency of the seven cultural dimensions was measured as $\alpha = 0.76$ and all corrected-item correlation were larger than 0.38. It appears, therefore, that there is an underlying construct being measured by these dimensions. Multivariate analysis of participants' ratings on the cultural dimensions revealed a significant effect of Blog Style ($F(7,64) = 24.00, p < .001$, partial $\eta^2 = .72$) (Fig. 1). No other effects were significant. British blogs scored higher on all seven cultural dimensions (all $ps < .001$). Hence we can conclude that participants were able to distinguish between the blogs based on stereotypical cultural characteristics of their communication style. The other experimental

manipulation involved the physical appearance, in which the independent variables on ratings of physical attractiveness of the personae were tested. No significant effects were found which ensured that physical attraction did not have to be considered in the interpretation of the effects on other variables found in this experiment.

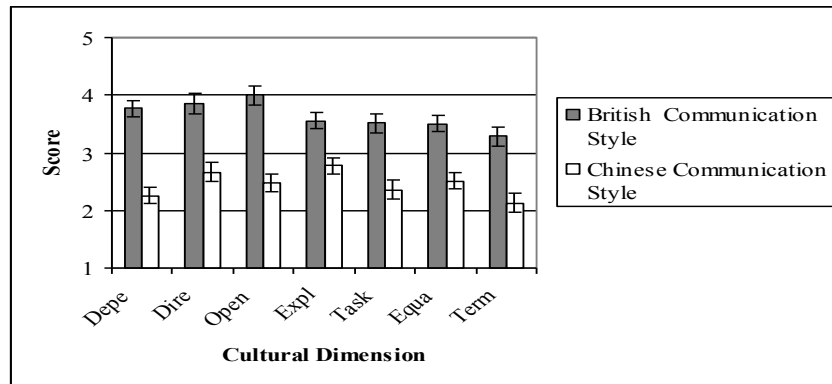


Fig. 1. Means ratings of the cultural dimensions for personae with British and Chinese communication styles. (Error bars show the standard error)

Overall it was important to see if there was agreement amongst participants when attributing an origin to the persona they were asked to judge, and particularly how appearance and blog style affected this attribution. Table 2 shows the results. It can be seen that almost all participants thought that the congruent personae with British and Chinese appearances had their origins in the UK/Europe and China/Asia respectively. However, their opinions about the origins of the incongruent personae were more diverse. In particular, the persona with British blog style and Chinese appearance was regarded by most Chinese participants and some British participants as a British Born Chinese (BBC) or a person from Hong Kong. In this case, appearance was more important than blog style in judging a person’s origin for most British participants, while most Chinese participants took both appearance and blog style into account. This may be due to a lack of knowledge in the differences that exist between Chinese people, from different parts of China, from the British participants.

Table 2. Judgments about the Origins of the Personae. (* BBC and people from Hong Kong were clustered together because they have a Chinese appearance but reflect behaviour that is more typical of British culture)

Blog/Appearance Combination	Participant’s Origin	Attributed Origin			
		UK/Europe	China/Asia	BBC/Hong Kong	Other
Congruent (British blog style; British appearance)	British	10			
	Chinese	10			
Incongruent (British blog style; Chinese appearance)	British		5	4	
	Chinese	1	2	7	
Congruent (Chinese blog style; Chinese appearance)	British		9		1
	Chinese		10		
Incongruent (Chinese blog style; British appearance)	British	7			2
	Chinese	8	1		1

5.2 Test of Hypotheses

Overall, participants' answers exhibited high reliability. The Cronbach alpha reliability for the Interpersonal Attraction Scales was calculated as 0.85 for Social Attraction, 0.80 for Physical Attraction and 0.80 for Task Attraction. The Cronbach alpha reliability for the Source Credibility scales was calculated as 0.71 for Competence, 0.73 for Caring/Goodwill, and 0.76 for Trustworthiness.

5.2.1 Social Attraction

There was a significant main effect of Blog Style on participants' judgment of Social Attraction ($F(1,70)=4.27, p<.05$, partial $\eta^2=.05$). There was also a significant two-way interaction between Nationality and Blog Style ($F(1,70)=11.35, p<.01$, partial $\eta^2=.14$)(Fig. 2). Post-hoc analysis revealed that the British blog style was judged more socially attractive by British than by Chinese participants. In addition, Chinese participants who judged personae with a British blog style gave lower ratings than those who judged personae with a Chinese style ($ps<.01$). No such difference was found between groups of British participants. The judgment of Chinese participants appeared to be affected by blog style, but not the judgment of British participant

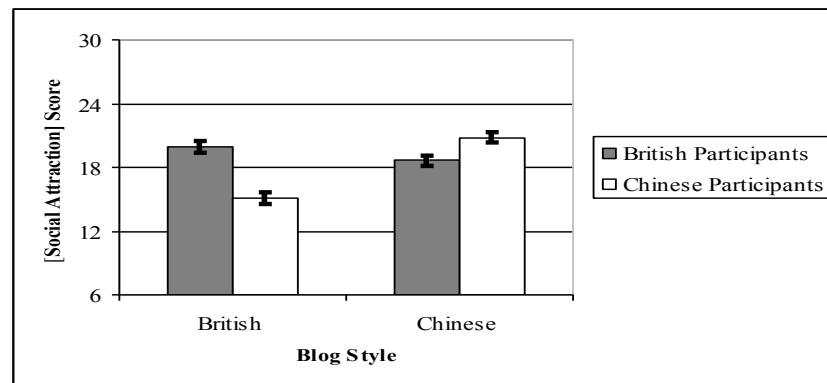


Fig. 2. The two-way interaction between Nationality and Blog Style on the perception of “Social Attraction”. (Error bars show the standard error)

5.2.2 Task Attraction

There was a significant effect of Blog Style on participants' judgments of “Task Attraction” ($F(1,70)=5.26, p<.05$, partial $\eta^2=.07$). There was also a significant two-way interaction effect between Blog Style and Appearance ($F(1,70)=4.53, p<.05$, partial $\eta^2=.06$)(Fig. 3). Post-hoc analysis revealed that the incongruent persona with a Chinese appearance and British blog style received higher scores on this scale than the congruent persona with a Chinese appearance and Chinese blog style ($p<.05$). No difference was found in the scores received by the personae with a British appearance.

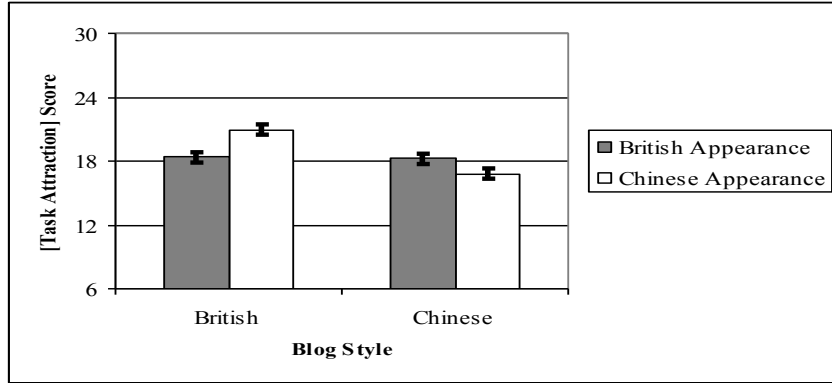


Fig. 3. The two-way interaction effect of Blog Style and Appearance on the perception of the “Task Attraction”. (Error bars show the standard error)

5.2.3 Competence

There was a significant effect of Blog Style on participants’ judgments of “Competence” ($F(1,70)=32.03$, $p<.01$, partial $\eta^2=.31$). There was also a significant three-way interaction among Nationality, Blog Style and Appearance ($F(1,70)=4.01$, $p<.05$, partial $\eta^2=.05$)(Fig. 4). Post-hoc analysis revealed that the congruent persona with a British blog style and British appearance received higher scores than the incongruent persona with a British blog style but Chinese appearance when rated by British participants ($p<.01$). The congruent persona with Chinese blog style and Chinese appearance received lower scores than the incongruent persona with British blog style and Chinese appearance when rated by Chinese participants ($p<.05$). This suggests that British participants based their perception of competence on both appearance and communication style of online persona, whereas verbal cues had a bigger impact on the ratings of Chinese participants.

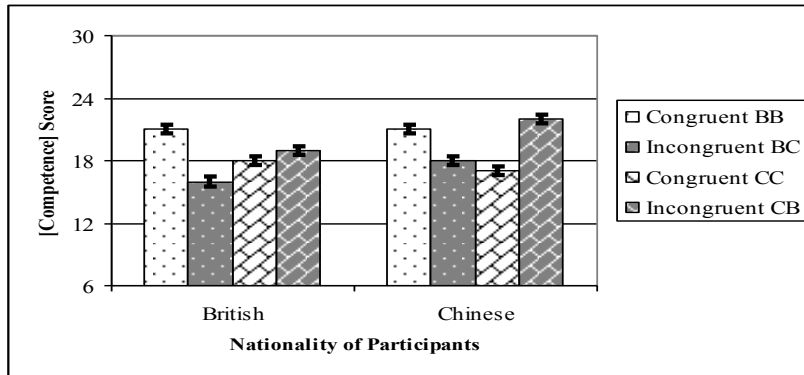


Fig. 4. The three-way interaction effect on the perception of the “Competence” of the personae. (Error bars show the standard error)

5.2.4 Caring/Goodwill

There was a significant effect of Blog Style on participants’ judgment of “Caring/Goodwill” ($F(1,70)=23.89$, $p<.01$, partial $\eta^2=.25$). There was a significant two-way interaction between Nationality and Blog Style ($F(1,70)=5.10$, $p<.05$, partial $\eta^2=.06$)(Fig. 5). Post-hoc Analysis revealed that the goodwill of personae with a Chinese presentation style was judged to be higher than that of personae with a British presentation style by Chinese participants ($ps<.01$), but no such difference was found for British participants. Again the judgments of Chinese participants appeared to be affected by the blog style, but not those of British participants.

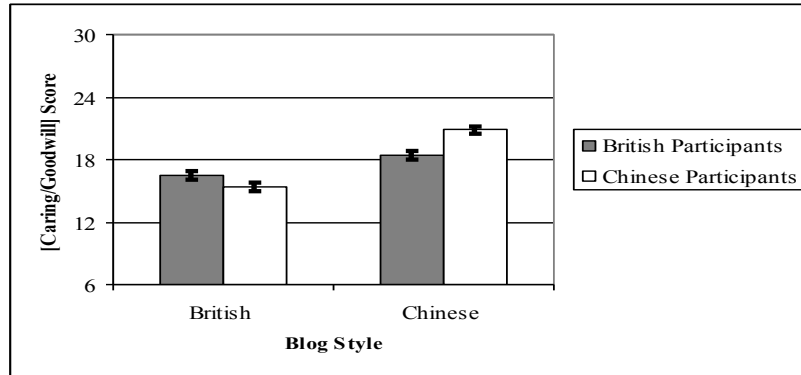


Fig. 5. The two-way interaction effect on the perception of the “Caring/Goodwill” of the personae. (Error bars show the standard error)

5.2.5 Trustworthiness

There was a significant three-way interaction among Nationality, Blog Style and Appearance ($F(1,70)=5.58, p<.05, \text{partial } \eta^2=.07$)(Fig. 6). Although post-hoc analysis revealed no significant pair-wise differences, there was a trend that congruent personae were rated as more trustworthy than incongruent personae when judged by British participants, whereas a slight opposite trend was observed for Chinese participants.

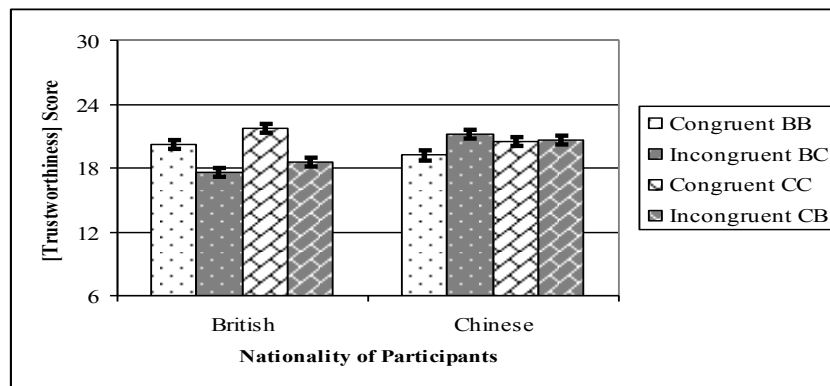


Fig. 6. The three-way interaction effect on the perception of the “Trustworthiness” of the personae. (Error bars show the standard error)

5.3 Correlations

Correlations were calculated between ratings on the Interpersonal Attraction scales and Source Credibility scales for both British and Chinese participants separately. For British participants there were no significant relationships ($ps>.05$) Chinese participants tended to see more competent personae as less socially attractive ($r=-.49, p<.01$), and preferred making friendships with more caring personae ($r=.54, p<.01$). Remarkably, however, physical attraction was somewhat related to task attraction for Chinese participants ($r=.34, p<.05$).

Table 3 shows the correlations between ratings of the personae on the seven cultural dimensions and ratings on the Interpersonal Attraction and Source Credibility Scales. From this table it is clear that Chinese participants perceived personae with the British style of communication to be more competent, but also less caring based on all cultural

dimensions. Chinese participants also base their judgments of social attractiveness on the interdependence, hierarchy, and relationship and long-term orientation of the blog style. All of these appear more in Chinese style blogs. British participants tended to associate an independent blog style with more competence, an explicit communication style with more socially attractive, as well as associated blog styles that were more direct, and more focused on social equality and short-term relations with higher task attractiveness. All of these appear more in British style blogs.

Table 3. Significant Correlations between 7-Cultural Dimensions and Scales among British and Chinese participants. (**=significant at the 0.01 level; *=significant at the 0.05 level)

Cultural Dimension	Nationality	Scale	r	
Interdependent vs. Independent	British	Competence	.48**	
	Chinese	Social Attraction	-.68**	
		Competence	.52**	
		Caring/Goodwill	-.68**	
Indirect vs. Direct	British	Task Attraction	.34*	
	Chinese	Competence	.35*	
		Caring/Goodwill	-.52**	
Reserved vs. Open	British			
	Chinese	Competence	.49**	
Implicit vs. Explicit		Caring/Goodwill	-.48**	
	British	Social Attraction	.34*	
	Chinese	Competence	.40**	
		Caring/Goodwill	-.44**	
Relationship-oriented vs. Task-oriented	British			
	Chinese	Social Attraction	-.43**	
		Competence	.56**	
		Caring/Goodwill	-.50**	
Hierarchical vs. Social Equal	British	Task Attraction	.33*	
	Chinese	Social Attraction	-.36*	
		Competence	.56**	
		Caring/Goodwill	-.36*	
	Long-term vs. Short-term Relations	British	Task Attraction	.50**
		Chinese	Social Attraction	-.39*
Task Attraction			.38*	
Competence			.44**	
		Caring/Goodwill	-.39*	

6 Discussion

The nature of the interaction between variation in blog style of presenters and cultural background of audiences was clearly illuminated by this study. In particular, most of the cultural characteristics of the Chinese blog style were deemed by Chinese participants to contribute to creating more socially attractive and caring personae. This is consistent with the first hypothesis, stating that differences in communication style and self-presentation in verbal communication will affect people's social perceptions. Moreover, Chinese participants expressed a preference for interacting with people from their own-social group. It also indicated that the desirability of initiating online relationship can be varied between people from different cultures and that it is based on different aspects of self-presentation and communication style (H2).

There was also a clear interaction between the blog style of personae and their appearance on social perception of the participants, and on perceptions of task attractiveness in particular. Surprisingly, incongruent personae tended to be judged as more attractive to work with than congruent personae. This could be explained by taking

into consideration the origins attributed to these personae. In particular, incongruent persona with Chinese appearance and British blog style were deemed to be British-born Chinese or from Hong Kong. Participants may have applied cultural stereotypes of these people that suggest they are high achievers which would make them more attractive to work with. For example, participants may have used their knowledge of the fact that British born children with Chinese ethnicity tend to achieve very high standards in education (e.g., they have the highest percentage of pupils achieving 5 good GCSEs, which are exams taken at age 16) compared to children from other ethnic groups including White British [25].

7 Conclusions

The results of this study provided support for the first two hypotheses, but no unequivocal support for the third hypothesis was found. This suggests that cultural differences embedded in online communication can dramatically impact the impressions it creates in people, and that these impressions depend on their cultural background. Indeed, people from different cultural backgrounds rely on different cues when forming impressions of others. British people may pay less attention to verbal cues than Chinese people, who tend to focus more on the detailed content of communication. The emphasis on individualism apparent in Western cultures may make them more suspicious of inconsistencies between appearance and content, whereas people from Eastern cultures may be prone to explain such anomalies away by evaluating individuals in relation to in-group and out-groups. This result is consistent with Hall's [8] high and low context theory. Effective communication in high context cultures requires a high degree of common ground between presenters and receivers. Furthermore, cross-cultural experience may play an important role in the findings. Historically the UK has a vast multi-cultural experience, which may affect British participants' responses. Similarly, the Chinese participants may be influenced by British culture, as they have relocated to the UK. Alternative explanations cannot be ruled-out, however, such as the increasing importance of political correctness in cross-cultural encounters typical of British society.

The results may have a number of implications for the design of social networking platforms. Social networking platforms may need to be designed to satisfy cultural differences, due to what we have shown to be important variances in preferences and presentation amongst users. In addition, people should be made aware of the different ways in which their self-presentation can be interpreted differently by people with different cultural backgrounds. Such awareness may increase the effectiveness of cross-cultural online relationship building. While this study only focuses on the role of cultural differences on influencing the initialization of cross-cultural online relationship, it would also be valuable to analyze their effects in maintaining and developing offline to online relationships.

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APPENDIX IX CONSENT FORM

Faculty of Humanities
Consent Form for Interviewees Taking Part in Student Research Projects

Title of Project: Social Capital in Cross-cultural Social Networking

Name of Researcher BLOCK LETTERS.....YIFAN JIANG.....
School:.....MANCHESTER BUSINESS SCHOOL.....

Participant (volunteer)

Please read this and if you are happy to proceed, sign below.

The researcher has given me my own copy of the information sheet which I have read and understood. The information sheet explains the nature of the research and what I would be asked to do as a participant. I understand that the research is for a student project and that the confidentiality of the information I provide will be safeguarded unless subject to any legal requirements. He has discussed the contents of the information sheet with me and given me the opportunity to ask questions about it.

I agree to take part as a participant in this research and I understand that I am free to withdraw at any time without giving any reason, and without detriment to myself.

Signed:.....

Date:.....

Family Name BLOCK LETTERS:.....

Other Name(s) BLOCK LETTERS:.....

If the participant is under 18 or a vulnerable adult a parent/guardian or other responsible adult must also sign the form:

Signed:.....

Family Name BLOCK LETTERS.....

Other Name(s) BLOCK LETTERS.....

Relationship to Participant BLOCK LETTERS.....

Date:.....

Researcher

I, the researcher, confirm that I have discussed with the participant the contents of the information sheet.

Signed:.....

Date:.....