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# **Socializing Online in Various Cultural Contexts: A Cross Nation Study of Social Network Service Development**

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## **ABSTRACT**

The boom of WWW-based social network service (SNS) warrants more studies and better understandings in many aspects, especially when such hedonic application has evolved differently in different countries. The development of SNS in the US, China and South Korea have been particularly interesting. Whereas U.S. SNS websites enjoy the first mover advantage, their followers in different cultural settings are trying to re-create the prosperity in their own domains. An analysis of the challenges and potentials of SNS in these countries is presented, along with a discussion of SNS research across different cultural settings. It is believed that in addition to marketing factors, socio-economic structure and cultural influences also play a critical role in promoting SNS website.

Keywords: Social Network, Social Network Service, Online Socializing, Human Computer Interaction, Cross Culture, China, South Korean, United States

## **BACKGROUND**

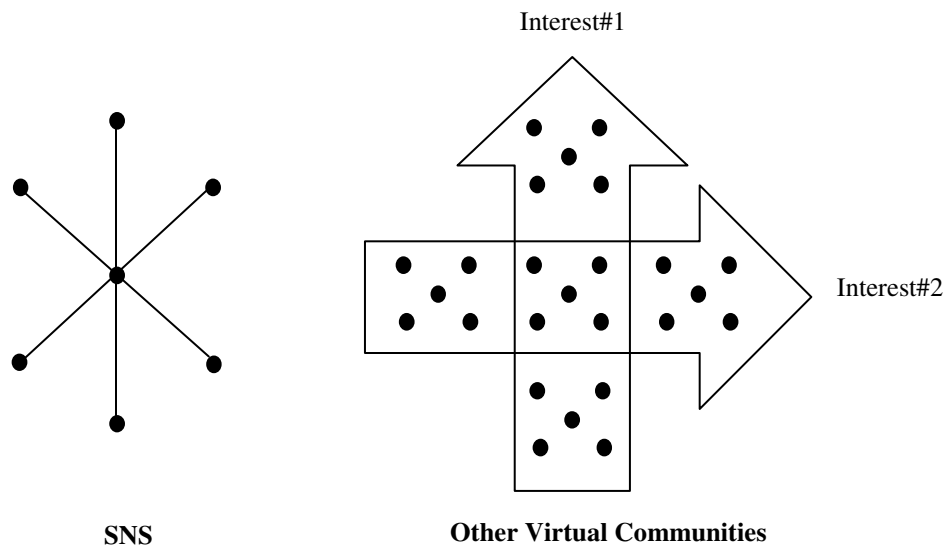
For Information and Communication Technology (ICT) driven organizations, network effects permeate the structure in a variety of ways such as email, discussion boards, and social network portals (Dhar and Sundararajan, 2007). An outstanding strength of an ICT system, as argued by Parker and Van Alstyne (2005), is its capability of matching, networking, or filtering various kinds of information content. Such strength allows the sustainable success of archetype online companies including eBay. Today, under the influence of Web 2.0 development, ICT's matching capability has been enhanced and extended to a new domain where not only products but also human beings can be closely and transparently associated with each other. Dhar and Sundararajan (2007) further contend that as social networks grow, products that derive their value from socially constructed environments would become more valuable. For instance, as the peer to peer (P2P) network improves in quality, popularity, and speed, their importance and scope are increasing (Asvasund et al., 2004).

## **INTRODUCTION**

Social Network Service (SNS) refers to the relationship building and maintaining service that establishes web-based inter-personal networks through a bevy of software and networking applications, whose main focus is to manage and aggregate knowledge and information that is relation oriented. In some discussion contexts, SNS can be considered as the "new applications and services that facilitate collective action and social interaction online with rich exchange of multimedia information and evolution of aggregate knowledge" (Parameswaran and Whinston, 2007).

A better understanding of the SNS concept can be obtained by observing its unique features when compared with other types of virtual communities such as wikis and weblogs, as shown in Figure 1. First, SNS focuses on nurturing new inter-personal relationships and maintaining current social networks on a digital platform. Doing so requires various computing services to facilitate, manage and enrich the social networking activities so as to be free from the restrictions of time difference and geographical dispersion. Second, unlike Internet services such as YouTube, which offers an information sharing mechanism mainly

designed for video broadcasting for appeal, SNS develops multiple content distribution functions, including video broadcasting, to support the core business -- bonding social ties through the Internet. Third, SNS allows for a fairly high level of openness for external software developers. Third party programmers are able to obtain descriptions of an Application Programming Interfaces (API) so that add-on applications can be used in SNS structures. Other virtual communities do not have such a level of freedom. Although in YouTube users are free to upload and share their user created content (UCC), the software infrastructure itself is still closed rather than open.



**Figure 1. SNS vs. Other Virtual Communities in Network Construction**

Signified by a series of record breaking acquisitions in the global ICT industry (e.g. News Corporation bought MySpace; UK based company ITV purchased Friends Reunited), SNS has drawn a high level of attention from the business sectors as well as the general public. In fact, during the early stage of Internet development, Web 1.0, social networking websites made regular debuts. For instance, drawing upon the six degrees of separation theory, sixdegrees.com was released in 1997 and focused on developing indirect inter--personal relationship, that is, a means to know new people. The 5460.net, a China based website for school alumni, was established in 1998 to tie former class mates and organize cross school activities. Many other similar web services emerged, but few survived. Sixdegree.com founder claimed that the website failed because it was “simply ahead of its time” (Boyd and Ellison, 2007). In fact, most of the features provided by Sixdegree.com became essential ingredients for the later immense success of MySpace, which encourages members to elaborate their profiles through which they can create and share personal information to socialize online.

Another important SNS phenomenon is that profit seeking organizations including Procter & Gamble and Visa International are utilizing online social resources to acquire business benefits. Public relation management (PRM) and customer relation management (CRM) in business corporations have found a new channel to extend their respective influences. On the other hand, the demand for online community developing products has followed the rapid SNS expansion. A large number of new development tool kits including OneSite and AlstraSoft E-Friends that support online interactive actions and social activities have grown rapidly in the market.

### **PROLIFERATION ENVIRONMENT FOR SNS**

The infrastructural nature of Internet technology has determined various paces we witness in global development of WWW applications. Being the inventor and ‘true’ owner of the Internet, U.S. has reaped enormous benefits in e-commerce, data communications, and online socialization. Although China, as a late follower, does not own such advantage, China has become a critical momentum of Internet service due

to 1) fast developing economy and wealth; 2) huge potential Internet adopters. South Korea is a global leading country in telecommunications and digital service creation. With the cutting edge technological backbone, innovative applications have been introduced constantly.

A recent study conducted by the China Internet Network Information Center (CNNIC), an administrative agency responsible for Internet affairs in China, indicated that as of May 2008, more than 250 million Chinese residents (excluding Hong Kong and Macau, with penetration about 10%) have subscribed to an Internet service. Over 100 million have adopted various types of broadband service (xDSL, Cable Modem, Fiber2LAN) (eMarketer Daily, 2007). The US remains the second largest population of Internet users in the world with 248 million people going online. South Korea has the highest Internet penetration, with more than 34.8 million Internet users (68% adoption rate) versus a total population of 48 million (Internet World Statistics, 2008). In Table 1, which presents a more comprehensive illustration of Internet usage, also includes mobile phone users as they are becoming an integral part of overall SNS platform.

Country	Population	Internet Users	Internet Penetration	Broadband Users	Broadband Penetration	Mobile Phone Users	Mobile Phone Penetration
U.S.	303 Million	248 Million	81.8%	66 Million	21.9%	156 Million	82.1%
China	1.4 Billion	250 Million	17.8%	48.5 Million	3.7%	592 Million	42.2%
South Korea	51 Million	34.8 Million	68.2%	14 Million	37.4%	45.9 Million	90.4%

Source: Internet Usage World Statistics, 2008.

**Table 1. Proliferation Environment of SNS**

As shown in the table, despite having the largest population in Internet, broadband and cell phone use, China is falling behind in all three categories of penetration rate. Although some argue this is a sign of significant potential for SNS growth and prosperity, it is, however, contingent upon several factors that concern practitioners and researchers.

### ROLE OF CULTURE

Hofstede (1980) defines the culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede, 1980, p. 260). In the information technology context, culture is often cited to essential factor which leads to successful implementation of information systems if properly corresponded (Galliers, Madon, and Rashild, 1998; Leidner and Kayworth, 2006). For instance, Straub (1994) has found that Japanese workers prefer facsimile to email because of complexity of typing Japanese characters with keyboard.

Hofstede (1984, 2001) identifies the four central dimensions which make a country distinct from other countries and demonstrates the culture of a country as scores of the four dimensions. Cultural dimensions on national level and specific scores of the three countries in four dimensions are described in the tables.

Dimension	Description
Power Distance	Cultural dimension related to the different solutions to the basic problem of human inequality
Individualism vs. Collectivism	Cultural dimension related to the integration of individuals into primary groups
Masculinity vs. Femininity	Cultural dimension related to the division of emotional roles between women and men
Uncertainty Avoidance	Cultural dimension related to the level of stress in a society in the face of an unknown future
Long Term vs. Short Term Orientation	Cultural dimension related to the choice of focus for people's efforts: the future or the present and past

Source: Hofstede, G.H. (2001). *Culture's Consequences: comparing values, behaviors, institutions, and organizations across nations*, Thousand Oaks, CA: SAGE Publications.

**Table 2. Cultural dimension on national level**

Country	PDI	IDV	MAS	UAI	LTO
South Korea	60	18	39	85	75
United States	40	91	62	46	29
China	80	20	60	38	118

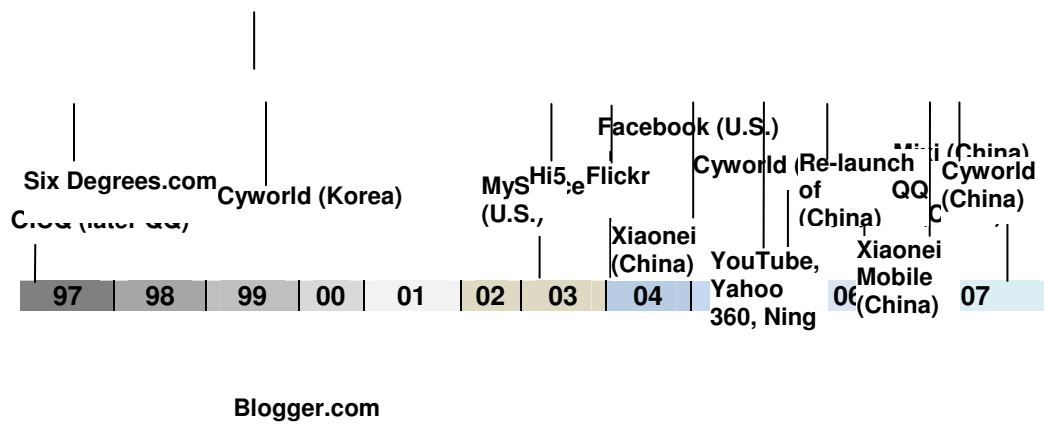
Source: itim international (<http://www.geert-hofstede.com/>)

**Table 3. Hofstede scores of the three countries**

Hofstede (1994) points out that biases are introduced when using national scores of the four dimensions to predict individual behavior. However, Strite and Karahanna (2006) maintain that national culture manifests through an individual's espoused national culture values. Strite and Karahanna (2006) define the espoused national culture value as the degree to which an individual embraces the values of his/her national culture. Thus, culture is significant in determining the social context within which individual behave. Espoused national cultural values affect an individual's behavior and beliefs through subjective norms of a social context. In consequence, the usage of SNS is expected to be different among countries because the users have different espoused national cultural values. We argue that the espoused national cultural values have SNS formed differently.

### SNS IN US

In US, as well as China and Korea, it seems as though not a day goes by without voices reporting the somewhat unthinkable success of MySpace, Cyworld and YouTube type of virtual ventures. Although MySpace is still leading the competition as the most popular SNS portal, the increasing rate of new registered users has remain low as 1% in September 2008, according to a Neilson report. Facebook, however, has achieved a 116% increase rate that makes it the fastest growing social network website in the world. The side effects of such fast penetration of SNS span through several areas, one of which lies in online advertisement. Google, a company that has been highly recognized as the leader in search advertising business, sensed the resurrection of online display commercials and made a shocking strategic move to spend 3.1 billion in purchasing DoubleClick.com, a NASDAQ company that develops and provides Internet advertisement serving services (CNN Money.com, 2007). In fact, the SNS website had its debut long before the founders of MySpace and Facebook started developing their business plans. SixDegrees.com and Classmate.com respectively introduced their seminal virtual networking features that are widely replicated in today's SNS moguls. Figure 2 presents a timeline for a comprehensive list of SNS initiators.



Modified from Boyd, D.M., and Ellison, N. B. "Social network sites: Definition, history, and scholarship," *Journal of Computer-Mediated Communication* (13:1) 2007.

**Figure 2. The Timeline for SNS Website Debut**

A main explanation for the first movers' failures (e.g. SixDegrees.com closed in year 2000) is attributed to the weak readiness of Internet users who might not be mentally prepared for moving their personal social networks to a somewhat immature platform. According to Boyd et al. (2007), SNS websites can be defined as web-based services that allow individuals to (1) construct 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. The nomological nature of these connections may differ from site to site, but the backbone technologies of SNS websites are alike in consisting of a series of relationship management programs or simply social software. These programs are diversified in their special focus and strengths. For instance, YouTube is successful due to its robust capability in streaming online video content and open content infrastructure so that users can freely browse, distribute, and upload user generated content. Meanwhile, Facebook is outstanding in establishing real life social connections through such dimensions as universities, and it adopts an open application programming interface (API) thus enhances social dynamics by incorporating value added applications, or widgets, developed by outsiders. Important common features within SNS infrastructure can be summarized into three categories: open APIs, customizable service oriented architecture (SOA), and open content platform (e.g. compatible with various media types).

### Caveats and Challenges

For many SNS websites in US, an imminent challenge is how the business can consistently generate revenues. Charging the service fee to users is not feasible because, at least in the current stage, the opportunity cost attached to SNS subscription is fairly low for customers. Hence, advertising seems to be the only option that can fulfill the goal of sustainable profit. Since advertisers will not invest on sites with low visiting volume, SNS offers a valuable solution by providing contextual advertising or "targeted-ad" and selling premium services to users including large data storage and more administrative rights. In this regard, both Facebook and MySpace have excelled in accumulating the critical mass required to generate advertisement incomes. Using member profiles and behavior tracking, the embedded website program can select the most appropriate product or service to advertise according to user's preferences. According to an eMarketer report (eMarketer.com, 2007), the global revenue from advertising is projected to grow from approximately \$445 Million in 2006 to over \$3.6 Billion by 2011, as shown in Figure 3. Another noticeable new trend in SNS revenue generation is network agglomeration, through which multiple social profiles can be integrated into one so as to easily manage these profiles located in different SNS sites. Instant messaging tools and e-commerce websites can also participate in the network migration process so as to extend their

reach to a wider population. Figure 4 presents the distribution of advertising spending among major SNS websites.

	2007	2008	2009	2010	2011
<b>U.S.</b>	<b>\$350</b>	<b>\$900</b>	<b>\$1,380</b>	<b>\$1,810</b>	<b>\$2,515</b>
<b>Outside of U.S.</b>	<b>\$335</b>	<b>\$530</b>	<b>\$745</b>	<b>\$970</b>	<b>\$1,115</b>
<b>Worldwide</b>	<b>\$1,235</b>	<b>\$1,910</b>	<b>\$2,555</b>	<b>\$3,140</b>	<b>\$3,630</b>

Source: eMarketer.com (in millions)

Figure 3. The Projected Growth in SNS Advertising Spending 2007 – 2011

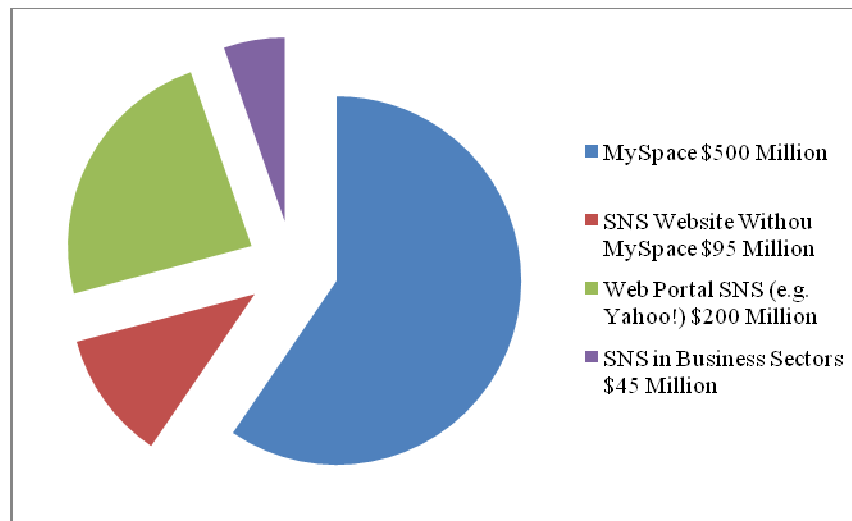


Figure 4. The Advertising Spending (US Market) in 2008

SNS websites establish their customer base by concentrating on certain dimensions of real life social relationships. There are services provided for online dating, business partnership extension, and personal network management. Some SNS are even targeting on niche segment of the market such as office ladies and industry specific professionals. The discrepancies of these business models have led to a shifting focus on marketing efforts of SNS business. The dating SNS, for example, highly prefers vast media broadcasting as the main approach to boost account registrations whereas the SNS website consisting of small business entrepreneurs almost exclusively relies on oral recommendation and solid partnership to expand the membership network. Dating SNS allows, or to some extent encourages, screen name use to hide the true identity and business SNS nurtures customer trust by using a real name system for registration and communication. Being reluctant to utilize media advertising can be explained by the inbound oriented nature of business SNS, which differs from dating SNS that gives the top priority to accumulating as many visitors as possible.

### SNS IN CHINA

The Chinese SNS industry started as a close imitator of Facebook model with one of its initiators such as xiaonei.com, which is a college based social network portal. Seeing such the lack of strong local contenders, MySpace.com introduced its Chinese version as one of many branches around the world. In order to absorb as much local elements as possible, MySpace.cn is known as “JuYou” (meaning friends getting together) in China. Compared to the relatively well established SNS business in US, which is clearly segmented and largely led by three or less contenders, Chinese SNS market is rife with uncertainty and confusions. A major factor responsible for such chaos lies in the transition status of technical infrastructure and complex socio-economic environment. In fact, the Instant Messaging (IM) sector

remains as the largest and most important Chinese Internet add-on service. Tencent Company has successfully nurtured its core product, QQ messenger, into a Chinese IM mogul.

The SNS practitioners in US have established a global model for other followers. MySpace and Facebook, despite the similarities in terms of function, differ significantly in operations. These differences are:

1. Facebook began with user registration that requires actual university email address, hence limiting its customer based within school range. MySpace does not have such requirement and thus capture a much wider customer base. Today Facebook is also open to public registration.
2. Facebook shares its API using open source therefore allowing third party developers to share their products with Facebook users. MySpace adopts proprietary structure.
3. Facebook outsources its advertising to Microsoft whereas Google represents MySpace in advertising business.

Such critical differences have created two distinctive contenders who have different market shares, even though most SNS users have accounts in both websites. In China, although SNS websites target on specific customer groups, we do not see a strong distinction among major practitioners largely because no one can afford to give up visitors. Moreover, Chinese SNS providers are facing several issues that their US counterparts do not:

1. Lack of a reliable credit system that allows for free and safe financial transactions.
2. Unlike US market, which began with few initiators, the Chinese market began with multiple imitators.
3. Lack of real identity penetration, which is an extension of issue 1. A critical advantage of SNS is people know each other, hence offering a great opportunity for point-to-point advertising or behavioral advertising.
4. The demographic nature of Chinese SNS users are not as diversified as US users. The former mostly consists of young people with age less than 28 and the latter is relatively much more wide spread in terms of age. Such issue can be largely attributed to the ICT penetration difference between two countries.

### **Caveats and Challenges**

Although Chinese SNS portals reside in a quite different market than US, they do share a common critical challenge – how to sustain current visitors and attract new ones. SNS websites establish their customer base by concentrating on certain dimensions of real life social relationships. There are services provided for online dating, business partnership extension, and personal network management. Some SNS are even targeting on niche segment of the market such as office ladies and industry specific professionals. The discrepancies of these business models have led to a shifting focus on marketing efforts of SNS business. The dating SNS, for example, highly prefers vast media broadcasting as the main approach to boost account registrations whereas the SNS website consisting of small business entrepreneurs almost exclusively relies on oral recommendation and solid partnership to expand the membership network. Dating SNS allows, or to some extent encourages, screen name use to hide the true identity and business SNS nurtures customer trust by using a real name system for registration and communication. Being reluctant to utilize media advertising can be explained by the inbound oriented nature of business SNS, which differs from dating SNS that gives the top priority to accumulating as many visitors as possible.

There are several commonly adopted revenue channels available in the SNS market and the strategy of combining these channels varies significantly from business to business and country to country. Tencent Company has a massive customer base of 300 million plus people using QQ. The company generates 63.6% of its annual revenue from the mobile value added services, followed by online games and digital avatar accessories sales. For U.S. based SNS company MySpace, advertisement contributes close to 100% of business income as it does not impose charge on users, meanwhile, commercial revenue in Tencent accounts for less than 5%. To obtain a broader view, Table 2 presents and compares the revenue channels used by major SNS business in U.S. and China.

### **Revenue Channel**

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	Advertising	Online Gaming	Mobile Service	Multi-Media	Online Commerce	Premium Membership	Brand Marketing	Others
Baidu Space*	•••			•	•			Search engine customized for outsider websites.
Bebo	•••	•	•	••				TV Networks
Cyworld.cn*	•••	••	••	•••	•	•	•	Entertainment Industry
Facebook	•••		•	••	•			Widget innovation
Hi5	•••			••				
MySpace	•••		•	••	•			Widget innovation
MySpace.cn*	•••		•	••	•			
Orkut	•••				•			Popular in Brazil and India
QQ.com*	•	••	•••		•	••	••	Also sells QQ brand products
Xiaonei.com*	••	••	•		••	•	•	Student Organizations
Yahoo! 360	•••			•	•			

\*China based SNS business.

Legend: The number of • indicates the level of reliance.

**Table 4. Revenue Sources for Major SNS Websites**

**SNS IN SOUTH KOREA**

The SNS industry in South Korea has drawn a different map from SNS of U.S. or China in some points: First, the SNS industry in South Korea is a perfect case to show the benefits that a Blue Ocean creator possesses. Different from U.S. or China in which multiple SNS providers compete to grab greater market share, one giant, Cyworld, has sat on the throne, dominating SNS market since 2001. As of 2008, Cyworld Korea records more than 22 million subscribers and the number corresponds to 44.7% of total population in South. In late 1990s, web service market in Korea was on growing phase, and many web sites started to provide their web community service such as online chatting, voting, or messaging. Websites competed with each other to possess network externality and to take initiative of the growing market. Cyworld launched its web community service in 1999 but its service was not popular by the users due to lack of differentiation from other web community services.

In 2001, Cyworld introduced new web community service called Cyworld mini-homepage (small individual SNS homepage) and various accessories including arbirer, skins, and dotori (acorn in English; cyber money used in Cyworld). In the sense, Cyworld is the one who makes commercial SNS's first appearance in the world. Different from SNS websites such as MySpace, Cyworld allows subscribers to create their own individual SNS homepage and to build social relationship through their individual homepage. Two representative advantages of Cyworld are ease of creating individual website and powerful network externality. Individuals are required to buy accessory to create and decorate their own website without knowledge of programs such as HTML or Photoshop. As the number of user increases, the value of the SNS also surged and the increased value attracts new people to the SNS. Table 3 present a comparison between Cyworld and Face book. Following the Cyworld, other SNS providers develop their own services by specializing their SNS areas into video or music sharing.

	<b>Korea</b>	<b>U.S.A.</b>
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	Cyworld	Face book
History	1999.09 <sup>1)</sup>	2004.04 <sup>5)</sup>
Visitors (person)	22,397,010 <sup>2)</sup> (2008.07)	42,777,397 <sup>6)</sup> (2008.08)
Subscribers	22 million <sup>3)</sup> (2008.06)	100 million <sup>7)</sup> (2008.9)
% of total population <sup>9), 10)</sup>	44.65%	32.89%
Business Model	<ul style="list-style-type: none"> <li>• Banner ads</li> <li>• Brand mini homepage</li> <li>• Homepage accessories (skin, music, avatar, etc)<sup>4)</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Web-based software promotion<sup>8)</sup></li> <li>• Commercial Ads<sup>8)</sup></li> </ul>

1) SK communication website ([http://corp.nate.com/aboutus\\_history.htm](http://corp.nate.com/aboutus_history.htm))

2) Daum directory search (<http://directory.search.daum.net>)

3) Korea Economic Newspaper

(<http://www.hankyung.com/news/app/newsview.php?aid=2008060219511>)

4) Naver blog

(<http://blog.naver.com/speedkam?Redirect=Log&logNo=60024281179>)

5) Wikipedia

6) Quantcast (<http://www.quantcast.com>)

7) Facebook website

(<http://www.facebook.com/press/info.php?statistics>)

8) Facebook website ([www.facebook.com](http://www.facebook.com))

9) Total population of U.S.A. (06-09-2008): 304,289,901 (U.S. Census Bureau)

10) Total population of South Korea (2007): 49,268,928 (Korean Statistical Information Service)

**Table 5. A Comparison between Cyworld and Face book**

Second, the rapid growth of SNS users in South Korea proposes that national culture is still significant determinant of SNS acceptance and usage. One of critical success factors of Cyworld is that the SNS of Cyworld is completely cultural embedded service. Traditionally, Korean society has emphasized the blood and regional relationship and tended to divide a person as important or not based on the ties. Cyworld has embedded this cultural climate in its SNS and designed new service, called 'il-chon (first priority) system.' The system allows a user to distinguish between intimate person and acquaintance and give a privilege to access specific data (e.g., photo, message, video, etc.) to person tied as il-chon only. Thus the cyber relationship built in Cyworld is the copy of the actual relationship in real world. Segregate relationship is the key word of Korean culture and Cyworld applied the key word to its SNS. The importance of culture can be found from failure of world top class SNSs in Korea: One of giants in SNS world, MySpace, announced that they would retreat from South Korean SNS market. Face book has not produced remarkable outcomes in South Korean SNS market. For instance, the number of subscriber of Second Life has stopped around 100,000. YouTube, the world top video sharing SNS, has been fighting desperately against local SNSs such as Pandora TV, GOM, and AFRICA. According to Ranki.com, YouTube is ranked as 6<sup>th</sup> in the area of video sharing following local SNS providers in Korea. The lack of localization is counted as a key factor to explain their fails.

Third, business model has been to explore new source of revenue. The business model of Cyworld is worth of observing. The business model of Cyworld can be classified in two: community service model and wire/wireless convergence model. The community service model aims at integrating SNS and commercial service. The uniqueness of business model of Cyworld lies in digital items and brand mini-homepage. Digital items are accessories that users purchase to overlay to their individual sites for better appearance. Digital items contains arbiter, MP3 file, skins, etc. Users can purchase these accessories with cyber money called 'dotori (acorn in English).' Users can obtain the cyber money with various ways: either of direct purchase with credit card or indirect through coupons or credit card points. To purchase one MP3 file, 6 dotories (worth of 40 cents) are required. Users with surplus dotories exchange the dotori into cash by involving online transaction. By calling the cyber money dotori, Cyworld is able to construct a positive image on their commercial activities. Another source of revenue is brand mini-homepage. As the influencing power of Cyworld, firms begin to pay attention to the potential of individual website for SNS as ads channel. Companies such as Samsung Ever Land or KFC are operating their SNS homepage to

enhance their CRM (customer relationship management). Such SNS homepages have played a critical role in improving their social image, getting user feedbacks on their new products, and advertising their products directly. Such companies pay a fee for opening and operating their SNS homepage.

Wire/Wireless convergence is the future business model of Cyworld. As the mobile platforms are getting critical in daily life, Cyworld has rolled out a new version of SNS services presented through wireless/mobile platform, including cell phone photo services and mobile Cyworld. It is also planned to launch wire/wireless video sharing service.

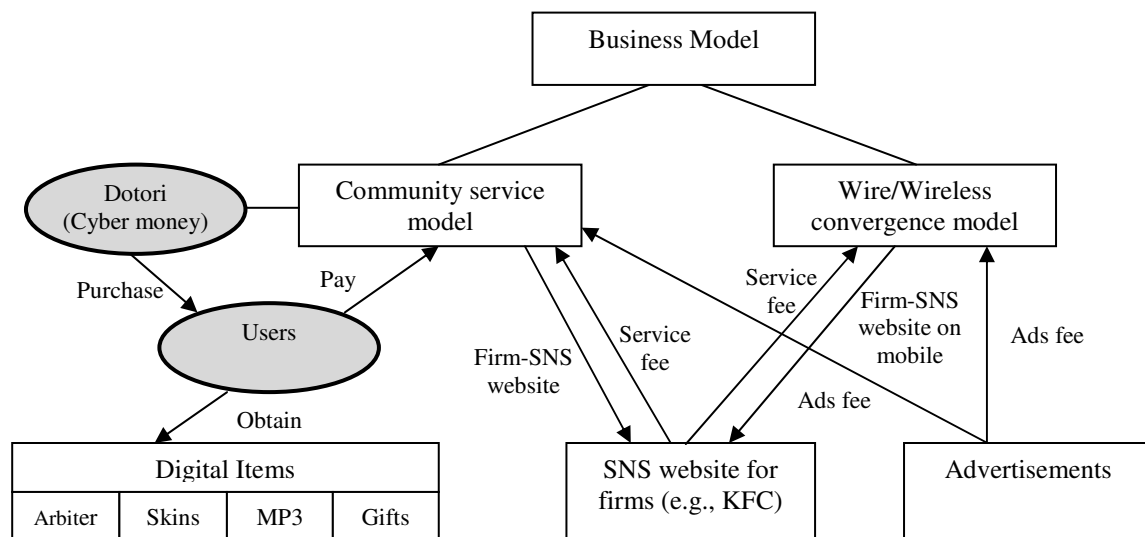
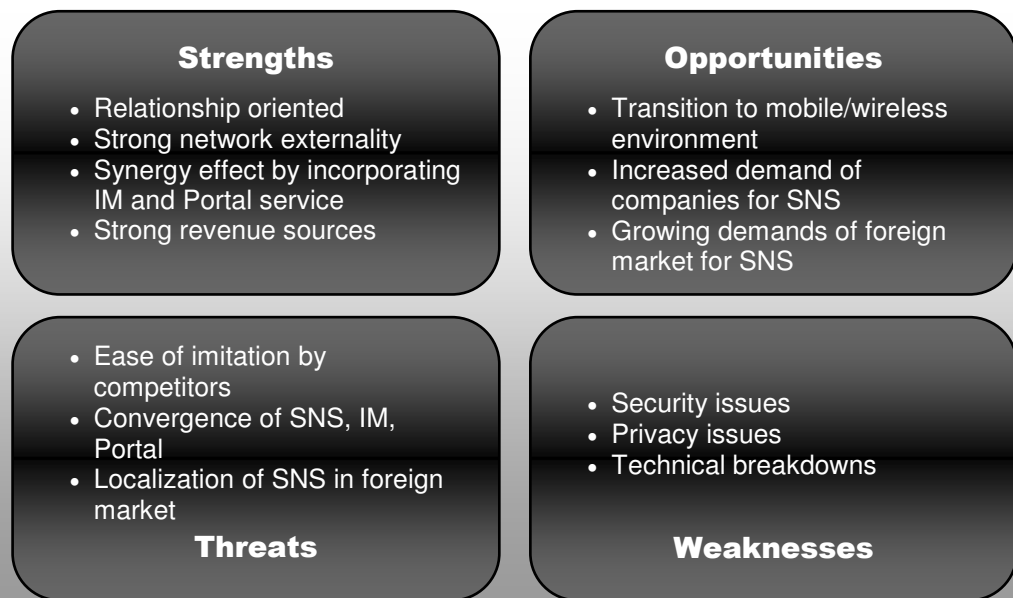


Figure 5. Business model of Cyworld

### Caveats and Challenges

The SWOT analysis of Cyworld clearly presents of opportunities and challenges.



**Figure 6: Cyworld SWOT Analysis**

The challenges of SNS industry in South Korea could be categorized in three: development of new business model, adoption in new IT environment, and localization of SNS in foreign markets. However, these three challenge issues are interacted each other.

Cyworld attempts to develop new business model which enhances commercial activities in SNS, including 3D shopping mall, virtual entertainment facilities, and virtual market. However, the center of the business model is to develop innovative SNSs for mobile platform. South Korea is leading country in terms of mobile phone penetration. The transition to mobile/wireless environment has been major trend in SNS. SNSs in mobile/wireless environment requires new paradigm and it would be big chance for new entrance but bad news for present giant, Cyworld. Furthermore, the convergence of portal service, IM service, and SNSs are dramatically occurring. SNSs and other Internet services such as search, email, or streaming are no longer separated anymore. This rapid change in SNS environment requires cooperative activities among the service providers in each area. Since the SNSs are required to provide through mobile platforms, the cooperation with mobile/wireless communication service companies would be critical.

Localization is another critical challenge. Some SNS providers including Cyworld plan to invest foreign countries to cope with growing SNS demand. Cyworld has entered many countries including U.S.A., China, Japan, and Vietnam. However, the expectation of the foreign branches is not bright. For instance, Cyworld settled down its SNS in Europe last year and SNS foreign branches in Japan, Hong Kong, China, and Vietnam record deficit for two years in a row (Asia Business, 2009). Therefore how to compete with existing giants in foreign countries and how to localize in foreign markets are coming challenge to SNS providers in South Korea.

**RESEARCH IMPLICATIONS & CONCLUSION**

The research of SNS must deal with two aspects of the phenomenon: technical development and social studies. Due to the unexpected success of SNS artifact, limited research can be found in investigating its impacts on human society at large. On the other hand, much work has been done in social sciences to interpret economic behaviors of human in group setting (e.g. social exchange theory) and the power of the social networking for social good (e.g. social capital theory). Moreover, there have been many empirical and qualitative research works investigating the relationship between societal factors and information systems in various problem domains, mostly diffusion and adoption issues. In-depth empirical research is also warranted in cross cultural analysis as it provides important aspects of social structure that closely associates with virtual human interactions. For instance, oriental cultures tend to value group interest more than individual interest. Korea is a society that has the highest level of anxiety over future among three countries in which Americans worry the least about future (Hofstede, 1984). In this case, Hofstede and other researchers have proposed multiple frameworks through which we can study and apply to our specific research designs.

It is argued that information systems research must necessarily evolve in response to the emerging trends (Lyytinen and King, 2004). Hargittai (2007) further contends that college students in the U.S. constitute an ideal population in which to study differences in particular types of digital media uses, given their high connectivity levels. The Korean and Chinese college students also demonstrate the similar level of connectivity and appear to be an ideal candidate for cross-cultural analysis of SNS usage in this research. Another interesting area in SNS use stems from the nature of instrument respondents. People in low age range dominate the virtual “hang out” places in basically every cultural setting. Since young people are

found to be much more wired than their older counterparts, measurements must be catered and variables need to be controlled for such idiosyncrasy to understand latent dynamics that are of interest.

As social computing and virtual communities evolve, people's communication behavior will be fundamentally changed. To face such an important trend, IS researchers must continuously develop explanatory and prescient studies to guide our actions. For instance, although many endeavors have been contributed to decipher Internet-mediated transaction phenomenon in the perspective of customer trust and privacy concerns, there is a lack of relevant research in SNS domain. Hence, this research aims to obtain scientific evidences indicating how privacy and trust play different roles in SNS usage between two distinctive cultural settings: U.S. is highly mobilized (low context), individualistic, lack of long-term goal, and short power distance, whereas China has strong collectivism, long-term orientation, high context, and obvious power distance. Doing so is beneficial in making contribution to our understanding of emerging issues in the social network service domain through the integration of cross-disciplinary theories.

## REFERENCES

1. Asvasund, A., Clay, K., Krishnan R., and Smith, M. D. (2004). An Empirical Analysis of Network Externalities in Peer-to-Peer Music-sharing Networks, *Information Systems Research*, 15, 155-174.
2. Boyd, D. M., and Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship, *Journal of Computer-Mediated Communication*, 13, 1, Article 11.
3. Dhar, V., and Sundararajan, A. (2007). Information Technologies in Business: A Blueprint for Education and Research, *Information Systems Research*, 18, 2, 125-141.
4. eMarketer Daily. "One Tenth of China Online," eMarketer Daily, 1 February 2007, accessed at [http://www.emarketer.com/Article.aspx?1004531&src=article1\\_newsltr](http://www.emarketer.com/Article.aspx?1004531&src=article1_newsltr) on 1 February 2007.
5. Galliers, R. D., Madon, S., and Rashid, R., (1998) "Information Systems and Culture: Applying 'Stages of Growth' Concept to Development Administration," *Information Technology for Development*, 8, 89-100.
6. Hargittai, E. (2007). Whose Space? Differences among Users and Non-Users of Social Network Sites, *Journal of Computer-Mediated Communication*, 13, 1, 276-297.
7. Hofstede, G.H. (1980) Motivation, Leadership, and Organization: Do American Theories Apply Abroad? *Organizational Dynamics*, 42-63.
8. Hofstede, G.H. (1984) Culture's Consequences: International Differences in Work-related Values. SAGE Publications.
9. Hofstede, G.H. (2001). Culture's Consequences: comparing values, behaviors, institutions, and organizations across nations, Thousand Oaks, CA: SAGE Publications.
10. Internet Usage World Statistics (2008) Asia Report, accessed at <http://www.internetworldstats.com/stats3.htm#asia>
11. Leidner D. E. and Kayworth, T. (2006) "A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict," *MIS Quarterly*, 30(2), 357-399.
12. Lyytinen, K., and King, J. L. (2004). Nothing at the Center? Academic Legitimacy in the Information Systems Field, *Journal of the Association for Information Systems*, 5, 6, 220-246.
13. Parameswaran, M., and Whinston A. B. (2007). Research Issues in Social Computing, *Journal of the Association for Information Systems*, 8, 6, 336-350.
14. Parker, G., and Van Alstyne M. (2005). Two-sided Network Effects: A Theory of Information Product Design, *Management Science*, 51, 1494-1504.
15. Strite, M. and Karahanna, E. (2006). The Role of Espoused National Cultural Values in Technology Acceptance, *MIS Quarterly*, 30(3), 679-704.
16. Straub, D. W. (1994) "The Effect of Culture on IT Diffusion: E-Mail and FAX in Japan and the US", *Information Systems Research*, 5(1), 23-47.