2005

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ABSTRACT

This paper presents an application of the Critical Social Theory (CST) in understanding cyberspace behavior. CST can be used as one of qualitative methodologies in IS research. However most prior IS research utilized a very narrowly drawn insight from CST without historical and social context considered. This study tries to apply a general concept of CST for the purpose of providing plausible explanation for cyberspace behavior. CST identifies unjust conditions and tries to find the cause through critical reflection, which eventually might lead to emancipation of people. In this paper, a cyberspace behavior case of a relatively developed country where the Confucius tradition dictating people's physical world behavior is defied in cyberspace is investigated. The case deals with compulsive buying behavior of avatars by the teenagers of the country. Empirical data were also collected and the result shows that teenagers were under immense pressure to excel in academics and inclined to immerse themselves into virtual world of avatars in order to relieve stress. This phenomenon indicates that in the unjust condition of the society, members who have no realistic power to fight back might resort to illusionary emancipation in cyberspace. This paper shows that a general CST can be adopted for an IS research method tackling topics relevant to cyberspace behavior. This should be regarded as a meaningful expansion of application areas of CST in IS research.

Keywords: critical social theory, customer relationship management, IS research method, cyberspace behavior

INTRODUCTION

CST which was started around 30s produced many scholars who developed their own approaches to it. Held (1980) chronicles various augmentations and diversions by CST theorists from Horkheimer, Adorno, Markuse, and Habermas. Despite differences, CST theorists strive to achieve a general goal that is to expose unjust conditions of the society and bring about emancipation of people. Namely they believe that modern society even including developed ones lacks complete emancipation of people due to existing unjust conditions. In relation to information system research, Lyytinen and Klein (1985) first proposed a possibility of utilizing Habermas' theory which was one of CST theorists' concepts in information system research. Later Hirschheim and Klein (1994) developed an information system development paradigm based on emancipatory CST concepts. However there has been only one study that was based on empirical data analysis while utilizing CST, which was the one conducted by Ngwenyama and Lee (1997). By analyzing discourse data between system analysts they exposed the occasions of critical reflection to remove distortion in information exchange, which then was considered as expanding media richness of e-mail. The CST theory that they utilized was Habermas' theory of communicative action (1984).

Habermas' contribution to CST is thought to be that he is probably the only one who proposed a realistic solution that might lead people to emancipation. Other scholars, for example, Markuse and Adorno were able to expose injustices of modern developed capitalist system, but only to predict violent breakup of the system without proposing a practicable way to emancipation. In contrast Habermas proposed that human beings could change the unjust world through reasoning. He believed that the power of rational reasoning that could lead to critical reflection would free human beings of deceptive and illusionary information supplied by the oppressive society. Haberms' theory of communicative action explains four types of social action: (1) instrumental, (2) communicative, (3) discursive, and (4) strategic. Habermas suggests that, while performing these social actions, humans can be critical of validity associated with the information being disseminated through communication. Thus humans are capable of critical reflection, which can lead to detecting distorted communication such as false, incomplete, manipulative, and insincere information being transmitted to them such that they can emancipate themselves from those mental pollutants. Following are descriptions of each social action with examples of everyday situation:

1. Instrumental action: This behavior refers to mechanical operation-like information communication. For example, a mother can say to a child as following: "Your room is so dirty. Clean your room now!" In this communicative action, the mother is transmitting a mechanical information to her son, in other words, there is very little doubt on the validity of this information; her son is likely to follow what the mother says without questioning the validity. But on the other hand, there is still a chance that the child can have a critical reflection on the given information. Namely, the child can think about the degree of dirtiness of his room and might conclude that the room is not so dirty to be cleaned at the moment. But in this kind of instrumental action, critical reflection rarely happens since information is very rational.
2. Communicative action: This behavior refers to information communication for the purpose of achieving mutual understanding. For example, a boss can say to his subordinate as following: "We have to buy more powerful computers so that we can cope with customer orders." Upon hearing this, the subordinate can start critical reflection on the given information and ask the boss as following: "What do you mean by more powerful computers? Are you referring to memory or CPU?" In other words, the subordinate was concerned with the validity of the information transmitted to him. In work places, this kind of communicative action can happen frequently in order to make sure of the mutual understanding of the information. The frequency of critical reflection is higher than instrumental action.
3. Discursive action: This behavior refers to information communication for the purpose of resolving any disagreement among members of organizations. For example, a worker can say to his/her fellow worker as following: "We have to hire new software engineer since our computer system has a serious software problem." Upon hearing this, the other worker can start critical reflection and say as following: "I think it would be better to hire an outsourcing company instead of hiring a new employee." The conversation can go on until they resolve their differences. Thus, the frequency of critical reflection is higher than communicative action.
4. Strategic action: This behavior refers to information communication for the purpose of manipulating others. For example, a worker can say to his/her fellow worker as following: "Could you bring me to a meeting with people from marketing department? I think I can help you in formulating marketing strategy." Upon hearing this, the other worker can start critical reflection and ponder about any hidden agenda and say as following: "Well, let me think about it for a while. I will let you know by tomorrow." Most adults in contemporary society are sophisticated enough to recognize any strategic action from others and likely to question the validity of the given information. In other words, strategic action brings about the most frequent critical reflections among social actions.

Due to this useful insight on human communication, IS scholars adopted the theory of communicative action as the tool to understand otherwise unseen phenomenon during information system development. However the theory of communicative action should be understood much broadly than narrowing on critical reflections that happen on system developers' minds, i.e., critical reflection ought to be more fundamental and general such that emancipation would happen in many dimensional ways. Namely removing distorted information for system development is just one dimension of emancipation; general emancipation should happen to the system developer in terms of his/her social/political/spiritual awareness, that is, enlightenment. In short, there are two possibilities of application of CST in IS research:

1. A narrowly-drawn CST concept such as theory of communicative action can be applied for research in information system development.
2. A general CST concept that it is a CST's duty to expose unjust conditions of the society and lead the way to emancipation of people can be applied for research in cyberspace behavior since cyberspace provides a field for human beings to experiment and challenge the norm of behavior of the society as well as a venue to generate the false feeling of emancipation due to the virtual nature of cyberspace.

In this paper, a case of cyberspace behavior is introduced and analyzed through a lens of a general CST and relevance of applying a general CST in research of cyberspace behavior is demonstrated.

We observed cyberspace behavior of people of South Korea whose national IT infrastructure was highly developed. We need to recognize the role of national IT infrastructure since attention-worthy cyberspace behavior can materialize especially when most people of the nation are provided with well developed IT infrastructure including high-speed Internet connections at the affordable price. Korea has been recognized worldwide as one of a few nations with highly developed information technology and Internet infrastructure. As for the high-speed Internet usage rate, Korea is reported as the number one country in the world. More than 10 million users subscribe to high-speed Internet services via such means as ADSL, VDSL, community LAN, and satellite. When taking the total number of Korean population into consideration, the high-speed Internet subscription rate in Korea is roughly 21%

according to the Korean government ministry news (Ministry of Information and Communications, 2003). This is a remarkably high usage rate when compared to those of other OECD countries since the average rate of high-speed Internet subscription in OECD countries is just 1.26%. Thus in this context Korea is an appropriate target of research on cyberspace behavior.

CASE OF AVATAR CONSUMPTION

For many consumers in Korea, the Internet is just a part of their normal daily life. They regularly purchase products through the Internet. All the products sold via the Internet can be grouped into the following two categories: pure cyber products and conventional products sold in cyberspace. There are still few products that can be regarded as pure cyber products. Thus it is remarkable that a pure cyber product called "avatar" is so popular in Korea that the market size in 2002 almost quintupled when pitched against 2001 size (Joong Ang Daily News, 2002). Avatar was first introduced to Korean on-line users in 2000 by then a hardware-oriented Internet business "Neowiz.com" through its Internet community site named "www.sayclub.com." Only a year after its introduction to market, avatar was selected as one of the ten hit products in 2001 in Korea (Samsung Economic Research Institute, 2004). Unlike other cyber products such as MP3 and on-line movies that are also sold in conventional markets, avatars are sold purely in cyberspace. While avatars have shown potential to be a successful cyber product in Korea and possibly in other areas of the world, more and more cases of compulsive and addictive shopping behavior related to avatars are observed as the frequency and intensity of the Internet use increases. Addictive consumption may also pose considerable threat to the social well-being of avatar consumers and/or others around them. Mendelson and Mello (1986) define addictive behavior as "behavior that is excessive, compulsive, beyond the control of the person who engages in it, and destructive psychologically or physically." As examples, they cite drug abuse, alcoholism, anorexia, bulimia, excessive gambling, exercising and television watching. Contrary to our expectation, addictive consumption appears to do some good to the respective consumers because addictive behaviors reduce stress (Davidson and Neale, 1986). Avatar consumption can be addictive as one may purchase props over and over again since the behavior might reduce stress. Many Korean teenagers are addicted to avatar consumption. From a general CST point of view, Korean teenagers' cyberspace behavior such as avatar addiction is a major indicator that exhibits how unjust and oppressive Korean society is. As with the first case of cyber-democracy, Korean tradition of emphasizing Confucius value that academic achievement is deemed superior to almost anything in life. It is no wonder that Korea has highest number of Ph.D.s per capita in the world. Also due to remnants of the die-hard authoritarian rule, teenagers were not allowed to rebel or even engage in frank expressions as well as acts that can relieve their stress. In short, they are supposed to study all the time until they pass the college entrance exam. Obviously most of teenagers can not enter the top colleges, which means that for most teenagers, teenage years are likely to be gloomy due to pressure to excel in academics. This unjust and oppressive condition of Korean society for its teenagers contributes to the way they behave in cyberspace; they resort to compulsive and addictive purchase of avatars and its props in order to engage in false emancipation through fantasy of having his/her existence of choice in cyberspace. They can metamorphosis into anything and do anything technically possible in avatar world. This feeling of false emancipation reinforces addictive consumption of avatars. This behavior is not likely to bring about any critical reflection and no change in unjust conditions. Instead there have been incidents of destructive behavior in real life. However we should note that these are teenagers who are one of weakest members of the society and do not have any realistic means to fight back. From a general CST point of view, unjust condition of the society is the one to blame for cyberspace phenomenon of addictive consumption of avatars by Korean teenagers, rather than teenagers themselves. We also suggest that teenagers must feel false sense of emancipation by reducing stress induced from avatar consumption. In other words, no critical reflection as well as emancipation was materialized in this cyberspace behavior. We investigate this phenomenon empirically and a survey was conducted.

An Empirical Investigation

Avatars refer to pictures, drawings, or icons that users choose to represent themselves in cyber space. Props are objects that on-line users may add to their avatars such as a hat or cigar. Types of avatars include animal, cartoon, celebrity, evil, real face, idiosyncratic, positional, power, seductive, and many other avatars (Suler, 1999). What is unique about avatars in Korea is that avatars and props are very popular with on-line consumers and props are purchased item by item by on-line consumers while props of avatars in the USA are not sold separately. In other words, avatars in Korea have much potential to create a successful market. At initial stage, on-line users in Korea are given a free avatar of his or her choice. From then on, on-line users have to purchase avatar props to continue to decorate their cyber selves. Typical avatar props are sold for about $0.5 to $1.00 per piece. Recently, however, high-priced avatars and props are being introduced into the Korea's avatar market. Freechal.com, a Korean ISP, recently opened an avatar shopping mall named "Marry Lou Nanton" offering, for instance, an avatar prop (i.e. a female

avatar's jacket) with a price tag of $7.00. Furthermore it is even possible to buy "plastic surgery" options for the avatar of one's choice. The consumers of avatars in Korea can be briefly characterized as follows. In terms of demographics, most avatar users are in their teens or early 20s (Two thirds of them are teenagers). These generations feel very much comfortable with using computers and surfing the net. The number of avatar purchase reached over 10 million in 2002. It is particularly alarming that too many teenagers spent money on avatars repeatedly. Incidents of teenagers addicted to avatars committing crimes to obtain money to buy more props were frequently reported. For example, some teenage girls went so far as to offer cyber prostitution where the girls were engaged in sexually explicit conversation with adult male on-line chatters (Dong Ah Daily News, 2002). These male counterparts were asked to provide the teenage girls with expensive avatar items (e.g. dresses, jackets, accessories, etc.) that were needed for decorating the girls' avatars. More seriously, these girls did not appear to grasp the negative consequences of their cyber behavior. One 15-year old girl who was engaged in cyber prostitution was reported to say "I do not understand why that (i.e. cyber prostitution) is bad at all! It is not real, you know." Another tragic case of addiction is as follows. An 11 year old girl committed suicide after getting a scolding from her mother for spending 1,700,000 won (US $ 1,450) over a period of 6 months on avatar items (Dong Ah Daily News, 2003). The girl repetitively purchased avatar items before her spending spree ended tragically. In our study we are motivated to find out what makes these teenagers be addicted to avatars. Korean teenagers who are either high school or junior high school students are under enormous pressure to excel in academics because of extreme competitiveness of the college entrance exam. In Korean society, which college one graduated from matters most for one's success in life. For example, if one is a graduate of Seoul National University which is the most prestigious college, one will have a very high chance of getting the best jobs. Therefore many parents force teenagers to concentrate only on studying. This makes teenagers often unhappy and stressed (Hankyoreh Daily News, 2002). We posit that teenagers in Korea must be addicted to avatars because they find having alternate selves in cyberspace as a way to escape from stressful real world. The following is our proposition to explain avatar addiction phenomenon in Korea.

H1: Stress caused by pressure to study plays a significant role in being addicted to avatar prop purchase.

In terms of determining if one is addicted to avatar prop purchase, we relied on interview with 6 self-confessed avatar-addicted teenagers. They are likely to purchase more than 10 times per week on average. This means that they purchase more than one prop everyday. This behavior is similar to the pattern of other addictive behavior such as gambling. Gambling addicts do go to casinos everyday since they can not control their urge to gamble (Baumeister, Heatherton, and Tice, 1994). We have conducted a cyberspace survey with the following questionnaire:

Background: Please answer the following questions if you are a high or junior high school student who has an avatar.
Q1: Have you purchased a prop for your avatar more than 10 times per week on average?
a) yes b) no
Q2: Do you feel stress reduced when purchasing an avatar prop?
a) strongly disagree[1] b) disagree[2] c) agree[3] d) strongly agree[4]

This survey questionnaire was published as a web page listed in various Korean search engines and directories and had been on-line for five months from 10/2003-02/2004.

267 people responded to the cyberspace survey. Table 1 shows the result of the survey.

	Group: Yes to "avatar addiction"	Group: No to "avatar addiction"
Means	3.8	2.6
Number of Subjects	31	236

Table 1: Avatar Addiction Survey Result.

We categorized the subjects into two groups based on their answer to the first question: those who answered YES (31 subjects) and those who answered NO (236 subjects) to the first question. Then the average numeric value of answers to the second question was calculated for each group. Finally, Comparison of Means of two groups using SAS software was conducted. The statistical test showed that H1 was accepted with p-value < 0.05. In other words, Teenagers who are not addicted to avatar consumption are likely to feel less stress than those who are addicted. Teenagers who feel lots of pressure tend to try to escape from it by indulging in avatar consumption. It is possible

for teenagers who feel lots of stress to indulge in other behaviors that might reduce stress. However the survey result confirms that avatar consumption behavior plays a statistically significant role when it comes to stress reduction. Thus the cause of avatar consumption addiction phenomenon among Korean teenagers can be attributed to their desperate desire to escape from tremendous stress that they have to endure while coping with pressure to study all the time.

Meaning of the Result

Addictive consumers of avatars in Korea appear to enjoy stress reduction through easily controlling (i.e. purchasing & consuming) avatar items, while their self-control is undermined as they try to purchase avatars repetitively. Baumeister (2002) shows that self-control failure may be an important cause of addictive purchasing. Of particular interest is a self-control failure case in which consumers may hold goals that are in conflict with regard to a particular indulgence. This situation is an accurate reflection of the condition of many addictive consumers. Consumers in general want to feel good, and when they are upset, the goal of feeling better becomes increasingly central to their actions. Thus, to the extent that a consumer is torn between spending money for the sake of feeling good and doing something good in the long run (saving money in the process), emotional distress may shift the balance in favor of making the purchase. Applied to consumer behavior of avatars, the implication is that consumers who are emotionally upset or stressed may be more likely to put prudent self-control aside in the hope that purchasing goods or services will make them feel better. In this respect, too much emphasis on good grades at school must make teenagers in Korea emotionally stressed and eventually lead some of them to addictive consumption of avatars. Even addictive consumption of avatars appears to do some good to the respective consumers since addictive behaviors reduce stress and may lead to a temporary state of feeling good. Even though in order to explain addictive behavior, we resorted to self-control theory, from a general CST view, this cyberspace phenomenon has its roots in social, historical, and political aspects of life in Korea. Teenagers would achieve false emancipation while consuming avatar products because as proven in the empirical data analysis, this cyberspace behavior reduces stress and promotes sense of well-being. However no real life change can be expected out of this behavior in the direction of critical reflection and emancipation. Critical reflection has to happen to adults of society who have realistic power to challenge the status quo and only after then, real life emancipation may arrive at the teenagers of Korea. Figure 2 describes the process of the application of a general CST for this case.
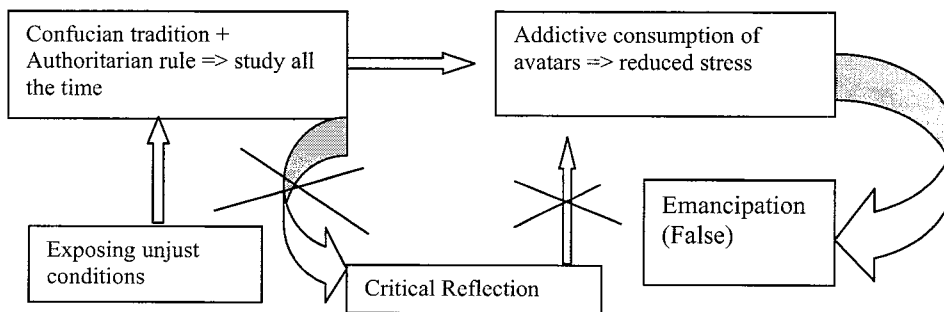

Figure 1: Process of a General CST Application.

CONCLUSION

This paper demonstrated that a general CST in contrast with the existing CST application could be adopted for an IS research method using empirical study of a case. In the case, a study of Korean teenagers' addictive consumption of avatars in cyberspace reveals that teenagers would achieve false emancipation while consuming avatar products because this cyberspace behavior reduces stress. However no real change can be expected out of this behavior in the direction of critical reflection and emancipation. Diagrams summarize the process of applying a general CST. A general CST is shown as a relevant application area of CST in cyberspace behavior research among IS topics.

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