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A Conceptual Model for Smart Paradox

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ABSTRACT

Smartphone addiction means a condition that causes problems in daily life by using itself excessively and losing controllability. In the early stage of the introduction of smartphones, it is not unrelated to the emergence of the word 'crackberry'. Smartphone addiction is addictive enough to be comparable to drugs. Smartphone addiction has similar characteristics such as withdrawal symptoms and tolerance in the context of Internet addiction, shopping addiction, and alcohol dependence. The increasing time of using a smartphone is tolerance. The withdrawal symptom is that if you cannot use your mobile phone, you may feel uneasy, feel nervous, and feel like your cell phone ringing. In addition, people who are highly dependent on smartphone are not easy to refrain from using the smartphone, or when it cannot carry out important work due to the use of smartphone. According to results of experiment research on smartphone addiction at the university of Queensland, Australia, persons who are addicted to a smartphone feel uncomfortable and withdrawn as persons who are addicted to alcohol or drugs, and they also feel anxiety when they are forced to turn off their smartphone. Furthermore, when they do not get a phone call or a text message, they can act as if you are ignored and take your self-disgrace. In sum, smartphone has been devised to prompt human communication, but eventually it creates a paradoxical situation that causes problems to cut off human communication. Therefore, this study is to propose a conceptual framework to increase understanding the phenomenon of 'smart paradox' and propose causal propositions between each factor. It is the ultimate goal of this study to help understanding smart paradox through conceptual frameworks and propositions.

Keywords: Smartphone, Paradox, Addiction, Communication, Smart Paradox.

1. INTRODUCTION

With the proliferation of the mobile phones, communication in interpersonal relationships is mediated increasingly by information and communication technologies (Baym, Zhang, Kunkel, Ledbetter & Lin, 2007). Over the past 10 years, the total number of mobile phone subscribers has reached 40.49 million.

Furthermore, 90% of all teens are using smartphone at the end of 2005. It is reasonable to assume that people are enthusiastic about smartphone. Spending more time with smartphone is an adapting process to new devices and media such as radio, television, and the Internet as in previous generations rather than morbidity. However, if people are obsessively obsessed with their smartphones, their smartphones are no longer a tool for communication, but something that dominates human life. It would be a hyper-connected environment.

Internet addiction refers to the state of withdrawal and tolerance of Internet use and results in an impairment in daily life. Smartphone addiction means a condition that causes problems in daily life by using itself excessively and losing controllability. In the early stage of the introduction of smartphones, it is not unrelated to the emergence of the word 'crackberry' (a compound word for crack and blackberry). Smartphone addiction is addictive enough to be comparable to drugs.

Smartphone addiction has similar characteristics such as withdrawal symptoms and tolerance in the context of Internet addiction, shopping addiction, and alcohol dependence. The increasing time of using a smartphone is tolerance. The withdrawal symptom is that if people cannot use their smartphone, they may feel uneasy, feel nervous, and feel like their smartphone ringing. In addition, people who are highly dependent on smartphone are not easy to refrain from using the smartphone, or when it cannot carry out important work due to the use of smartphone. According to results of experiment research on smartphone addiction at the university of Queensland, Australia, persons who are addicted to a smartphone feel uncomfortable and withdrawn as persons who are addicted to alcohol or drugs, and they also feel anxiety when they are forced to turn off their smartphone. Furthermore, when they do not get a phone call or a text message, they can act as if you are ignored and take your self-disgrace.

Some persons cannot able to concentrate on works because of the habit of looking into smartphones. That is, smart devices increase the speed of work, but smart devices will impede individuals' work concentration. According to the "Risk Factor for 2029" survey conducted by SUVA, a Swiss-based insurer in September 2010, smartphone is one of the risk factors. The report predicts that people will be working around the clock because of hyper-connected smartphone. Such a smartphone addiction is not limited to adolescents and adults. It is also a problem for infants and children.

In order to appease a crying child, parents often give their smartphone to their child. In this case, infants and children with weak control can easily fall into smartphones as strong external stimuli. It is desirable that parents do not hand over their smartphones to infants and children who are about to become self-possessive.

In sum, smartphone has been devised to prompt human communication, but eventually it creates a paradoxical situation that causes problems to cut off human communication. Therefore, this study is to propose a conceptual framework to help understanding the phenomenon of 'smart paradox' and propose causal relationships between each factor. Smart paradox refers to the fact that mobile instant messengers (MIM) are damaging to real life relationships. One of the main reasons for using smartphones is smooth communication among people (Kujath, 2011). The MIM replaces traditional computer mediated communication (CMC) between friends and family (Best & Krueger, 2006). Kuhath, (2011) mentioned that use of the Internet for communication purposes is the primary reason for CMC. For this reason, the recent explosion in CMC has led to a phenomenal upsurge in the availability and use of mobile instant

messengers (Anderson, Fagan, Woodnutt & Chamorro-Premuzic, 2012). This phenomenon has widened the breadth of interpersonal relationships. But the quality of the relationships is rather lower than before. This, in turn, tells what is the limit of MIM. Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, (1998) found that excessive use of the Internet was associated with decreased communication among family members within a household, a reduction in the size of one's social circle, and increases in depression and loneliness. Nonetheless, many believe that MIM will improve the quality and quantity of human relationships because it offers opportunities for users to develop personal ties with others (Best & Grueger, 2006). For this reason, many people still use MIM excessively. According to Bessièrè, Kiesler, Kraut & Boneva (2008), people who communicate more have more social resources, and those with more social resources have better psychological and emotional well-being, lower levels of stress, greater happiness, and relationship-formation and satisfaction. But paradoxically, what MIM users get is loneliness rather than happiness due to relationships on mobile. In line with this, Cummings, Butler & Kraut, (2002) claimed that we need to know how computer-mediated communication affects the quality of particular social interactions and relationships.

It is the ultimate goal of this study to help understanding smart paradox through conceptual model and causal relationships.

2. LITERATURE REVIEW AND PROPOSITIONS FORMULATION

Dunbar's Rule

British anthropologist Robin Dunbar, a professor at Oxford University, found interesting facts. In the early 1990s, he studied the sociability of more than 30 primates including chimpanzees and monkeys. He found that the size of the neocortex of the cerebrum was proportional to the number of interacting friends. The neocortex is a layer that covers the surface of the cerebrum and is an area that manages higher mental functions such as learning, feeling, will, and perception. Considering this size, he concluded that the number of primate who can maintain a friendship is about 150.

The average remaining population of primitive tribal villages in Australia, New Guinea, Greenland, etc. is around 150 people. The fact that the number of carrying out effective combat is 150 also supported the conclusion. No matter how many people make a relationship, the number of people who can manage close friendships is 150. It is the so-called Dunbar's law.

Dr. Dunbar applied this rule to making friends on social networks. He compared "social people" who manage thousands of people and "ordinary people" of hundreds. 'Friend' was to contact each other at least once a year. The conclusion was that there was no significant difference in the number of true friends between the two groups. Individuals who have tens of thousands of connections are actually close to only about 150 people.

The most important thing in human relations is not quantity but quality. Therefore, we should not mistake human relationships in the virtual world for reality. Even some persons who have relationships with many people in online fall into the illusion that they have also good humanity.

Some people may mistakenly think that clicking on the "Accept" button has created a relationship. On the other hand, they may also think that clicking on the "Reject" button disconnects the network easily.

It should not be overlooked that online interpersonal relationships cannot replace human relationships in reality. Americans watch TV for an average of four and a half hours a day. They spend most of the time on watching TV except working and sleeping. This means the severance of relations with family. It is a world of 'together' and 'apart' while communicating and empathizing. The human relationships are also same. If someone excessively sticks to the formation of human relationships on the online medium, the interpersonal relationship in the offline becomes neglected. Online is not a substitute for human relationships, but a complement.

Keep in mind that no matter how many phone numbers are stored in your contact, you are limited to being able to maintain intimate relationships. This limit applies equally to online. Therefore, quality is more important than quantity in human relationships.

Internet Paradox (Internet Blues)

The Internet leads to more and better social relationships by freeing people from the constraints of geography or isolation because the Internet allows people to join groups on the basis of common interests (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). For this reason, people use the Internet mainly for interpersonal communication (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). However, paradoxically, the Internet is causing people to become socially isolated and cut off from genuine social relationships, as they hunker alone over their terminals or communicate with anonymous strangers through a socially impoverished medium (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). That is, the Internet use for interpersonal communication does not imply that their social interactions and relationships on the Internet are the same as their traditional social interactions and relationships (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, (1998) called it the 'Internet Paradox'. Wästlund, Norlander & Archer, (2001) called this phenomenon as 'Internet Blue'. Thus, it is important to understand social impact of Internet use (Kraut, Kiesler, Boneva, Cummings & Helgeson, 2002). Whether the Internet will have positive or negative social impact may hinge on the quality of people's online relationships and upon what people give up to spend time online (Kraut, Kiesler, Boneva, Cummings & Helgeson, 2002).

3. CONCEPTUAL MODEL OF SMARTPARADOX

Excessive Use of MIM to Decline of Relationship Quality

On October 10, 2011, CNN Internet edition introduced the 10 social issues of a change from proliferation of mobile devices such as smartphones and tablet PCs. One of the ten social issues mentioned here is a lack of real conversation. It is pointing out that the mobile phone as the communication medium paradoxically discontinues the conversation by changing patterns of relational communication. People who are abnormally obsessed with smartphone will no longer have conversations with their families. Cummings, Butler & Kraut, (2002) asserted that the most frequent Internet users are spending less time with friends and family since going online. Even when they sleep at night, they hold their smartphone in their hands. As a result, they are neglected in other hobbies and their work. As with Internet addiction, it becomes obsessed only with the relationship on the smartphone as the reality has dissipated. Many people who are addicted to smartphone believe that mobile devices support and maintain meaningful relationships. Thus, it is hard to form a normal personality.

In the case of adolescents with a high degree of shyness and low self-esteem, the ability of smartphone to express themselves without direct meeting is a great attraction to them. So they become accustomed to forming human relationships through smartphones.

Most people enjoy chatting on their smartphone and check their e-mail every day. But if someone goes too far on a smartphone, he or she can live in a virtual world like a hermit-like loner. Thus excessive use of MIM research pathologizes quality of online relationships (Morahan-Martin, 2005). Although, the quality of online interactions and friendships is inferior to those in real life, excessive MIM users prefer online communication to real life communication, and they are more likely to spend time online in social channels such as chat rooms (Morahan-Martin, 2005). The reason for this phenomenon is that MIM users believe that mobile messengers can provide strong sense of community, companionship, acceptance, and social support, with many online friendships transferred to real life (Morahan-Martin, 2005).

Low Relationship Management Skills to Excessive Use of MIM

The 'ghost men' refers to those who deal with other people as if they are facing an invisible ghost no matter where they are.

A professor of psychology at Seoul National University said, "Every semester, I asked students about the conditions of success. Recently, I asked students the same question, and many of them answered that it is an ability to manage interpersonal relationships." Many people have seen in a long time of social butterfly itch. However, it is difficult to form a relationship. In fact, many students do not know how to make a friend of persons. Due to the development of communication technology, we have established relationships with many people through online, but interpersonal intimacy has been depleted paradoxically. Experts argue that the reason arises from the reduction of interpersonal conflict.

Before the hyper-connectivity, there was frequent controversy in conversation with family members and people around them. In this process, people have gradually learned how to negotiate and persuade others through the use of communication. These skills have evolved into an ability that forms human relationships in society. But today, there is no conflict for those who have been living in the ME society. So, they do not know how to establish a relationship with others.

In the real world, Humans still have the nature to establish relationships with others. Social network services (SNS), such as Twitter and Facebook, have touched the nature at the right time. These services are effective in broadening interpersonal relationships. It is possible to make friends with one click. Online users can have relationships with hundreds of people around the world every day. However, online relationships do not necessarily lead to actual relationships in the offline world.

Affiliation Formation to Excessive Use of MIM

Adolescents are not adults and children and have no sense of belonging. They want to belong to somewhere to pursue their identity and want to share their feelings with others. The use of smartphone has increased opportunities for communicating with friends. and personal satisfaction is being met among friends. They get the feeling that they achieve recognition as one of a group.

Excessive use of MIM to Loneliness

Individuals who excessively use their smartphone are often accompanied by psychological symptoms such as depression, anxiety, and adjustment disorders.

Eugene Corporation conducted a questionnaire survey on communication channels targeting 400 employees. A majority of respondents said that the proliferation of Social Networking Services (SNS) and smartphones has widened the extent of human relationships but the depth has become shallower. 72% of respondents say that they have less than an hour a day talking face to face with their colleagues or bosses until they leave work. It is interpreted that the development of IT has contributed to the expansion of human relations but it does not guarantee the qualitative growth of the relations. Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay & Scherlis, (1998) found that among new Internet users, online time diminished social involvement and psychological well-being.

During the daytime, people who chat with a lot of people on Twitter are struggling with loneliness at night. Many people around them during the day disappear like ghosts at night. Although they try to chat with people who are not seen on Twitter or Facebook to overcome loneliness, emptiness in their heart still remains.

Researchers at the Brigham University of the United States analyzed 148 studies on interpersonal relationships targeting 308,000 people. Those who have a good relationship in social life are 50% less likely to die than those who do not. This result implies that the formation of human relationships influences health.

It has been known that one of the reasons women live longer than men is because they are active in forming human relationships. Julian Holt-Runestad, who led the study, said, "The lack of interpersonal relationships is like smoking 15 cigarettes a day. Having a low interpersonal relationship is as bad as being an alcoholic, and twice as bad as obesity."

Loneliness is a pervasive feeling that everyone may feel. However, if loneliness persists for a long period of time or becomes more intense, loneliness can develop into depression and affect its life span.

In a recent issue of the *Journal of Psychological Science*, a team at Brigham Young University in the United States reported that loneliness and social isolation are serious life-threatening conditions. The researchers collected and analyzed 3 million samples through previous studies that linked to solitude, social isolation, and living alone. They found that the social bond is closely related to the mortality rate. Maintaining intimate relationships with people around them has a positive impact on their health.

In line with this result, it is worthwhile noting that older people felt more loneliness than younger people, and their mortality rate was higher. Julian Holt Runstad, who led the study, said that being a loner is a serious problem just like obesity.

Even if people feel lonely, it is good for psychological health if they try to get away from social isolation by using light conversation. A psychological research team at the University of London investigated about social isolation and loneliness with 6500 people (age 52 or older). Seven years later, they found that the mortality rate of lonely people who had little contact with family, friends and neighbors was two times than people person.

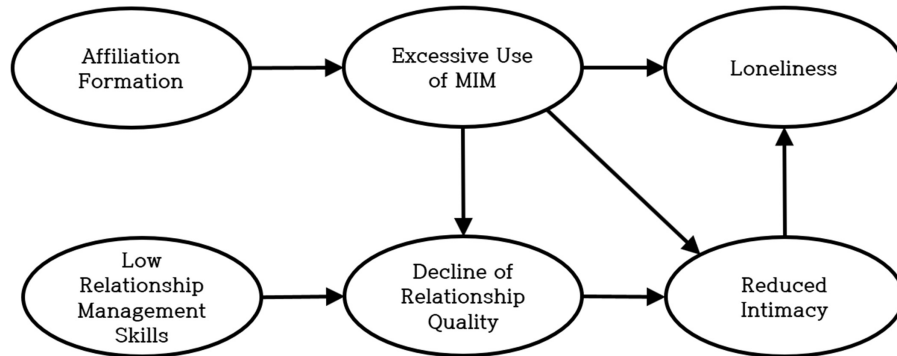


Figure 35.1: Conceptual Model of Smart Paradox

4. CONCLUDING REMARKS AND IMPLICATIONS FOR FUTURE RESEARCH

The emergence of smartphones has made human life more closely connected to more people as well as things. Hyper connected society has come. Especially mobile instant messenger (MIM) has made a huge difference in human communication method. The MIM has provided the basis for human being to communicate in real time, at anytime and from anywhere.

This technology has caused humans to engage in much more dialogue than ever before. It also makes it possible to communicate with far more people than ever before. Because of this interest, many people spend more and more time using it. It is true that this technology has contributed to expansion of interpersonal relationships. This benefit, however, has resulted in a variety of side effects such as excessive use of smartphone, smartphone addiction, misuse, and abuse.

The most interesting thing is that the MIM has expanded the breadth of human relationships but has lowered the quality. Many people use MIM to establish and maintain human relations, but they are not able to establish desired relationships. Nevertheless, they become more immersed in forming the desired relationship through MIM. Because many believe that quality and quantity exist simultaneously in the relationship on mobile. In addition, they have feelings of belonging and attachment to each other by nature (Iriberri & Leroy, 2009). These individuals also get various benefits from MIM such as information exchange, social and emotional support, social interaction, and time and location flexibility (Iriberri & Leroy, 2009). They can interact with the person they want at the time they want. However, in reality, the use of MIM has contributed only to quantitative expansion. relationships through MIM are still not diminishing. This cycle eventually leads people to depend on MIM. This phenomenon is called smart paradox.

This study attempted to propose this phenomenon as a conceptual model. To do this, we can help understand the complex phenomenon of smart paradox. This model also clearly reveals the causal relationship between phenomena occurring in the smart paradox. Thus, this model can be used to predict the causes and consequences of smart paradoxes. MIM, which is used for better human relations, is worsening interpersonal relations.

Through proposed conceptual model, we can propose that the excessive use of MIM is due to human desire for relationship formation. Excessive use of MIM lowers the quality of the relationship. The important thing is that the decline in the relationship quality is due to the poor relationship management capabilities as well as the excessive use of MIM. A decline in the quality of relationships leads to a reduction

in interpersonal intimacy. And eventually it causes loneliness. The excessive use of MIM can be a source of decline in relationship quality, a decrease in intimacy, and loneliness.

Thus, Individuals who want to reduce loneliness need first to improve relationship management skills. In addition, they must be free from MIM dependency.

References

- Anderson, B., Fagan, P., Woodnutt, T., & Chamorro-Premuzic, T. (2012), Facebook Psychology: Popular Questions Answered by Research. *Psychology of Popular Media Culture*, 1(1), 23-37.
- Baym, N.K., Zhang, Y.B., Kunkel, A., Ledbetter, A., & Lin, M. (2007), Relational Quality and Media Use in Interpersonal Relationships. *New Media & Society*, 9(5), 735-752.
- Bessière, K., Kiesler, S., Kraut, R., & Boneva, B.S. (2008), Effects of Internet Use and Social Resources on Changes in Depression. *Information, Communication & Society*, 11(1), 47-70.
- Best, S.J., & Krueger, B.S. (2006), *Online Interactions and Social Capital: Distinguishing between New and Existing Ties*. *Social Science Computer Review*, 24(4), 395-410.
- Cummings, J.N., Butler, B., & Kraut, R. (2002), The Quality of Online Social Relationships. *Communication of the ACM*, 45(7), 103-108.
- Iriberry, A., & Leroy, G. (2009), A Life-Cycle Perspective on Online Community Success. *ACM Computing Surveys*, 41(2), 1-29.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998), Internet Paradox: A Social Technology That Reduces Social Involvement and Psychological Well-Being. *American Psychologist*, 53(9), 1017-1031.
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002), Internet Paradox Revisited. *Journal of Social Issues*, 58(1), 49-74.
- Kujath, C.L. (2011), Facebook and MySpace: Complement or Substitute for Face-to-Face Interaction?. *CyberPsychology, Behavior, and Social Networking*, 14(1/2), 75-78.
- Morahan-Martin, J. (2005), Internet Abuse: Addiction? Disorder? Symptom? Alternative Explanations?. *Social Science Computer Review*, 23(1), 39-48.
- Wästlund, E., Norlander, T., & Archer, T. (2001), Internet Blues Revisited: Replication and Extension of an Internet Paradox Study. *CyberPsychology & Behavior*, 4(3), 385-391.