

A Study on the Artistic Representation of the Cellular-Phone Addiction and the Personal Data Leakage of Modern Society

Joohun Lee* and Jiseon Baek*

*Dong-Ah Institute of Media & Art, Seoul, Korea
vincelee21@gmail.com, vvvbaek@hotmail.com

Abstract

Although the development of digital technology and network has brought great convenience in modern lives, amongst the aggravated complexity in the contemporary society, modern minds who have failed to create genuine relationships undergo a sense of alienation and solitude that may appear as a type of social pathology called cellular-phone addiction. Also, while the emergence of the information age seemingly brings about benefits including diverse acquisition regarding knowledge and broader communication, underneath exists side effects involving leakage of private information. Especially, being excessively addicted to relationship network may induce one to become insensitive towards leakage of private information without recognizing, and thereby instigating yet another social problem. Media art is very practical in terms of suggesting a critical perspective concerning social phenomena and elevating them into a work of art by rendering them artistically. Particularly, when social problems of the modern days are expressed through digital technology, media art provides the audience with a foundation that will enable them to sympathize without hostility. This dissertation calls attention to the contemporary problems regarding cellular-phone addiction and possible hazards of information leakage based on media art, while at the same time proposing the production process of a media art work that attempts to raise awareness and sympathy on such social issues.

Keywords: Addiction, Personal Data, Leakage, Cellular-Phone Artistic Representation

1. Introduction

While modern people who inhabit a highly developed society enjoy plentiful benefits materially, the disability to fulfill psychological voidness is presenting various psychological pathology. A representative example is the phenomenon of attempting to find a psychologically stable state by obsessing with certain objects. Along with internet addiction and drug addiction, obsession to digital networks such as cellular-phone or SNS is also severe. This is because although the diversity of networks has become broader through the development of networks, the voidness that comes from human alienation still exists, as the potential for

feeling psychological sympathy rather subsides.

Meanwhile, another negative social phenomena fostered by popularization of cellular-phones and daily use of networks is the hazards of personal information leakage. Although rapid and vast construction of networks greatly contribute to quick information exchanges, proportionality, there coexist the potential dangers of personal information draining out, irrelevant to one's willingness. Yet most people recognize these risks only superficially, often exposing their phone numbers mindlessly. Phone numbers exposed in this way are abused for arbitrary spam messages or calls, subjecting people to unnecessary messages or phone calls.

As illustrated above, along with artwork appreciation, awareness is to be raised regarding problems of network era. This is expected to be executed through realizing the networking service dependency of modern people and the dark sides of the informational era caused by potential personal information leakage into a media art work by artistic expressions. In this process, philosophical meanings are to be effectively rendered by artistic sentiments and symbolic expressions. Also, through realizing interactive media art work that is run by audience participation, artwork is to be directly enjoyed and thereby allowing a more profound work appreciation.

2. Study Background

2.1 Cellular-Phone Addiction of Modern People

Addiction is by definition, being excessively engrossed in certain objects or activities, ultimately an act for fulfilling certain desires[1]. While in the past it was a term limited to abusing of objects, it is used in various fields for signifying a common form in modern days[2], not only indulging in certain chemicals such as drugs, but also involving obsession in certain activities such as gambling, exercising, TV viewing, or playing games[3]. Online games or internet addiction are recently called attention to[4]. Especially, through the popularization of cellular-phones, the term cellular-phone addiction has been coined, meaning one loses one's will and control, causing difficulties in daily life due to excessive usage of cellular-phones without having a specific aim, while becoming dependent and compulsive when using cellular-phones[8]. Especially, cellular-phone addiction has been defined as what makes society members lose control over themselves as a consequence of continuous usage amidst the flow of information age, and as what brings about the negative influences regarding the user's lifestyle and performance of function[5].

This is not only related to the fact that an individual has become less substantial in the enormously organized industrial and informational era, but also has association with the society culture that forces infinite competition based on efficiency and speed. Also, despite how electronic communication technology development and various communication networks such as the internet and cellular-phones have increased the methods of human interaction and it's amount, the main form has become light and superficial relationships, making it difficult for modern minds to create sound relationships for establishing and maintaining a healthy self identity. As a result, they feel empty from social life and attempt to search for identity of one's value in networks such as cellular-phones or internet through obsessing in them, yet once addicted, begin to feel a sense of anxiety and nervousness when one is unable to log on to the network, as they lose their will and self control. However, once logged on to the network, one often becomes subordinated to the cellular-phone due to the possibility of network going down. Even in reality, one faces situations where one is isolated from people around after logging off, thus one becomes subordinated, irrelevant to one's willingness. Namely, while contemporary people believe that they log on to a network spontaneously, in fact they are being forced to log on to the network by the desire not to be left out, and once they log on, are controlled by the network regardless of their will.

2. 2 Information Society and Personal Information Leakage

Information society is developing a convenient lifestyle based on the speedy and efficient flow of information. However, regardless of one's will, hazards of personal information leakage are also increasing. Especially, despite the social agreement and legal devices regarding personal information, without one's agreement private information is being collected, drained and used arbitrarily, thereby causing instances that go against one's social, economic benefits. For instance, although an individual's phone number is prohibited from being leaked to a third person, useless, unnecessary information and for-profit marketing spasms are forcefully exposed and provided, triggering damages[6]. For these reasons, informational autonomy as to private information ought to be strictly followed, and even under instances when phone number is exposed and used without agreement, an individual who is using the informational device must remain alert.

2. 3 Communication and Expressing Method of Modern People

As the contemporary society went through the industrial and informational society, along with materialistic abundance and the development of mass media, a vast and diverse relationship has been formed. Proportionally however, in a societal environment that is materialistically affluent but not mature enough, new problems regarding corruption and missing of morality have emerged. In other words, human alienation and identity confusion that derive from the disability to find true self by being isolated from one's true nature and the modern societal structure that has been digitalized lead to an incomplete relationship and a disharmony between a group and an individual[15].

Meanwhile, one thing an artist should do is to discover an implication through profound insight about contemporary social phenomenon, and to build a social agreement through artistic expressions. Particularly, the works that attempt to visualize concerns and pain that are felt by modern people who inhabit a diverse and complex contemporary society through sincere observation and perception has been consistent.

In this background, when realizing anxiety, isolation and side effects such as privacy leakage that modern people go through, parts that have not been recognized by contemporary people were persuaded to stand out so that they could be acknowledged. Especially, by expressing problems modern people possess into a new type of formative language applied from media art, through the process of internalization and symbolization, artistic value and sociocultural meaning were to be broadened. Media art that can be expressed in various styles through the application of multimedia is extremely suit for rendering the characteristics of modern people who live in an intricately organized digital society with respect to accuracy, coldness, and sophistication. Also, as interaction realized through digital technology induces audience reaction more actively, and makes audience exist as a necessary piece for completing the art work, by encouraging them to participate, it provides the audience with a more intense experience. Through a such interaction process, the message the artist attempts to pass on is more effectively delivered.

3. The Process for Work Realization

The arrangement diagram for the work is shown in <figure 1>. Above the screen a video is projected from the projector, while behind the wall which the audience can not see through, exists a hidden box that includes a computer that creates the video. Also, the artist's cellular-phone for receiving calls from the audience, and a mike for collecting the ringtone are placed.

In order to visualize the process of audience using their phones for taking part of the communication network, interaction between their phones and the work must be realized. To easily accomplish this, sound reaction using the mike was utilized for artwork realization. The system was designed so that when the

audience calls the artist by the signified phone number in the artwork using their own phones, the computer will collect the artist’s phone bell ringing using the mike, while the computer will create a video on live. This kind of work is simple enough to be presented without the communication network, yet as the audience use their phones to call, they feel that icons added on the screen symbolize them and thereby feeling an interactive video effect. <Figure 2> shows a block diagram with the same artwork movements.

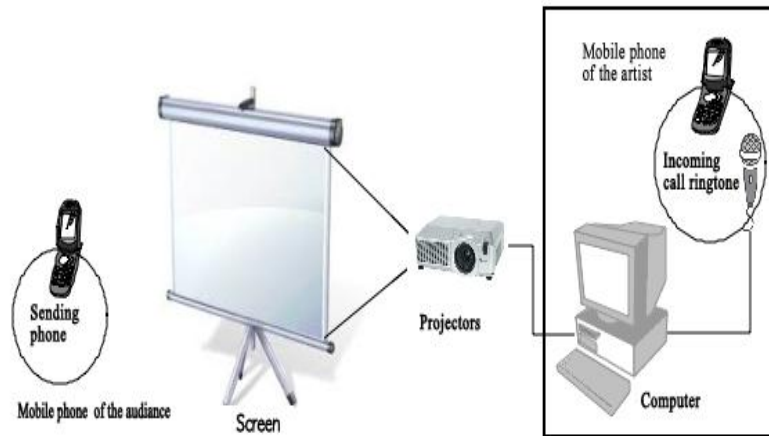


Figure 1. Realized Work's Arrangement Diagram

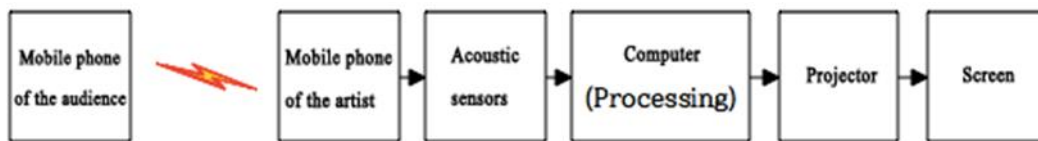
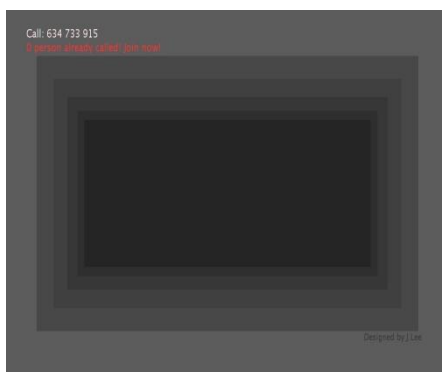


Figure 2. Work Movements' Block Diagram

4. Work Introduction

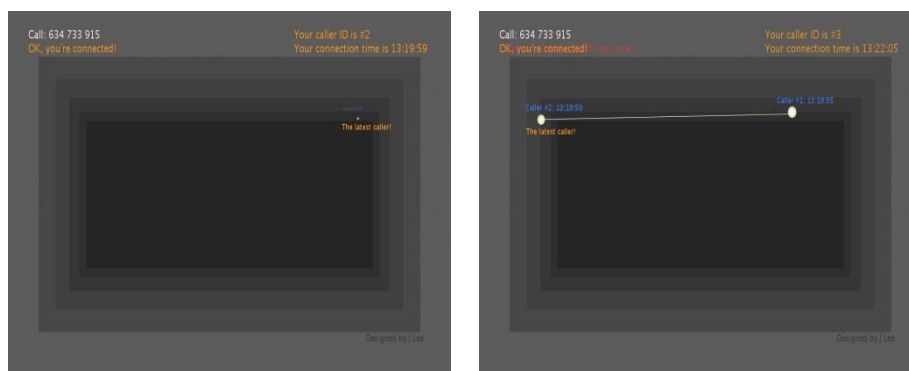
4.1 Work's Initial Screen and the Representation Regarding Audience Access



(a) Initial Screen



(b) First Audience's Object Representation



(c) Second Audience's Access Time

(d) Third Audience's Access Time

Figure 3. Work's Initial Screen and the Representation Regarding Audience Access

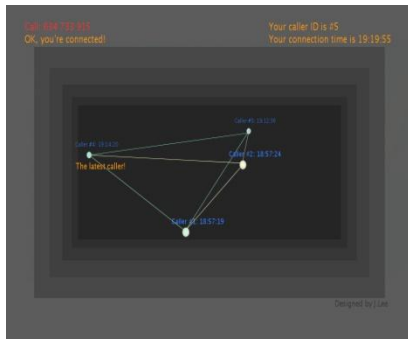
<Figure 3> is the images that represent the changes in the artwork as the audience use their cellular-phones to call the artist's phone number that is written above in the work.

The work's initial screen is as shown in (a) of <figure 3>. At first there exists only dark space on the screen without movement. On the top right corner of the screen, a text¹(Call 634 733 915) that tells the audience to call the artist is written, and on the below notes the amount of audience who have called the phone number along with a phrase(0 person already called. Join now.) of persuasion for participation. If the first arrived audience sees the phrase and calls the number, the minute the phone bell rings, the left phrase changes to a phrase(OK, You're connected.) showing that the connection is on, while the top right corner phrase changes to a phrase(Your caller ID is #1. Your connection time is 19:30:30) that shows how many times it has been accessed. Accessor ID is presented via the order of the accessed audience, and the accessed time is expressed as a 'hour:minute:second' form. At the same time the screen shows a circular sphere icon(Ball Image) that symbolizes the audience that have accessed successfully by calling, and beside the sphere icon appears the accessor ID with the accessed time on the top right corner. If the second audience calls and accesses, this audience also gets an accessor ID and the sphere icon with the accessed time appears((c) of <figure 3>). Also, the icon that has been added like this is connected into a line with the icon that was already present((d) of <figure>).

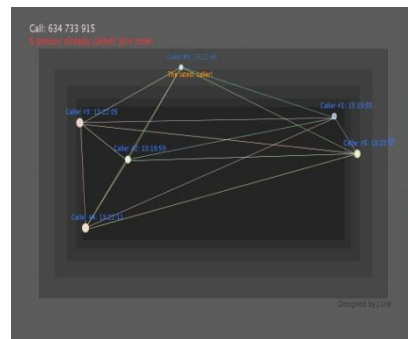
4. 2 Representation Change Regarding Audience Increase

<Figure 4> shows how the work changes as the number of audience who participate in it increases. As shown in the diagram, when there are small number of participating audience, the number of sphere icons(Ball Image) and the lines between the images are also small, hence do not form a complex shape, yet when the number of the audience increases, the number of sphere image increases and proportionally, the lines that connect these images also grow in number geometrically. Once the work goes past a certain number, the lines between the spheres become so complex that the entire screen looks like a bundle of spider web. Also, the moving sphere images create a form that reminds an insect attempting to escape the web. This symbolizes modern people, who after accessing the spider web, can not be free from it despite their will. Like an insect trapped in this giant spider web, it illustrates contemporary people's relationship addiction as they are addicted to cellular-phones and are unable to escape from it freely. It also expresses the reality where the hegemony has gone over the web, and in one's own web, the trapped individual has become a weak, passive being.

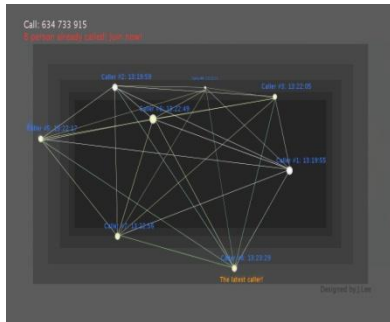
¹ '634 733 915' is the phone number of the cellular-phone the artist possesses in Barcelona, Spain, the place where the artwork was exhibited.



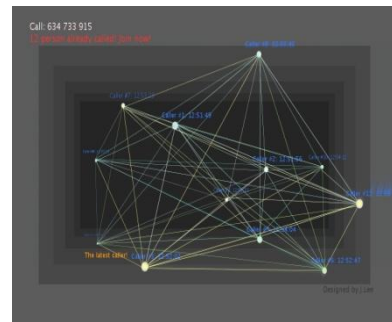
(a) Representation when N = 4



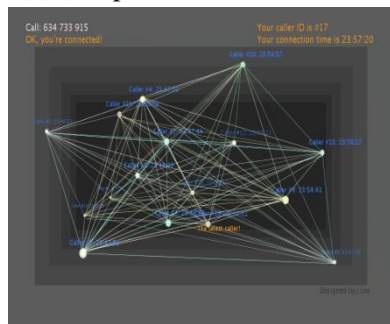
(b) Representation when N = 6



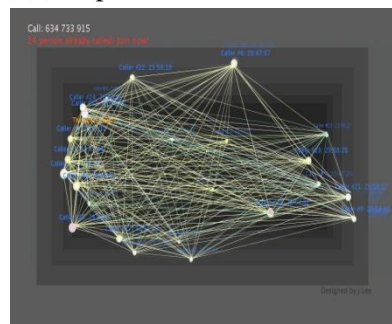
(c) Representation when N = 8



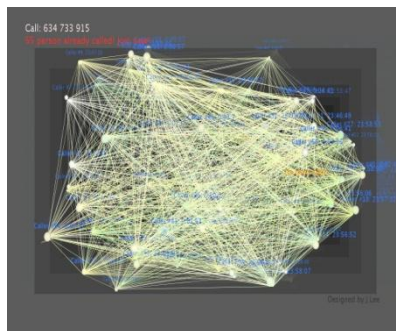
(d) Representation when N = 12



(e) Representation when N = 16



(f) Representation when N = 22



(g) Representation when N = 42 (h) Representation when N = 12

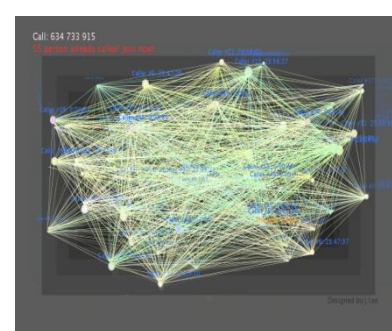


Figure 4. Representation Change Regarding Audience Increase

4. 3 Messages Sent After the Exhibition

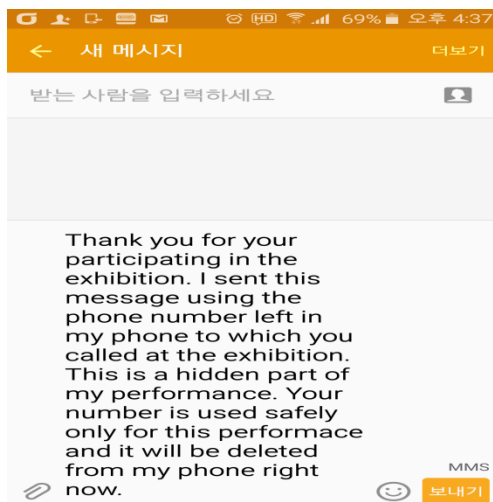


Figure 5. Text Messages Sent to the Audience After the Exhibition

The hidden meaning of this work is to let modern people recognize the fact that although they are highly anxious about private information being exposed unknowingly, in real lives, they very often fail to perceive it. Despite the fact that phone number is an important information, it is often revealed to a third party unconsciously, while many times the possible danger is not paid much attention to. In fact, this becomes the trigger towards exposures to spam calls or advertisement messages. In this work also, the audience only pays attention to the appearance of the sphere image that signifies the fact that they have been accessed when calling the artist, and fail to perceive that their phone number has been recorded on the counterpart's phone when they call somebody. However, on the artist's phone still exist the phone numbers of the audience. In order to emphasize the possible hazards, and as another hidden message, the artist sends messages to the recorded phone number of the audience to raise awareness. After the exhibition is over, when about three days have been passed, the artist sends messages as shown in <figure 5> to the audience's phone number. The message includes words of thanks for taking part in the artwork, while assuring the audience that the phone number will not be abused for any other usages and will be deleted immediately. Although this does not pose any real threat to the audience, the fact that their phone number has been disclosed to somebody else may make the audience feel frightened as they would not have expected this kind of exposure. Also, they would suddenly perceive that they have been ignorant about their phone number exposure, and conceive the negative sides of the current networking society that permits mindless leakage of private information. These are the hidden effects the artist attempts to show.

5. Conclusion

The development of digital technology and communication technology has raised convenience for the contemporary people, yet modern society's pathology such as feelings of voidness and loss due to a rapid environment change has been aggravating along. This dissertation realizes the dark sides of modern people who have been addicted to cellular-phones, subordinated to networks, and the dangers that come from easily disclosed personal information into an interactive media art work to let the audience perceive and

sympathize. By realizing the interactive video work the audience is persuaded to participate, and hence the artist's intention is delivered more effectively. Through the work audience can see how modern minds become addicted to cellular-phones, unconsciously exposing their own phone numbers and experiencing a situation where they do not perceive the danger, and finally can recognize the artist's intention to symbolize the problem the modern society and modern people possess themselves.

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