A Study on the Public Sphere of Mobile Media

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Abstract: This paper focuses on mobile media based on two aspects. First, recent mobile device is possessed one by one regardless of age, gender and how much you hold economical, cultural, social, symbolic capital. This indicates that mobile device is fully eligible for discussion of public. Second, thanks to the features of mobility and individuality, it is free from spatial limitation, which general PC has had. Those aspects make it possible to present the concept of the next generation cyber public sphere. Thus, this paper covers the public sphere of mobile media and comes to a conclusion as follows: mobile brings potentialities in communication system.

Keywords: Mobile public sphere, Deliberative democracy, Tele-democracy, Universal service

1. Introduction

In today's Korean society, there has been some civic participation more dynamic and practical than ever. There are good examples of it – cheering events for World cup and candlelit protests of 2008. It could become possible by collecting perception of individuals and consequently producing group consciousness. Rheingold regarded a subject of this phenomenon as a 'smart mob' who will lead to changes of modern society. Likewise, there has been several hopeful examples and anticipation of having political process democratized. Cyber public sphere has played a great role of these; new media technology, such as cyber space, allows individuals and groups not only to make their full assertion quickly but also to have greater chance to influence political measures. In case of today's Korea, society has taken special interest in cyber public sphere, due to high internet diffusion rate and wide-spread tendency of making full use of it.

Meanwhile, despite of various kinds of media that includes networking technology, platform of cyber public sphere has been limited to desktop computer. Mobile, which is possible to become promising cyber public sphere, has been undervalued as a public media. In this sense, this study is going to emphasize mobile in terms of cyber public sphere.

Basically we appreciate the democratic potentiality that mobile have attained during the whole process of technical development. However, it does not mean that I regard this aspect as imperative; most of tele –

democracy is based on premise that technological aspect will determine a field of politics. Contrary to this, this study understands that mobile interacts with real social context and user of it is considered important. Thus, this study is to demonstrate that mobile 'could' become cyber public sphere, not to demonstrate that mobile cannot help but become cyber public sphere.

This study has following steps. In Chapter 2, political viewpoint on cyber space is dealt with in terms of correlation between internet and democracy. Especially, tele-democracy and Jurgen Habermas' conception of public sphere is mentioned in order to see which political meaning cyber space have to convey. This step is background for the next steps. In Chapter 3, multidimensional approach is presented to make sure that mobile could function in actuality as a public media. Firstly, based on a cognitive approach to mobile device, we learn that individuals consider mobile a social tool as well as a personal tool. Secondly, based on comparative analysis between two media, i.e., desktop PC and mobile, we could find out that mobile is of a help to relieve 'digital divide' that desktop PC generates. In this vein, mobile could offer more idealized cyber public sphere than that of PC. Finally, based on an institutional approach, we could conclude that there is institution which is essential for mobile public sphere to begin in our society, and this institution is realizable.

2. Political meaning of cyber space
2.1 Social constructivism over technology

In this chapter, we will have a chance to know political meaning that technology implies, which comprehends both cyber space and cyber public sphere. To begin with, viewpoint over technology is classified into two aspects-technological determinism and social constructivism. Alvin Toffler, on his book, 'the Third Wave', emphasized technological determinism which means that technology is powerful and ultimate factor for social change. It also means that technology evolves autonomously regardless of society and requires human to adapt to it. In this point, technology is the one mysterious and having free will. And too simplified logic over relation between technology and society is pointed out, according to this theory.

Compared to technological determinism, social constructivists value political or social context. They conclude that technology is just one element of social change and it gets changed under the influence of society. What plays a crucial role in developing technology is a social group who makes use of technology, not power of technology itself. In this sense, technology has possibility to be used to retain vested power by the specific classes.

To analyze cyber space, social constructivism seems to be better to be applied than technological determinism. That is because development process of IT has had to do with society. Tim Berners Lee, who initiates world wide web(www), insists that social characteristic is stronger than technical characteristic as far as web is concerned and web should be developed repeatedly to support universal values of human society.

In social constructivism, there are two conflicting viewpoints about outcome that technology brings. Some say that technology is used to firm unequal power structure, and some take an opposite stand. In this study, technology is concerned as a double edged sword, which means that cyber space does not foster selectively one

thing between democracy and totalitarianism. In society where social foundation for democracy exists, technology can contribute to broadening the range of civic right of choice and promote welfare and liberty in cyber space, whereas it can offer rulers strong measures of control.

Meanwhile, many theories are found regarding what kind of specific political influence cyber space has. On the average, they differ according to which characteristic we focus on among several characteristics that cyber space has. However, social constructivism concludes that cyber space presents diverse kinds of possibility, depending on the shape of social context that cyber space belongs to. In this sense, theories are diversified depending on what kind of political problems modern society has. As Benjamin Barber pointed out, if democracy needs something from technology, discussion should be started not from technology, but from society.

2.2 Tele-democracy

Representative democracy has become only alternative since direct democracy of ancient Greece, which is ideal form of democracy, had became unrealizable due to the growing number of civilians. In this circumstance, prioritized tasks had to be electing representatives and settling an election system, which has finally transformed 'question of democracy' into 'question of procedure'. Cyber space, since its advent, has been recognized as useful place where the limitation of representative democracy is able to be overcome. The word, tele-democracy contains this idea. Thanks to IT development and generalization of PC, rosy expectation about tele-democracy is getting higher.

Tele-democracy has two different definitions. One is democracy where effectiveness is enhanced through cyber space. The other is democracy where civilians are deeply involved in politics through cyber space. According to the former, tele-democracy is accomplished somewhat easily by means of e-voting system. Nevertheless, network, which lets those from everywhere vote conveniently, does not guarantee the quality of democracy. Jean Elstain points out that totalitarianism could be conducted under the mask of a large number of public opinion.[2] Therefore, the later form of tele-democracy- is more close to what we have to seek. Negligence of politics and political privatization must be overcome and cyber space must support active discussion and participation of enlightened people.

Active discussion and participation also do not always guarantee ideal democracy. These behaviors are possible to realize the mediation of deliberative democracy and populism reinforcement at the same time. According to theory of deliberative democracy mediation, netizens exchange diverse information and viewpoints through interactivity and openness, so that they collect the majority view and vitalize discussion to make decision which is based on public virtue. Theory of populism reinforcement maintains that cyber space is covered with abuse and one-sided self-assertion contrary to general expectation. It also warns that cyber space could become nothing but tool for power as people who hold media are getting willing to exercise power over time. Therefore, tele-democracy had been a conception which was based on technological viewpoint of cyber space, and now it needs maturation of civilians and political culture to be realized.[5]

2.3 Theoretical conception of cyber public sphere

Before discussing about cyber public sphere, it would be worthy to define what public sphere ultimately seeks for. Public sphere of Jurgen Habermas is 'bourgeois public sphere'. Around 17th and 18th century, bourgeois classes from England and France had made public sphere in coffee houses and salons without regard to social position. Habermas suggested equality, expansion of subject, accessibility as features of bourgeois public sphere, i.e., all participants is able to make assertion and lodge a protest. Assertion that is made should be evaluated in accordance with virtues that it delivers, not with participant's social position. Inner inequality such as the rule of discourse by a few and outer inequality such as restriction of access is not encouraged. Province of subject is expanded from politics to Art, literature and so on, thanks to diversity of participants.

These features result in deliberation, which is not merely debate but process that individuals gradually change their opinion and favor and finally make the best plan for community by using conversation and persuasion. It also differs from discussion which analyzes reality into several parts. Instead, deliberation is rather close to synthetic understanding about reality. Unlike discussion in which specific point of view tends to be justified and implanted into person's mind, deliberation is dialogue in which various points of view are integrated into one by learning and cooperation.[10] Listening of sympathy to other's opinion is another word that explains deliberation. It means that people should sympathize with opponents intellectually and emotionally. To put it simple, people should focus on public reflection and mutual understanding rather than common consent to make cyber public sphere as place of deliberation.

Cyber space has been considered more proper place than any other communication technology in terms of existence of features of Habermas' public sphere. Scholars who study correlation between internet and democracy have shown their expectation that online communication will accelerate actualization of ideal public sphere. According to them, internet contains popularity of mass media while at the same time solving the problem of mass media such as personalization and particularization of information so that Internet makes innovative change in communication and could realize alternative public sphere. This aspect could be possible through several technological features of internet: comments and trackback that is decentralized, freedom from Spatio-temporal restriction, anonymity, interactivity and so on.

In this chapter, social constructivism about technology was suggested. The idea that social context and human affect technology would become premise of this study. After that, it was proved that preexisting system of representative democracy could be replaced in good ways with cyber public sphere. And then, ideal form of cyber public sphere was presented. What is important is that cyber space should be a public sphere where dialogs and mutual understanding are encouraged. These are foundational background for discussion on mobile cyber public sphere as well as cyber public sphere.

3. Features of mobile as media

3.1 Definition of mobile

Although mobile media becomes indispensible thing in various sections such as daily life, business, the public service, etc, it is not easy to distinctively define what mobile is. That is because mobile continues to go through technological development so far, and it is multi-functional media that includes information processing,

interpersonal Communication, entertainment, etc. Nevertheless some keywords could be extracted to explain mobile: (1) portable device, (2) device which is used on the move, (3) device which supports processing of several information and telephony, (4) device with wireless communication, (5) multimedia which supports voice, text, sound, video and so on. Those that meet the requirements above are mobile phone including PDA, smart phone, laptop computer, handheld game player. Among these, this study is going to focus on mobile phone with basic function such as voice telephony, SMS, MMS, and wireless internet. It is the most omnipresent form of mobile device in our society, which becomes a prior condition for discussing publicness.

3.2 Mobile as a social communication media

This chapter will suggest the idea that mobile phone has become a social communication media. It will also give us a chance to acknowledge position of mobile phone as a core tool of social communication. Mobile phone has mobility and individuality on the whole. As far as mobility is concerned, it includes several sides such as spatial, temporal, contextual mobility. First of all, spatial mobility means physical travel. Secondly, temporal mobility brings us time saving and speedy work processing. These two kinds of mobility contribute to enhancing effectiveness. Thirdly, contextual mobility, which offers diverse usage environment, is of importance to understand how social communication style has changed by inviting mobile phone. In daily life, human interaction is affected by not only matters of when and where but also contextual factors, i.e., 'in which circumstance', 'in what way' and 'for whom'. Human interaction with mobile device necessarily becomes abundant because mobility has us face diversified context. And this aspect can be stimulated due to various ways of communication as a multi-media device and openness of internet.

More concrete features of mobile mobility are as follows. First, mobile phone expands the range of human interaction. While existing instrument for communication like telephone requires us to stand still and to know physical location where recipient stays, mobile phone causes de-contextualization of interaction and we get free from geographical restraint. Second, mobility stimulates immediacy of human interaction and keeps us accessible. Eventually, densification and division of time is strengthened, which means that can process more work in a limited time and partition the time required. Likewise, immediacy supports micro-coordination of daily life.

In terms of individuality which means that mobile is exclusively taken by individual and regarded as part of body, while media such as wire telephone and wired internet are exposed to censorship and control by being shared with others, mobile phone offers private and confidential space. According to Fortunati(2001)'s interview with mobile phone users, they prefer individuality to mobility. This shows that individuality is important features of mobile phone. Mobile individuality increases possibility of man-to-man communication and reinforces interaction between communicators. Moreover, it makes mobile to be related with identity of individuals due to exclusive possession of it. Now mobile phone is not just simple tool of communication but a personality kit[9] and it is closely associated with construction of symbolic capital of individuals and group.[11]

Thanks to mobility and individuality, mobile phone plays great role compared with other interpersonal media. It is within bounds to say that people are always on the move. That is why mobile, which is easily used on the

move, becomes important measure of communication. And it is also essential reason why mobile phone occupies core position in media combination that mobile guarantees prompt and direct connection between individuals.

On the other hand, Rheingold emphasizes democratic possibility of mobile phone because the newest type of social and political group, 'smart mob' has been organized through mobile social network. In other words, it is concluded that mobile phone creates civilians who are well aware of themselves taking part in movements toward public aims. They exercise their influence politically and carry the potential energy which can contribute to reforming distorted communication structure. After considering everything that we have discussed above, we can conclude that mobile phone has been replacing style of social interaction and our lives into new one.[6]

4. Comparing desktop PC and mobile phone as a platform of cyber public sphere.

Nowadays, platform of cyber public sphere is limited to desktop PC in our society. Even though dependability over desktop PC is getting higher as IT industry attains maturity, there is still digital information divide. Digital divide is not required because it restricts participants of discussion and blocks the realization of ideal public sphere of Habermas in the long run. In 2003, GCAB(Global Consumer Advisory Board) within AMD(American semiconductor manufacturer) released a report about digital divide. According to it, digital divide consists of 'access' and 'use' and each two aspects are classified as technological element and social element. First one is an aspect of technological access to infra, hardware and software. In this point of view, whether people have chance of access determines whether digital divide occurs or not. This has been main idea of digital divide policy so far. Second one is an aspect of technological use which implies skill to use IT. Third one is an aspect of social access, which means economical and cultural condition that affects access to IT. This condition involves age, sex, income, language, geographical location, contents that encourage utilization, usefulness and so on. Forth one is an aspect of social use, which means social possibility to promote mutual development.[12] On the basis of these four aspects of digital divide, we can find present digital divide from desktop PC as follows : (1) possession of media, (2) attitude toward use of media (3) present situation about using contents and service.
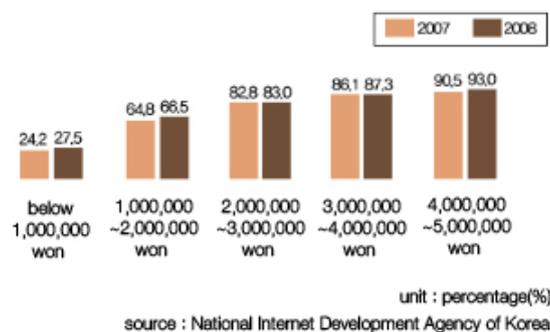

Figure.1 The rate of internet usage with different levels of income

'Media possession' is related to economical condition, especially income levels. From Figure. 1, while more than 80% of families, which makes at least 2,000,000 won a month, use wired internet, 27.5% of those making below 1,000,000 won a month is recorded, which is relatively low. As we can see from the record, diffusion rate of wired internet dramatically differs according to income levels. Thus, People with low income are not necessarily able to participate in cyber public sphere. 'Attitude toward use of media', which is second basis of present digital

divide problem, is closely related to 'media-competence'. It is ability that people comprehend media critically, use media actively, and produce something creative. It is not just obtained by learning technical and practical knowledge or by accessing to the media. Cultural capital such as high level of education and literacy is needed to deal with media smoothly. Lately, there is an aspect which is named 'present situation about using contents and service'. It contains various factors from regional features to infrastructure. For example, what are pointed out concerning present cyber public sphere are regional reality that lags behind and lack of contents that can admit social minority such as old men.

Table.1 Subscriber of wireless internet in Korea(=people who possess mobile device)

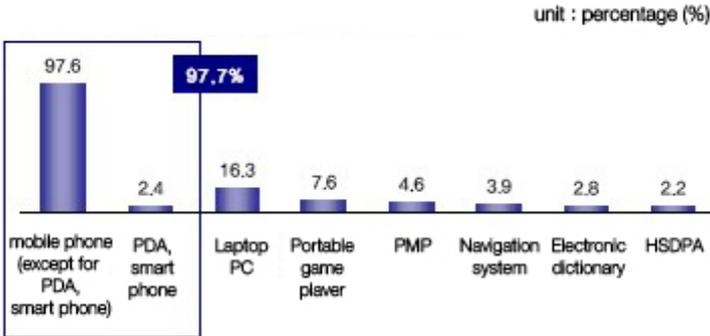| Wireless operator	The number of subscribers investigated on April, 2009
SKT	22,565,955
KTF	14,102,302
LGT	8,037,280
total	44,705,537

Figure.2 The rate of mobile device possession

Meanwhile, Mobile phone has been getting widespread as much as TV has. This is because mobile phone has become an imperative kit for modern communication and at the same time, because mobile phone has been sold for less than factory price as a result of competition between wireless operators, which means that whether one possesses mobile or not has become free from level of income. According to Table. 1, the number of mobile phone subscribers hit a record of 44,705,547, i.e., more than 9 out of 10 people in Korea. As mobile phone contains wireless internet inevitably, this figure means that most of nation can satisfy a condition to use wireless internet. Although these figures include not only mobile phone with basic features, but also high-powered mobiles like PDA, smart phone and laptop PC which should be out of discussion in this study, we could ignore them on the basis of Figure. 2. Considering that the rate of mobile phone possession is 97.6% out of all mobile devices owned, it may safely be said that the rate of subscribers for mobile phone with basic features is 9 out of 10. This phenomenon is important, compared with 'digital divide' which desktop PC has caused and especially compared with problem of media possession rate. If mobile cyber public sphere is put into action, quality of interaction would be enhanced because mobile phone is more generalized to individuals with abilities and various backgrounds than desktop PC.

Table.2 The rate of mobile device possession with different levels of age and sex (Double answered, unit: %)

	Mobile phone	PDA, Smart phone	Portable game player	PMP	Navigation system	Electronic dictionary	Laptop PC	HSDPA
Male	97.8	3.2	8.3	4.9	5.3	3.6	19.4	3.1
Female	97.4	1.5	6.9	4.2	2.4	2.0	13.0	1.3
12 to 19	94.0	2.4	19.1	9.8	1.2	4.5	11.7	2.0
twenties.	98.7	4.1	9.1	8.0	5.7	5.4	25.7	4.1
Thirties	98.9	3.2	6.8	3.3	6.6	2.6	21.0	3.0
Forties	98.8	1.2	3.9	2.7	3.2	1.2	12.9	1.3
Fifties	96.2	0.7	1.6	0.2	1.4	0.8	7.5	0.4

Along with 'Possession of media', mobile phone also hold a dominant position in terms of 'attitude toward use of media'. While desktop PC requires complicated adjustment for its numerous functions, mobile is rather easy to handle because the attempts to enhance accessibility have been made by device manufacturers depending on specific group of users. Moreover, as mobile has become an inseparable measure of communication these days, people tend to use it voluntarily and actively, which could be supported by figures in Table. 2. The rate of mobile phone possession is about 95% regardless of sex and age. This tendency leads to improvement of 'media-competence' and it can finally lead to improvement of participation in cyber public sphere

5. Institutional possibility of mobile cyber public sphere
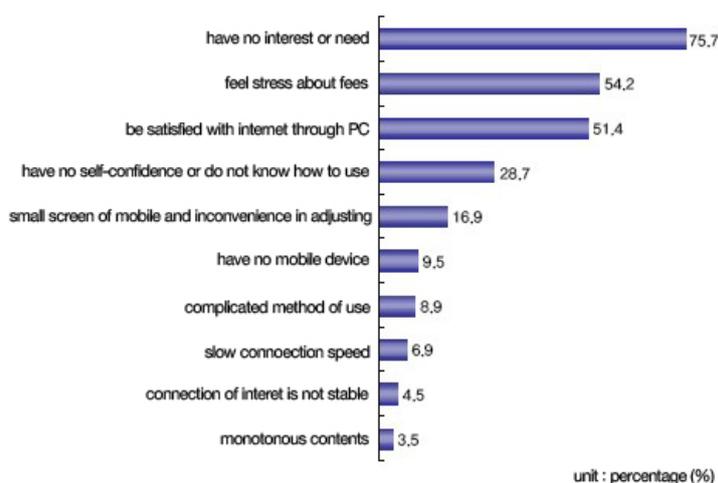

Figure.3 Reasons why they do not use wireless internet

It is still not easy to trigger active participation in mobile cyber public sphere despite relief of 'digital divide'. There are some reasons as shown in Figure. 3: (1) to have no interest or need(75.7%), (2) to feel stress about fees(54.2%), (3) to be satisfied with internet through PC(51.4%). According to first and third one, it is required to make people aware of necessity of mobile public sphere and to organize public sphere so that it gets suit for

mobile environment. Second one shows that it is important task to transform wireless internet into universal service in order to realize mobile public sphere. Among those reasons, high fee is top priority to be dealt with, because it blocks up chance of access to wireless internet, which is one of the first fundamental steps for developing mobile public sphere. Therefore, we will cover whether universal service is realizable or not by now.

Universal service is one that nation can use with proper fees regardless of when and where, which includes financial support for specific classes and nation-wide service including remote places. According to the law for telecommunication business, universal service should be established out of regard for (1) how much IT develops, (2) how much telecommunication service is popularized, (3) public returns and safety, (4) promoting social welfare, and (5) promoting an information-oriented society, which means that universal service could be applied to new field as long as it fits institutional condition.[8] Does wireless internet have possibility to become universal service? Each condition will be examined to know how much mobile phone satisfies them.

5.1 How much IT develops

This is for evaluating whether relevant technology matures sufficiently. Today, domestic wireless internet is represented by CDMA2000-1x and CDMA2000-1x EV/DO and data have been given more weight than voice. Features of these technologies are able to suggest service that is not any different from ADSL's. It could be rather better than ADSL, because it has mobility as unique and powerful feature. Considering that ADSL is wired internet technology which has been already involved in universal service, wireless internet is also well qualified to provide universal service.

5.2 How much telecommunication service is popularized

This section is a standard that examines whether technology is popularized sufficiently and imperative at the same time.[8] The number of mobile phone subscriber records significantly high figures. However, this viewpoint is incomplete basis due to diverse characteristics of each service. Rather than that, it would be a better way to analyze wireless internet on the basis of diffusion rate which consists of diffusion rate per family and diffusion rate in every 100 people. Compared with telephone in 2003, wireless internet is superior to telephone in both indexes ; Wireless internet records 70% in diffusion rate in every 100 people, while telephone records 50%. And wireless internet records 219% in diffusion rate per family, while telephone records 152%.[1]

5.3 Public returns, safety and promoting social welfare

'Public returns and safety' means that technology minimizes financial damage and protects physical safety in case of disasters. And 'promoting social welfare' means overall increase of social welfare based on service generalization.[8] For example, mobile phone users can obtain information about various disasters in advance using urgent alert system, so that they reduce damage or injury. However, regional inequality about telecommunication service is interfering with effective offers of this service. In this sense, by making wireless internet universal service, It can provide people from remote place with equal opportunity about service and public safety.

5.4 Promoting an information-oriented society

Thanks to universal service, users who have been involved in regional inequality will be able to attain opportunity to use service under the same condition of other users and digital divide will be weakened.

6. Conclusion

In this study, mobile phone was able to find itself eligible to become a platform of cyber public sphere on the basis of three idea. Firstly, mobile phone was evaluated as the most important tool of social communication due to mobility and individuality. Secondly, mobile is superior to desktop PC in terms of platform of cyber public sphere because mobile phone is more generalized to individuals, which implies important aspect of Habermas' public sphere. Finally, universal service, which is required to vitalize participation for public matters, could become realized on the basis of institution.

What makes this study worthy is its initial attempt to think mobile as a place where deliberative democracy could be made. This idea is in a fair way to succeed due to technological features of mobile phone. However, we should keep reminding ourselves of importance of social context and individuals, which means that matured endeavor for deliberative democracy is always needed. Based on the result of this study, we will be able to design public sphere which are suit for mobile environment.

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