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## Refereed Research Note

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# Revisiting the Hypothesis of the Political Knowledge Gap in the Asian Context

Keywords:

Knowledge gap hypothesis, socioeconomic status, digital divide, inequality, political information, East Asia

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### Abstract

Knowledge and information translate into social power. Lack of knowledge can result in exclusion from social resources, thus leading to a lack of social power and eventually undermining democracy. Previous findings demonstrate that the gap in political knowledge based on socioeconomic status (SES) is produced by the difference in newspaper reading between classes. Some findings have indicated that the Internet is reproducing the existing patterns of political communication, further increasing the gap between social classes. Although these results have been extensively confirmed outside Asia, the cultural context of Asian countries can often be sufficiently distinctive to differ from tendencies in other parts of the world concerning the social context of media use. This study examines whether different forms of news media function to increase the gap in political knowledge between socioeconomic classes in East Asia. In particular, given the significant rise in the number of Asians who rely on the Internet for political information, we focus on the effect of the use of Internet on the knowledge gap between socioeconomic levels. We find that Internet use appears to significantly increase SES-based gaps in political knowledge in Japan, but not Korea.

## 1. Introduction

The Internet continues to engender new forms of communication that are significantly altering the contours of the social landscape for individuals with ample access to information resources (Castells, 2000). In the context of political education, the Internet is seen to offer opportunities to learn information beyond what is already available in other media (Tewksbury, 2003). Political information from the Internet gives citizens a platform to explore the views of organizations whose opinions and goals do not conform to those expressed by the mainstream media industry. Furthermore, these organizations' perspectives can be published and transmitted without requiring support from the government or a commercial entity. However, although much scholarship on the Internet touts this somewhat utopian view of the Internet's benefits, many economically underprivileged people remain excluded from these new media resources, because they do not enjoy consistent, let alone equal, access to information technologies (Van Dijk, 2005; DiMaggio et al., 2004; Hargittai, 2008; Hargittai & Walejko, 2008). Thus, attention must be paid to the ways in which the Internet can produce and reinforce knowledge gaps.

Research on knowledge gaps suggests that segments of the population with higher socioeconomic status (SES) acquire media-transmitted information at a faster rate than lower-SES segments (Tichenor, Donohue, & Olien, 1970). The media, therefore, may function to increase societal gaps in various forms of knowledge, including knowledge about politics.

On the other hand, some researchers (Kwak, 1999; Eveland & Scheufele, 2000; Jerit, Barabas, & Bolsen, 2006) argue that news media can either

increase or decrease knowledge gaps, depending upon the medium involved (e.g., newspapers versus TV news).

Here, we need to recognize that digital inequality does not entail simply a dichotomy of access versus no access (Robinson, 2008), but rather involves the degree to which people can access various and complex levels and forms of information created by information technology. Does the Internet reduce the gap by making political information more available, accessible, and easier to follow, particularly among the less-educated lower classes (Anderson, Bikson, Law, & Mitchell, 1995)? Or, on the other hand, do people in the upper classes surf the Internet more often and use it more effectively, further widening the gap between the information-rich and information-poor (DiMaggio & Hargittai, 2001)? The present study addresses this issue in detail, looking at whether each form of news media functions to widen or narrow the SES-based gap in political knowledge. In addition, this study analyzes the effect of Internet use as a source of political information, looking at whether the Internet may contribute to political learning beyond the function of traditional news media.

Although the knowledge gap phenomenon most likely exists around the world, most research on it has taken place in the United States. Japan and South Korea offer suitable settings to examine whether the knowledge gap hypothesis can be applied to other cultural areas with different political and cultural traditions. These two countries are also among the most wired nations in the world, thus providing a great opportunity to test the effects of Internet use.

## 2. Literature review

### (1) The Knowledge Gap Hypothesis and the exposure of News media

According to the knowledge gap hypothesis (Tichenor et al., 1970), mass media function to expand, rather than narrow, the gap in knowledge between social classes. As the infusion of mass media information into a social system increases, the segments of the population with higher SES tend to acquire this information at a faster rate than lower-SES segments, so that the gap in knowledge between these segments tends to increase (Tichenor et al., 1970, pp. 159-160). This means that people with higher SES tend to be more able to acquire information, leading to an increasing division of society into two groups: better-educated people who know more about most things, and those with low levels of education who know less.

There are several reasons why the predicted knowledge gap should appear and widen with increasing levels of media input. One factor is the difference between social classes with regard to their use of media. In general, the upper classes use the media more often for information, therefore gaining greater knowledge (Tichenor et al., 1970). People in the upper classes have a greater stake in what happens in the economy and politics, and they are thus more motivated to become well informed in the first place (Eveland & Scheufele, 2000; Moore, 1987). Most print media sources, where much of the available information about public affairs and science appears, are geared toward the tastes of the upper and middle classes, because these are the key customers of advertisers (Donohue, Tichenor, & Olien, 1986). Over time, this difference in media use results in an increasing

gap in knowledge. News media, therefore, may mediate the well-supported link between SES and knowledge of politics (Scheufele, Shanahan, & Kim, 2002). In other words, the upper classes are more politically knowledgeable largely because they use the news media more often and in different ways, thus acquiring more information about public affairs.

### (2) SES and the Knowledge Gap

The knowledge gap hypothesis might be expressed operationally in at least two different forms. One would expect the knowledge gap to be especially prominent when one or more of the factors theorized as contributing to it are operative. Tichenor et al. (1970) discussed five potential factors that could account for the increase in the size of knowledge gaps due to the input of media information. Four of these factors are the differences between high- and low-SES groups in (a) relevant interpersonal contacts, (b) communication skills, (c) prior knowledge, and (d) selective exposure, acceptance, and retention. To the extent that these four factors are engaged; the gap should widen as the flow of mass media information continues (Tichenor et al., 1970). Tichenor et al. also discussed the nature of the media system itself as a fifth factor potentially contributing to increasing the knowledge gaps between high- and low-SES segments of society.

The role of relevant interpersonal contacts in increasing gaps would be to allow people of higher SES to engage in conversations with others who are knowledgeable about important topics in the news. Higher levels of education are generally associated with a broader sphere of everyday activity, a greater number of reference groups, and more interpersonal contacts, all of which increase the likelihood of discussing public

affairs topics with others. These conversations could provide additional opportunities for learning beyond direct media exposure. Also, high-SES individuals could be more motivated to seek out information if they believed that it would be a topic of conversation among their friends and neighbors (Eveland & Scheufele, 2000).

Differences in communication skills, and in information processing ability more generally, between high- and low-education groups represent a key cognitive explanation for increasing knowledge gaps. People with a higher level of formal education have had more exposure to the comprehension abilities necessary to acquire public affairs or science knowledge and integrate that information. They are thus likely to have better reading ability and to be more capable of selecting and storing key points of information from a given news story. They are also more likely to engage in elaborative processing of mediated information, which is a key determinant of learning identified by psychologists and educational researchers (Eveland & Scheufele, 2000).

A third factor contributing to knowledge gaps is the impact of prior knowledge resulting from previous exposure to the topic through mass media or from formal education itself. Persons who are already better informed are more likely to be aware of a topic when it appears in the mass media and are better prepared to understand it. Prior knowledge has been shown to facilitate the processing and recall of new information (e.g., Rhee & Cappella, 1997).

Differences in selective exposure, acceptance, and retention depending on education level also suggest a gap in the use of news media information by people of low SES. When lower-status individuals do use news media, they often

pay attention to different types of information than those of high SES. Therefore, for instance, those of low SES are more likely to focus on the sports section of a newspaper, whereas those of high SES are more likely to pay attention to the news and analysis pages (Newspaper Association of America, 1998). It might make sense to assume that those with greater existing knowledge would gain more information from any given media source, thereby further widening the knowledge gap.

### (3) Television Viewing, Political Learning, and Gaps in Political Knowledge

Acquisition of political knowledge from the mass media is moderated by social status, particularly by education level. When exposed to the same information in the media, persons with higher education gain knowledge more effectively, so that the initial gap between classes increases even further. The knowledge gap hypothesis thus appears to be a fundamental explanation for the mass media's apparent failure to inform all of the public (Tichenor et al. 1970).

Researchers have argued that viewers of TV news are often passive and unmotivated and thus may not learn as much from the programs as do self-selected and motivated newspaper readers (Robinson & Levy, 1986). Moreover, as Blumberg suggests that although television is not expected to influence the uninterested more strongly than the interested, the political coverage of television may be absorbed more readily by more interested viewers. However, they may also be harder to persuade (Blumberg, 1970). In contrast, other researchers have in fact reported significant learning from TV news (Garramone, 1983; Zhao & Chaffee, 1995; Eveland & Scheufele, 2000). As research on passive learning suggests (Krugman

& Hartley, 1970) that even unmotivated exposure to TV news seems to produce meaningful learning (Graber, 1990).

As for Internet use, results are varied as to whether its learning effects can be equivalent to those derived from using traditional news media. Certainly, Internet users can obtain essentially unlimited information about politics with relatively little effort, enabling them to investigate important issues in much greater depth (Bimber, 2001). As Nisbet and Scheufele (2004) point out, however, availability of information does not always lead to greater use or understanding. DiMaggio and Hargittai (2001) also note that the Internet is a supplementary medium through which traditional news organizations redistribute their information. Therefore, given that most users of online political information are also heavy users of traditional news media (Althaus & Tewksbury, 2000), it is somewhat questionable how much learning may occur beyond what is already obtained from newspapers and television news. Nonetheless, a few studies have reported significant learning from the Internet, even after controlling for newspaper reading and television viewing (Norris, 2002; Norris & Sanders, 2003).

Newspapers are known as a major source of information about current issues (Stamm, Johnson, & Martin, 1997; Berkowitz & Pritchard, 1989), election candidates (Kim et al., 2005), and political parties (Chaffee, Zhao, & Leshner, 1994). Not surprisingly, research has firmly established that one's education level moderates how much one can learn from reading a newspaper. In general, highly educated readers tend to gain more knowledge from news articles, thus increasing the gap between socioeconomic classes (Tichenor et al., 1970; Gaziano, 1984; Jerit et al., 2006).

Some researchers found that television could function as a "knowledge leveler" (Neuman, 1976). Because television presents information in cognitively less demanding ways, even those with weaker cognitive skills and less prior knowledge may gain significant information (Neuman, Just, & Crigler, 1992; Prior, 2005). Sophisticated and educated viewers, on the other hand, may find little to learn beyond what they already know because the hard news content of television is so limited and superficial (Eveland & Scheufele, 2000; Jerit et al., 2006). Consequently, television may actually decrease the knowledge gap between classes. Studies have provided support for this knowledge-leveling function, showing that the gap between high- and low-education groups is smaller among heavy viewers of TV news than among light viewers (Kwak, 1999; Eveland & Scheufele, 2000).

Since the Internet incorporates video, audio, graphic, and text features in a mixed arrangement, the format of its journalistic and partisan information sources is in general closer to that of text-based newspapers than to visual media like television (Kim, 2008, Norris & Sanders, 2003). Effective online information seeking requires such skills as purposeful searching, evaluation of source credibility, construction of interpretative frames, and a certain level of literacy, all of which are also prerequisites for reading a newspaper (Bonfadelli, 2002). It is therefore reasonable to expect that people with higher education will gain greater knowledge from the Internet, resulting in a larger knowledge gap between classes. That is, the gap between high- and low-education groups should be larger among heavy users of political websites than among light users.

However, most Internet users nowadays get their news mainly via portal sites that integrate

and transmit various categories and aspects of social affairs, including but not limited to political aspects. Thus, we might assume that in fact the politically uninvolved may indeed happen to encounter political information while using the Internet. That is, due to the mixed-content nature of portal sites, users cannot avoid exposure to persuasive messages. This fact could suggest that people of low SES could learn new information while on the Internet that would help them catch up with high-SES people in terms of political knowledge.

### 3. Research Hypotheses

The first step in testing the knowledge gap is to examine whether there is indeed a gap in knowledge between social classes at all. The first hypothesis holds that people of higher SES—typically operationalized by education level—are more politically knowledgeable than their less-educated counterparts.

H1: People with higher education will be more knowledgeable about politics than the less educated.

The next two hypotheses examine the extent to which news media can contribute to producing knowledge gaps. It is hypothesized that people with higher levels of education will be more likely to use news media, in turn allowing them to acquire greater knowledge and creating a widening gap between social classes. If we are sure that a knowledge gap exists, then we should inspect first whether there is a significant difference between classes in their news media use and whether there is a relationship between news media use and political knowledge.

H2: Highly educated citizens will use news media (newspapers, television news, and political

websites) more often than those of low SES.

H3: Heavy users of news media will be more knowledgeable about politics than light users.

Finally, the next three hypotheses examine whether the degree of political learning from news media is moderated by education level. Here, it is suggested that newspapers increase the knowledge gap whereas television and the Internet function as knowledge levelers in the two countries examined in this paper.

H4: The knowledge gap between high- and low-education groups will be smaller among heavy viewers of television news than among light viewers.

H5: The knowledge gap between high- and low-education groups will be smaller among heavy users of political websites than among light users.

H6: The knowledge gap between high- and low-education groups will be larger among heavy users of a newspaper than among light users.

### 4. Methods

Immediately following the 2009 lower house election in Japan, we conducted a random-sample survey in two East Asian capital cities. Data were collected from respondents in Seoul (N=700) and Tokyo (N=838). Sampling was conducted in different ways in each country. In Japan, respondents were randomly selected by systematic sampling from official voter registration lists in 23 wards provided by the Tokyo Election Administration Commission. A questionnaire was sent to respondents aged 20 to 69 who were eligible to vote. It asked them to answer the questions and return the questionnaire by mail. The response rate in Japan was 27.9%.

The survey in Japan was conducted between October 16 and November 1, 2009.

As for the survey in Korea, also using systematic sampling, trained surveyors visited several households (addresses) in each allocated ward and obtained responses via face-to-face interviews. The response rate in Korea was 19.6%. These respondents were also interviewed between 1 October 16 and November 1, 2009.

Even though the capital cities of Japan and Korea may represent a typical urban lifestyle, the highly developed nature of these Asian cities makes it hard to generalize the survey findings beyond the specific locations. For example, media use may be higher in these cities than in other parts of the two countries.

The main items contained in the surveys are described below.

**Political Knowledge.** Traditionally, researchers have categorized political knowledge as either general or domain-specific (Delli Carpini & Keeter, 1992). In this study, nine country-specific questions were used to assess respondents' knowledge of politics in Japan or Korea. These questions can be divided into two categories of political knowledge: issue knowledge and civic knowledge.

The first six questions covered current issues that have been controversial in recent elections. These six items were then combined into a single measure representing knowledge pertaining to current issues ( $\alpha=0.57$ ,  $N=805$ ,  $M=4.30$ ,  $SD=1.19$  in Japan;  $\alpha=.59$ ,  $N=700$ ,  $M=2.62$ ,  $SD=1.54$  in Korea).

The other three questions measured traditional civic knowledge (Delli Carpini & Keeter, 1992), i.e., respondents' awareness of political institutions and processes, rather than domain-specific knowledge of particular issues and policies (Jerit et al., 2006).

These three items were also combined into a single measure of civic knowledge ( $\alpha=0.23$ ,  $N=800$ ,  $M=1.33$ ,  $SD=0.93$  in Japan;  $\alpha=0.33$ ,  $N=700$ ,  $M=1.15$ ,  $SD=0.88$  in Korea). The actual wording of the questions is provided in the appendix.

**Socioeconomic factors.** In this paper, we use level of education as our socioeconomic yardstick. Education was measured by asking respondents to indicate the highest level of schooling that they had completed or in which they were currently enrolled. The question was asked differently according to the official institutional education system of each respective country. Japanese respondents could choose from the following options: 1 for completing education through junior high school; 2 for high school; 3 for junior college, professional school, or old-education-system high school; 4 for college, university or graduate school ( $N=829$ ,  $M=3.23$ ,  $SD=0.88$ ). Korean respondents were asked to choose either 1 for junior high school or less, 2 for a high school degree, 3 if attending college or university, 4 for a college or university degree, 5 if currently in graduate school, or 6 if they had completed graduate school ( $N=700$ ,  $M=3.69$ ,  $SD=1.13$  in Korea).

**Newspaper reading.** Newspaper reading was measured by asking respondents, on a five-point scale, how often (0=never; 4=almost every day) they read nationwide newspapers, both in Japan and in Korea ( $N=827$ ,  $M=2.71$ ,  $SD=1.62$  in Japan;  $N=700$ ,  $M=2.91$ ,  $SD=1.28$  in Korea).

**Television news viewing.** The styles of television news differ between the two countries. In Japan, TV news shows are formatted so that issues and concepts can be easily understood, using visual aids and extensive explanations of key points. In contrast, Korea adheres to a more traditional news broadcasting format in which



news is reported matter-of-factly. Television news viewing was measured by asking respondents, on a five-point scale, how often (0=never; 4=almost every day) they watch the news on TV. Japanese TV news viewing was measured using two items ( $\alpha=0.53$ ), on NHK (N=832, M=2.90, SD=1.34) and commercial TV news (N=835, M=3.33, SD = 1.01), respectively. The Korean survey contained three separate questions ( $\alpha=0.75$ ), asking about viewing newscasts on KBS (N=700, M=3.09, SD=0.95), MBC (N=700, M=3.03, SD=1.04), and SBS (N=700, M=2.80, SD=1.05).

Internet use for political information. Internet use for acquiring political information was measured by asking respondents in both countries, on the same five-point scale, how often(0=never; 4=almost every day) they used online news sites about politics, politicians or elections (N=821, M=1.91, SD=1.61 in Japan; N=700, M=2.30, SD=1.38 in Korea).

As shown in Table 1, the Korean respondents read the newspaper and used the Internet for political information more frequently than the Japanese respondents. On the other hand, the Japanese participants watched television significantly more frequently than the Koreans.

## 5. Results

### (1) Political knowledge, Media usage and SES

First, the results in both countries indicated that people with higher SES (as operationalized by higher levels of education) scored higher in (1) issue knowledge and (2) civic knowledge than their less-educated counterparts. Thus, H1 was clearly supported by this study (Table 2).

As for H2, the study found that lower-educated people in the Japanese survey are heavier viewers of television, but this pattern was not evident in the Korean sample (Table 3). Conversely, with regard to newspaper reading, there was a statistically meaningful association with SES in Korea, but not Japan. Lastly, there was a significant difference in Internet use for political information between classes in Korea, with the highly educated using political websites considerably more often than the less educated. Similarly, lower-educated people in Japan were significantly less active in terms of seeking political information through the Internet.

Our international survey thus provides empirical evidence of a relationship between social status and the amount of exposure to political information transmitted by various news media.

Table 1. Media Exposure of Japanese and Korean Respondents

	Japan	Korea	<i>t</i>
Newspaper reading	2.71 (1.62) (N=827)	2.91 (1.28) (N=700)	-2.58 **
TV news viewing	3.11 (0.98) (N=829)	2.97 (0.83) (N=700)	3.05 **
Internet use for political info	1.91 (1.61) (N=821)	2.30 (1.38) (N=700)	-5.09 ***

\*\*\*:p<.001, \*\*:p<.01



Table 2. Differences between High &amp; Low SES in Political Knowledge

	Socioeconomic level (Japan)			Socioeconomic level (Korea)		
	High	Low	t	High	Low	t
Soft knowledge	4.83 (1.25) (N=382)	4.74 (1.33) (N=427)	-1.04	3.97 (1.63) (N=548)	3.28 (1.87) (N=152)	-4.12 ***
Issue knowledge	4.40 (1.06) (N=379)	4.21 (1.30) (N=418)	2.28 *	2.73 (1.52) (N=548)	2.20 (1.55) (N=152)	3.82 ***
Civic knowledge	1.53 (0.89) (N=378)	1.13 (0.92) (N=415)	6.16 ***	1.22 (0.89) (N=548)	0.88 (0.82) (N=152)	4.27 ***

Note: Entries are mean scores with standard deviation in parentheses. High education: University students and University  
 \*\*\*:p<.001, \*\*:p<.01, \*:p<.05, +:p<.10

Table 3. Differences between High &amp; Low SES in Media Use

	Socioeconomic level (Japan)			Socioeconomic level (Korea)		
	High	Low	t	High	Low	t
Newspaper reading	2.76 (1.57) (N=389)	2.67 (1.67) (N=432)	0.75	2.97 (1.26) (N=548)	2.68 (1.32) (N=152)	2.44 *
TV news viewing	3.00 (1.04) (N=389)	3.22 (0.91) (N=432)	-3.19 **	2.98 (0.81) (N=548)	2.95 (0.91) (N=152)	0.40
Internet use for political	2.38 (1.50) (N=385)	1.43 (1.59) (N=428)	8.78 ***	2.40 (1.34) (N=548)	1.95 (1.45) (N=152)	3.47 ***

Note: Entries are mean scores with standard deviation in parentheses. High education: University students and University diploma or more.  
 \*\*\*:p<.001, \*\*:p<.01, \*:p<.05

## (2) Interaction effects of News Media use and SES

We also hypothesized that exposure to media would be positively related to higher levels of knowledge. We ran a regression model that added three demographic variables (age, gender, and socioeconomic level) and three media exposure variables (newspaper reading, television news viewing, and Internet use for political information) as predictors. We found a significant relationship between exposure to all three types of media-newspaper reading, TV news viewing and Internet news-and issue knowledge in Japan (Table 4 & Fig 1). In Korea, only TV viewing did not show a significant relationship with issue knowledge (Table 5 & Fig 2).

The Internet has contributed significantly toward the acquisition of civic knowledge in both Japan and Korea. Overall, there was a significant

difference between heavy and light users of the Internet, with heavy users demonstrating greater issue and civic knowledge in both countries.

Television news viewing had reverse impacts in the two countries. It was positively associated with the acquisition of civic knowledge in Japan, but was a negative factor in Korea. We did not conduct further analysis into this difference, but it is notable that television can be a two-edged media source with regard to helping viewers to understand civic matters.

To examine how media consumption was affected by education level, we added three interactional variables (newspaper reading x SES, TV news viewing x SES, and Internet use for political information x SES) and ran a regression model (Model 2 in Tables 4 and 5). To avoid multicollinearity, standardization was conducted just before we crossed each interactional variable. The results of the regression model show the

Table 4. Predictors of Political Knowledge in Linear Regression (Japan)

Japan	Issue Knowledge (N=768)		Civic Knowledge (N=759)	
	Model1	Model2	Model1	Model2
Age	0.202 ***	0.194 ***	0.128 **	0.122 **
Gender (female)	-0.112 **	-0.104 **	-0.122 ***	-0.117 **
Socioeconomic status	0.059	0.070 +	0.169 ***	0.175 ***
Newspaper reading	0.115 **	0.116 **	0.067 +	0.067 +
Television news viewing	0.178 ***	0.194 ***	0.085 *	0.103 *
Internet use for political information	0.094 *	0.089 *	0.109 **	0.107 **
Newspaper reading x SES		-0.057		-0.032
Television news viewing x SES		-0.024		-0.044
Internet use for political info x SES		<b>0.088 **</b>		0.033
R <sup>2</sup> (Adjusted)	0.154	0.165	0.097	0.099
R <sup>2</sup> (Change)	0.161	0.013	0.105	0.005
F (Change)	24.518 ***	4.090 **	14.835 ***	1.500

Note : Coefficients are standardized regression weights.

\*\*\*:p<.001, \*\*:p<.01, \*:p<.05, +:p<.10

Table 5. Predictors of Political Knowledge in Linear Regression (Korea)

Korea	Issue Knowledge (N=700)		Civic Knowledge (N=700)	
	Model1	Model2	Model1	Model2
Age	0.223 ***	0.228 ***	0.196 ***	0.197 ***
Gender (female)	-0.197 ***	-0.195 ***	-0.107 **	-0.107 **
Socioeconomic status	0.115 **	0.117 **	0.173 ***	0.172 ***
Newspaper reading	0.114 **	0.112 **	0.019	0.018
Television news viewing	0.001	-0.004	-0.087 *	-0.087 *
Internet use for political information	0.110 **	0.105 **	0.101 **	0.101 **
Newspaper reading x SES		-0.010		0.004
Television news viewing x SES		-0.025		0.010
Internet use for political info x SES		-0.045		-0.011
R <sup>2</sup> (Adjusted)	0.148	0.148	0.081	0.077
R <sup>2</sup> (Change)	0.155	0.003	0.089	0.000
F (Change)	21.240 ***	0.882	11.243 ***	0.052

Note : Coefficients are standardized regression weights.

\*\*\*:p<.001, \*\*:p<.01, \*:p<.05, +:p<.10

interaction effects of news media use and SES on two forms of political knowledge.

As shown in Figure 1, when exposed to issue-related political information on the Internet, people with higher education tend to learn a lot more, conspicuously widening the gap between classes in Japan. However, Table 4 shows that the interaction was statistically significant only for issue knowledge in Japan. For civic knowledge in the two countries, it was not significant. Thus, H5 was partially supported only in Japan, where the

findings indicated that the knowledge gap is greater among heavy Internet users. No significant interaction effect was found for TV news and newspaper reading. As shown in Table 4, people with higher education were not significantly different from the less educated as to how much they learned from TV news. The interaction was not statistically significant for either issue or civic knowledge. H4 and H6, therefore, were not supported in either country.

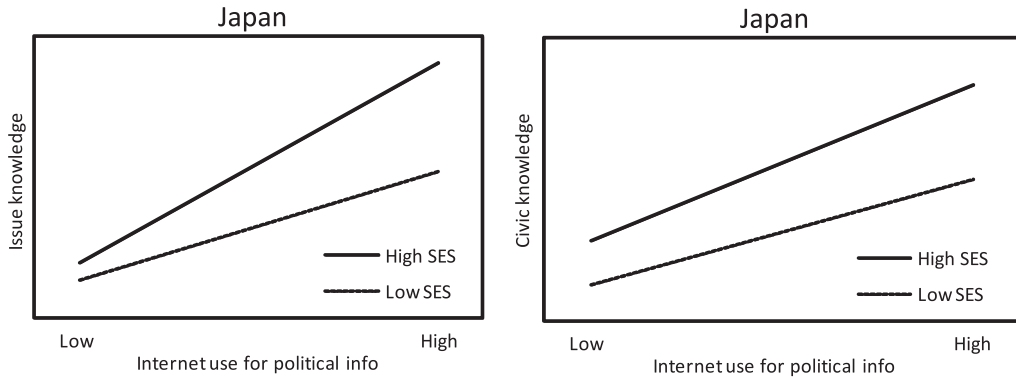


Fig 1. Interaction effects of SES & Internet use (Japan)

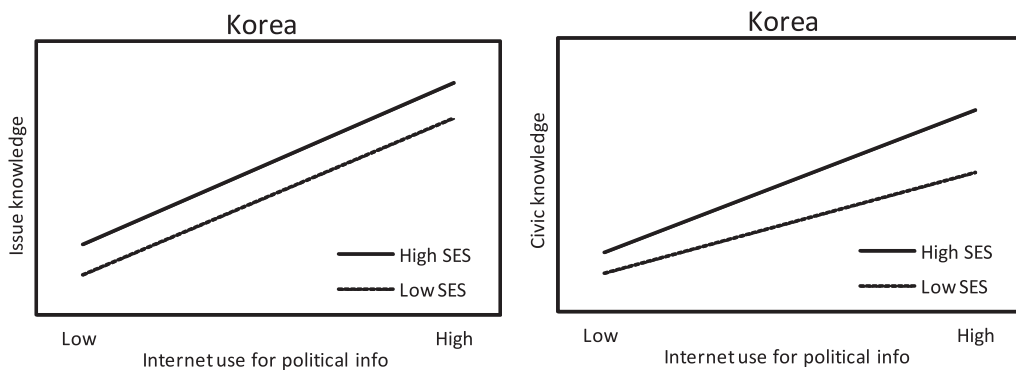


Fig 2. Interaction effects of SES & Internet use (Korea)

## 6. Conclusion

We found that people with high SES are indeed more knowledgeable about politics than the less educated. This difference can be explained by their greater tendency to read newspapers and access the Internet. This result supports the contention of Chaffee and Frank (1996) that newspapers function as the primary source of political information. In Japan, highly educated people tend to watch less TV news than lower-educated people do. However, television viewing also has a positive association with education. The more people consume television media, the more knowledgeable they are about politics.

In addition, this study examined whether different forms of news media functioned to

increase or decrease the gap in political knowledge between socioeconomic classes. In particular, differences in Internet use and SES were indeed correlated with differences in political knowledge in this study, but the degree to which Internet use widened the knowledge gap varied between the two countries, being statistically significant in Japan but not in Korea. Notably, this distinction remained even when demographics and individual forms of media were included in the model.

Summarizing the main results of our survey, first, we found that Japanese people with higher education access the Internet to get political news more often than the less educated and thus learn more about political issues. Even when exposed to the same information, the highly

educated upper classes learn more effectively than the less educated, further increasing the gap between classes. A similar tendency was indicated in Korea, as shown in Table 3.

Second, our findings show that Internet use is a more powerful contributor than newspaper readership to the widening knowledge gap between the upper and lower classes in Japan. The results suggest that the upper classes in Japan are more knowledgeable largely because they get more political information via the Internet. This finding supports the idea that Internet news reading might mediate a link between SES and knowledge of public affairs. As previous researches have pointed out, the effect of SES on political knowledge seems to depend on a host of communication variables, such as use of the Internet or of news media in general (Verba et al., 1995; Scheufele et al., 2002).

We found that Koreans in general tend to access political information on the Internet more often than the Japanese, as shown in Table 1. In addition, we noted that use of the Internet to obtain political information neither widened nor narrowed the gap between educational levels in the Korean sample. However, we should also consider the fact that the turnover of information in online news media is such that before a low-SES viewer can learn and understand existing issues, new issues have already begun to take their place (Tichenor et al., 1970), thus in fact negating any positive learning opportunities.

The inconsistencies between the two countries are of particular being focused on. The Korean data in this study indicated that it is possible for low and high SES groups to learn approximately the same amount of knowledge about politics via the Internet. But this internet effect was not indexed in Japanese situation. We could suggest

that the Internet has a “trapping” effect (Shoenbach & Lauf, 2004), which earlier researchers have proposed mainly with regard to the effect of television. The trapping effect refers to the presumed impact of a medium on people who are not very interested in politics. We can also presume that the theoretical frameworks of “incident learning” (Culbertson & Stempel, 1986), “passive learning” (Krugman & Hartley, 1970), and “peripheral routes” to persuasion (Petty & Cacioppo, 1981) may apply to Internet users. That is, all these frameworks assume that only if it is sufficiently abundant, uninterested or relatively uninvolved people can learn from the Internet, even if they were not initially looking for that information.

One limitation of our research lies in the lack of clarity regarding the differing ways in which different cultures interact with online news media. There are many ways in which a consumer can interact with specific content on the Internet, ranging from standard news articles to political discussion bulletin boards. It has been shown, for example, that with regard to their Internet behavior, Korean media consumers are more active and more willing to participate in political discussions or produce political content online than Japanese consumers (Kim, 2009). The resulting abundance of online political information could cause Koreans of lower SES to be more captivated by political information and to understand political matters more readily than their Japanese counterparts.

In future research, we hope to verify the specific conditions required to reinforce political learning, especially among less-educated persons, so that we can further explore the affirmative function of the Internet as a political knowledge leveler.

References

- Althaus, S.L. & Tewksbury, D. (2000) "Patterns of internet and traditional news media use in a networked community," *Political Communication*, vol. 17, no. 1, pp. 21-45.
- Anderson, R.H., Bikson, T.K., Law, S.A. & Mitchell, B. M. (1995) "Universal access to email feasibility and societal implications," Rand, Santa Monica.
- Berkowitz, D. & Pritchard, D. (1989) "Political knowledge and communication resources," *Journalism Quarterly*, vol. 66, no. 3, pp. 697-701.
- Bimber, B. (2001) "Information and political engagement in America: Search for the effects of information technology at the individual level," *Political Research Quarterly*, vol. 54, pp. 53-67.
- Blumber, J.G. (1970) "The political effects of television," in *The political effects of television*, ed. J.D. Hallora, Panther Books, London, pp. 68-104.
- Castells, M. (2000) *The Rise of the Network Society: Economy, Society and Culture*, Blackwell, Malden.
- Chaffee, S.H., Zhao, X. & Leshner, G. (1994) "Political knowledge and the campaign media of 1992," *Communication Research*, vol. 21, no. 3, pp. 305-324.
- Chaffee, S.H. & Frank, S. (1996) "How Americans get political information: Print versus broadcast news," *The Annals of the American Academy of Political and Social Science*, vol. 546, no. 1, pp. 48-58.
- Culbertson, H.M. & Stempel III, G.H. (1986) "How media use and reliance affect knowledge level," *Communication Research*, vol. 13, no. 4, pp. 579-602.
- Delli Carpini, M.X. & Keeter, S. (1992) "The public's knowledge of politics," in *Public opinion, the press, and public policy*, ed. J.D. Kenamer, Praeger, Westport, pp. 19-40.
- DiMaggio, P. & Hargittai, E. (2001) "From the 'digital divide' to 'digital inequality': Studying the internet use as penetration increases," *Centre for Arts and Cultural Policy Studies*, Princeton University, Working Paper #15, Summer 2001.
- DiMaggio, P., Hargittai, E., Celeste, C. & Shafer, S. (2004) "Digital inequality: from unequal access to differentiated use," in *Social Inequality*, ed. K. Neckerman, Russell Sage Foundation, New York, pp. 355-400.
- Donohue, G.A., Tichenor, P.J. & Olien, C.N. (1986) "Metro daily pullback and knowledge gaps: Within and between communities," *Communication Research*, vol. 13, no. 3, pp. 453-471.
- Eveland, W.P. Jr. & Scheufele, D.A. (2000) "Connecting news media use with gaps in knowledge and participation," *Political Communication*, vol. 17, no. 3, pp. 215-237.
- Garramone, G.M. (1983) "TV news and adolescent political socialization," in *Communication Yearbook 7* ed. B. Bostrom, Sage, Beverly Hills, pp. 651-669.
- Gaziano, C. (1984) "Neighborhood newspapers, citizen groups and public affair knowledge gaps," *Journalism Quarterly*, vol. 16, pp. 556-566, 599.
- Graber, D.A. (1990) "Seeing is remembering: How visuals contribute to learning from television news," *Journal of Communication*, vol. 40, no. 3, pp. 134-155.
- Hargittai, E. (2008) "The digital reproduction of inequality," in *Social Stratification*, ed. D. Grusky, Westview Press, Boulder, pp. 936-944.
- Hargittai, E. & Walejko, G. (2008) "The participation divide: content creation and sharing in the digital age," *Information, Communication and Society*, vol. 11, no. 2, pp. 239-256.
- Jerit, J., Barabas, J. & Bolsen, T. (2006) "Citizens, knowledge, and the information environment," *American Journal of Political Science*, vol. 50, no. 2, pp. 266-282.
- Kim, S.-H., Scheufele, D.A. & Shanahan, J. (2005)

- “Who cares about issues? Issue voting and the role of news media during the 2000 U.S. presidential election,” *Journal of Communication*, vol. 55, pp. 103-121.
- Kim, S.-H. (2008) “Testing the Knowledge gap hypothesis in South Korea: Traditional News Media, The Internet, and Political Learning,” *International Journal of Public Opinion Research*, vol. 20, no. 2, pp. 193-210.
- Kim, Sangmi (2009) “The Effects of the Internet on Citizen’s Political Participation: Participative tool on the Internet enhancing the engagement of the vote,” *Japanese Journal of Electoral Studies* (Japanese), vol. 25, no. 1, pp. 74-88.
- Krugman, H.E. & Hartley, E.L. (1970) “Passive learning from television,” *Public Opinion Quarterly*, vol. 34, no. 2, pp. 184-190.
- Kwak, N. (1999) “Revisiting the knowledge gap hypothesis: Education, motivation, and media use,” *Communication Research*, vol. 26, no. 4, pp. 385-413.
- MIC (Ministry of International Affairs and Communication in Japan) (2015) [online] Available at: [http://www.soumu.go.jp/johotsusintokei/statistics/data/160722\\_1.pdf](http://www.soumu.go.jp/johotsusintokei/statistics/data/160722_1.pdf)
- McLeod, D.M. & Perse, E.M. (1994) “Direct and indirect effects of socioeconomic status on public affairs knowledge,” *Journalism Quarterly*, vol. 71, no. 2, pp. 433-442.
- Moore, D.W. (1987) “Political campaigns and the knowledge-gap hypothesis,” *Public Opinion Quarterly*, vol. 51, no. 2, pp. 186-200.
- Neuman, R. (1976) “Patterns of recall among television news viewers,” *Public Opinion Quarterly*, vol. 40, pp. 115-123.
- Neuman, W.R., Just, M.R. & Crigler, A.N. (1992) *Common Knowledge: News and the Construction of Political Meaning*, University Of Chicago Press, Chicago.
- Newspaper Association of America (1998) [online] Available at: <http://www.naa.org/> (30 September 2010).
- Nisbet, M.C. & Scheufele, D.A. (2004) “Political talk as a catalyst for online citizenship,” *Journalism and Mass Communication Quarterly*, vol. 81, no. 4, pp. 877-896.
- Norris, P. (2002) “Tuned out voters? Media impact on campaign learning,” *Ethical Perspectives*, vol. 9, pp. 200-221.
- Norris, P. & Sanders, D. (2003) “Message or medium? Campaign learning during the 2001 British General Election,” *Political Communication*, vol. 20, no. 3, pp. 233-262.
- Petty, R.E. & Cacioppo, J.T. (1981) “Nine second order national elections: A conceptual framework for the analysis of European election results,” *European Journal of Political Research*, vol. 8, no. 1, pp. 3-44.
- Prior, M. (2005) “News vs. Entertainment: How Increasing Media Choice Widens Gaps in Political Knowledge and Turnout,” *American Journal of Political Science*, vol. 49, no. 3, pp. 577-592.
- Rhee, J.W. & Cappella, J.N. (1997) “The role of political sophistication in learning from news: Measuring schema development,” *Communication Research*, vol. 24, no. 3, pp. 197-233.
- Robinson, J.R. & Levy, M. (1986) *The main source: Learning from television news*, Sage, Beverly Hills.
- Robinson, L. (2008) “A taste for the Necessary,” *Information, Communication & Society*, vol. 12, no. 4, pp. 488-507.
- Scheufele, D.A., Shanahan, J. & Kim, S.-H. (2002) “Who cares about local issues? Media influences on local political involvement, issue awareness, and attitude strength,” *Journalism and Mass Communication Quarterly*, vol. 79, pp. 427-444.
- Shoenbach, K. & Lauf, E. (2004) “Another look at the

- ‘trap’ effect of television-and beyond,” *Journal of public opinion Research*, vol. 16, no. 2, pp. 169-182.
- Stamm, K., Johnson, M. & Martin, B. (1997) “Differences among newspapers, television, and radio in their contribution to knowledge of the Contract with America,” *Journalism and Mass Communication Quarterly*, vol. 74, no. 4, pp. 687-702.
- Tewksbury, D. (2003) “What do Americans really want to know? Tracking the behavior of news readers on the Internet,” *Journal of Communication*, vol. 53, no. 4, pp. 694-710.
- Tichenor, P.J., Donohue, G.A. & Olien, C.N. (1970) “Mass media flow and differential growth in knowledge,” *Public Opinion Quarterly*, vol. 34, pp. 159-170.
- Van Dijk, J. (2005) *The Deepening Divide: Inequality in the Information Society*, Sage, Thousand Oaks.
- Verba, S., & Nie, N.H. (1972) *Participation in America: Political democracy and social equality*, Harper & Row, New York.
- Verba, S., Schlozman, K.L. & Brady, H. (1995) *Voice and Equality: Civic Voluntarism in American Politics*, Harvard University Press, Cambridge.
- Zhao, X. & Chaffee, S.H. (1995) “Campaign advertisements versus television as sources of political issue information,” *Public Opinion Quarterly*, vol. 59, pp. 41-65.