Effective Public Policy Delivery System in the Age of Information Overload – The Role of Imagery on Citizen Perception and Compliance of Public Policy

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Effective communication of public policy between citizens and the government is a critical factor of successful public policy implementation. However, in our rapidly changing information environment characterized by information overload and emergence of visual communication such as YouTube, there is a growing need for the public sector to adapt. Traditional ways of government communication such as official documents and public announcements that are typically considered to be overly objective, dispassionate, and lengthy are proving increasingly ineffective where the visual communication with its vivid imagery and emotionally charged appeal is beginning to dominate our information environment and influence general public. Drawing on a case of Mad Cow Disease citizen protest against importing of U.S. beef in South Korea where strong negative imagery against the U.S. beef portrayed by a TV program called, *PD Note*, significantly undermined the government policy, this article suggests that, in our changing information environment, there should be a fundamental transformation in the way communication takes place between citizens and the government toward more active reaching-out and "advertising" of policies. In addition, more element of visual communication should be incorporated in government communication in order to create positive impression and image about government policies. Without such shift, the effectiveness of policy communication will continue to decline in current information environment and government policies may become increasingly vulnerable to negative images portrayed by *policy antagonists* who may more effectively use the power of images to persuade general public.

Key words: Policy delivery system, policy communication and implementation, changing information environment, impact of image and emotion on public policy

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I. Introduction

In 2008, the Republic of Korea—third largest market for U.S. beef—decided to resume its import of U.S. beef after banning it in 2003 amid the concerns of the Mad Cow Disease. The decision had led to large-scale street protests and candlelight vigils amassing over 930,000 citizens and this has become the greatest crisis for the newly inaugurated Lee Myung-Bak administration (MB administration). Citizen participation in the protest was grass-root in nature and government was unable to contain it as more citizens joined the protest, who firmly believed that U.S. beef was tainted with the Mad Cow Disease. The situation worsened until the president Lee made a public apology and his entire cabinet and top civil servants proposed to resign over. The protest subsided and the beef import resumed eventually, however, this has had a lasting effect on the legitimacy and authority of the new administration for years to follow.

While there may be multiple factors that have contributed to the rapid escalation of the issue and distrust about the government and its policy, this article attempts to find an explanation in the mismatch of communication in the way government communicate with citizens and how citizens (general public) communicate and process information. The basic premise underlying this study is that our information and communication environment is changing, inducing individuals to adapt to the new modes of communication, while the government and its mode of communication remains relatively unchanged, creating a mismatch. In addition, the condition of *information overload* is identified as a key attribute that characterize the current information environment which also contribute to the change in our information processing behavior. This includes a shift from *long data* to *short data*, *text data* to *image data*, all geared toward addressing the phenomenon of too much information-information overload.

Such shift in our information environment merits an exploration since effective communication of public policy plays a significant role in the outcomes of government policies. Failure to understand the new information environment and information behaviors of citizens may lead to catastrophic policy failures. The case of Mad Cow Disease protest in South Korea demonstrate how the traditional way of government communication is proving ineffective in the new information environment, when communicating with citizens who are increasingly influenced by image intensive medium of communication.

This paper will first explore the attributes of the changing information environment and discuss how this affects individuals as *information processing units*. The concept of human information processing is introduced and the emergence of the new information processing behaviors is discussed. A number of key attributes of the new informa-

tion processing behaviors and their public policy implications are discussed with the case of Mad Cow Disease turmoil in South Korea.

II. Changing Information Environment

A. Information Overload and Human Information Processing

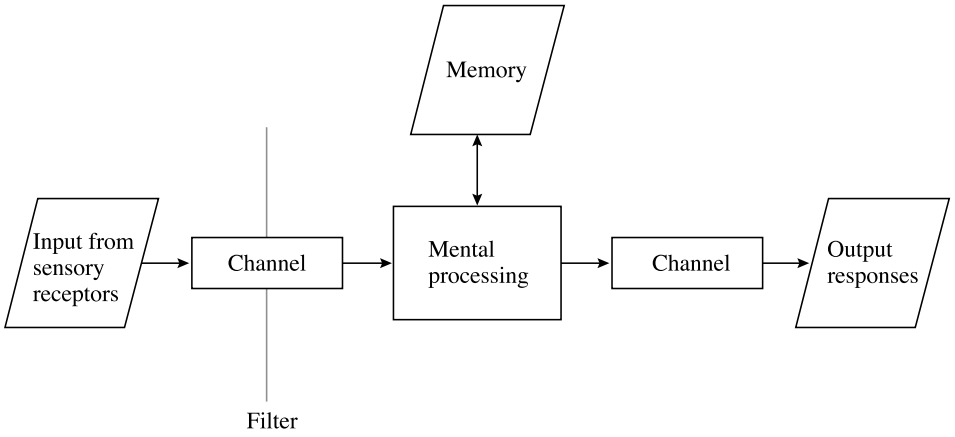
The introduction of Internet has significantly changed the way we produce, search and disseminate information. The ease and efficiency with which information is produced, searched and disseminated has revolutionized our information environment and Internet has experienced significant growth as the number of Internet users[1] have expanded rapidly over time reaching over 2 billion users worldwide. Consequently, Internet has begun to be filled with large amount of information. According to International Data Corporation (IDC, 2003),

> The volume of internet traffic generated by end users worldwide will nearly double annually over the next five years, increasing … to 5,175 petabits per day by the end of 2007. To put these figures into perspective, the entire printed collection of the Library of Congress amounts to only 10 terabytes of information. By 2007, IDC expects Internet users will access, download, and share the information equivalent to the entire Library of Congress more than 64,000 times over, every day.

In a separate report, IDC finds that in 2007, the amount of information created exceeded available storage for the first time and *digital universe* was found to be ten times the size of what it was in 2006, indicating a rapid growth in the amount of information on the Internet (IDC, 2008). In addition, digitizing and disseminating information became easier and more efficient with increasingly powerful digital devices and a surge in the number of mobile phone and Internet users (The Economist, 2010) has contributed to the expansion of the Cyberspace. In addition, rising demand for video and multimedia data has quickly consumed Internet's bandwidth capacity as, for instance, YouTube alone in 2007 took as much bandwidth capacity of the entire Internet in 2000 (Carter, 2008). Moreover, the emergence of Social Networking Service such as Facebook, Twitter, and Instant Messaging has created a new information culture where we are constantly showered with flood of information in addition to already crowded email

1. As of 2012, there are 2,279,709,629 Internet users worldwide. *Source: Internet World Stats*. http://www.internetworldstats.com/list2.htm. Accessed on May 23, 2012.

Figure 1. Human as Information Processor



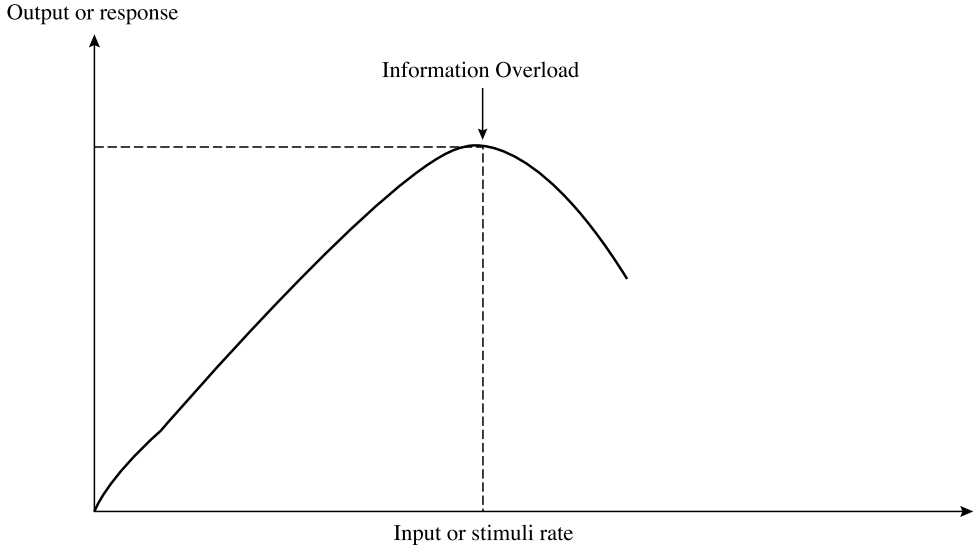
inboxes and web pages (Williams, 2007).

With the rapid growth of information at our disposal, it is becoming increasingly challenging to filter and process all these information in order to locate information that is helpful to our needs. Our information processing capacity is limited, which when faced with enormous amount and choice of information, become less effective in processing information.

As shown in the figure above, Davis and Olson's model (Davis & Olson, 1985) provides a useful framework to illustrate the way people process information. Here, an information processor, an individual, receives information from the environment through their sensory receptors (such as eyes, ears, nose, etc.), send it along to their processing unit (the brain with memory), and produce output responses (decisions and actions). According to Davis and Olson, the capacity of an individual to accept inputs and produce outputs is limited and therefore when such capacity is reached and surpassed, information overload takes place. This consequently reduces the response rate and decreased performance.

Therefore as illustrated below, initially, with increasing input information, the output also rises, however, once it reaches its *Information Overload* level, the output begins to fall as people's information capacity is overwhelmed or congested with too much information. This in turn leads to reduction in the quality of decision output (Chewning Jr. & Harrell, November 1990; Hwang & Lin, 1999; McCune, November 1998).

Figure 2. Performance of Human as Information Processor



Source: Adapted from Harry H. Good, "Greenhouse of Science for Management," *Management Science*, July 1958, p. 3.

B. Information Overload and Changing Information Processing Behaviors

Increasing condition of information overload in our information environment forces us to make significant adjustments in the way we process information. In fact, this paper maintains that the condition of information overload has already begun to change our information processing behavior considerably. The following tendencies are identified to be the new, emerging information processing behaviors to accommodate the phenomenon of information overload:

1. Individuals began preferring short messages to long ones.
2. Individuals began preferring image information to text information.

First, the length of messages people exchange became short and concise. Faced with information overload, people began preferring less information to more information. That is, people began choosing condensed information instead of choosing long, detailed, and verbose information. Twitter, for instance, limits the amount of information people can enter by allowing only 140 characters to be entered each time. With rapidly advancing web capabilities, in terms of the storage space, speed and functionalities of various web applications this simplification or limitation at first may seem contradictory

to the technological progress. However, the popularity of Twitter with 1 billion tweets posted per week (KISSmetrics, 2012) and other similar applications and sites demonstrate the conscious or unconscious effort to tackle increasingly severe information overload by driving individuals to condense the information they post online.

Second, information must be presented in ways that is easy to understand. For instance, YouTube uses image (video) as a medium of communication. Here, instead of *writing* and *reading*, people would *broadcast* and *watch* video clips to communicate. If reading requires conscious effort to decode and translate written texts (literacy) into mental images and actions that are understandable to readers, visual communication skips this process and presents the same information in a more direct manner with images (or moving images-videos) and corresponding audio. In addition, visual communication tends to condense and compress information compared to when the same information is presented in writing (McLuhan & Gordon, 2003). Therefore the shift toward using visual communication tends to increase the information processing speed. The popularity of site like YouTube reflects with 4 billion video viewing every day and 800 million users every month (YouTube, 2012) illustrate the shift toward more convenient visual communication.

C. The Effects of the New Information Processing Behaviors on Individuals

This paper contends that the change in people's information processing behavior and preference toward short, condensed texts and visual information, in turn, had some inadvertent effects on people who increasingly consume such information. These effects include:

1. People's attention span is shortened
2. People use short-term memory extensively more than their long-term memory.
3. People become increasingly emotional in their decision making, rather than logical and rational.

First, in an information overload environment where large amount of information passes through one's mind rapidly, individuals begin to have short attention span. Rapid flow of large amount of information allows relatively less amount of time processing each unit of information and this subsequently renders individuals to have short attention span. The increasing condition of excessive information has created a new generation of people who are exceedingly good at quickly skimming and superficially "clicking and skimming through" vast amount of information. Such behavior encourages rapid examination of a large amount of information on a superficial level

and therefore the individual's attention span is inadvertently shortened over time. In addition, increasing consumption of image intensive communication such as online streaming video may attribute to this tendency as a study by Christakis, et al. (Christakis, Zimmerman, DiGiuseppe, & McCarty, 2004) found that an early exposure to television (around two years of age) is associated with later attention problems such as inattention, impulsiveness, disorganization and distractibility at age seven.

Relatedly, short attention span and rapid processing of vast amount of information largely employ short-term memory, rather than the long-term memory. If long-term memory is typically associated with processed thought, or creative thinking and knowledge created after much reflection and mental "fermentation process," short-term memory is a place for quick-witted thoughts and reactions that emphasize group and social consensus. Traditional print media—such books—promoted deep and creative thought, mostly utilizing the long-term memory, however, the new Internet and its various mediums of communication encourages "rapid, distracted sampling of small bits of information"(Carr, 2010). Increasing use of short-term memory and short attention span render the new generation of individuals to be relatively "shallow" in their thinking and lack well-thought-through perspectives.

In addition, as the Internet emphasizes social consensus and acceptance by peers, this tends to produce ideas and knowledge that "values speed and group approval over originality and creativity."(Carr, 2010) This, coupled with the predominance of *other-directed personalities* in our society (Riesman, 1961)—character of people that seek approval from our peer—make our generation relatively more susceptible to peer-pressure and unchecked group behavior. In addition to the growing presence of *shallow thinkers*, the increasing use of image and video clips renders individuals to be more prone to emotional bias and manipulation compared to traditional written words. While text-based information tends to be pallid, non-emotional and neutral as a medium of communication, pictures and video clips are charged with emotional appeals and bias depending on the kind of image being used to convey its message. That is, the alphabet itself, by the way it looks, does not solicit any emotional reaction, rather it is a symbol or an instrument used to put together to convey messages. What is written may raise certain emotional reactions, but the alphabet itself does not facilitate such reaction. On the other hand, images and pictures are in and of themselves not neutral and in many cases charged with emotion and bias. In fact, a powerful and distinctive attribute and ability of visual communication is that it is capable of manipulating or facilitating certain reactions from an audience with images and pictures embedded with certain emotional biases or implications. Visual communication is capable of emotionally appealing to the audience as it makes a direct association between the content of communication with images that are used to convey the message. Emotional appeal

and images are particularly deprived in text communication as written words separate sight and sound and meaning that "literate man undergoes much separation of his imaginative, emotional, and sense life, as Rousseau proclaimed long ago (McLuhan & Gordon, 2003)." McLuhan elaborates this point,

> Suppose that, instead of displaying the Stars and Stripes, we were to write the words "American flag" across a piece of cloth and display that. While the symbols would convey the same meaning, the effect would be quite different. To translate the rich visual mosaic of the Stars and Stripes into written form would be to deprive it of most of its qualities of corporate image and of experience, yet the abstract literal bond would remain much the same.

The same information—American flag—when presented in visual communication can arouse a sense of patriotism or other emotional elements attached to the image of American flag causing different effect compared to when it is presented in written word, "American Flag."

D. Policy Communication in the Age of Information Overload

Then what does public policy have to do with the changing information environment and changing information behaviors of citizens? The answer is that public policy must be communicated to citizens one way or another in its implementation phase and this communication takes place within our information environment. Therefore the effectiveness of public policy communication depends on how well it is adapted to our changing information environment and information behaviors of citizens as deficiency in its communication may increase the likelihood of policy failures.

Let us imagine that there is a policy that is not flawed in its design in any systematic manner and therefore it serves some social and public purposes. Then it would be reasonable to assume that the *effectiveness* or the impact of the policy depends to some extent on the extent to which eligible citizens (assuming the said policy is not mandatory in nature) are informed of the policy and the extent to which they choose to participate in it. First, citizens must be informed of the existence of the policy in order to participate in it. From the government's point of view, information about the policy must reach citizens and, secondly, it must *persuade* citizens to participate in the policy. Here, the changing information environment poses challenges in the following aspects:

> First, under the condition of information overload, traditional government communication is increasingly difficult to reach citizens.

Second, since people prefer short, concise and easy-to-understand (preferably image format) information, they are less likely to read the lengthy and dispassionate government documents and therefore unlikely to understand the policy details.

Third, typically government communication of public policy is not effective in appealing to citizens to participate in the policy, as it is not designed to produce favorable impression about the policy or induce citizens to participate, rather to inform citizens of the objective facts and rationale of the policy.

Fourth, in cases of controversy and disputes surrounding government policy, traditional government communication method is, for reasons above, ineffective against *policy antagonists* who possess, for various reasons, disincentives against the policy and therefore would *campaign* against the policy in various channels of communication.

Let's illustrate these points by comparing two methods of communication in delivering a government policy - one with a traditional method with an emphasis on objective facts, information, and rationale behind the policy, typically through lengthy government documents and public announcements,[2] and the other with the *new method*, utilizing image-intensive medium such as streaming videos to convey policy details.

Let us imagine a hypothetical waste management program in which a municipal government began a new program designed to collect various electronic wastes as these components pose considerable environmental hazards and also to recycle any reusable parts. The policy objective is to protect the environment by separately managing the electronic wastes and reduce waste by reusing components that are still functional. Assuming that there is no systematic flaws in the way the new program is designed to achieve the said policy goal, an effective communication about the new program is crucial in: 1) the extent to which citizens are informed of the new waste management program; 2) the extent to which they accurately understand the process, requirements and, in this case, actions they need to take that are necessary for the policy implementation (such as when and where to bring/leave their electronic wastes and the kinds of electronic products eligible for the new program); 3) the extent to which they are persuaded to participate in the new program.

First, visual communication possesses a comparative advantage in reaching (or being selected by) the target audience compared to the text communication. Pictures

2. Traditional method of policy communication, typically using written words (texts) as the medium of communication through lengthy government documents and press releases, and public announcements such as regular and special government briefings.

and images are deemed more vivid compared to pallid text information. This vividness "increases attention and prompt elaboration, making pictorial information more accessible (Tybout & Artz, 1994)." Images tend to stand out compared to text information and immediately draw the attention of the readers. Therefore, if the policy information is communicated through image intensive medium, more citizens are likely to be informed about the new waste management program. On the other hands, if the information about the new program was distributed in the traditional way, typically using texts (that is, written words) in official government documents (online and offline), press releases and brochures, they are more likely to be buried in the sea of already-abundant text information that overload our information environment and be overlooked by citizens.

Second, visual information, with its vivid imagery, sticks more effectively with people compared to more pallid text information. According to McLuhan (McLuhan & Gordon, 2003), when four randomized groups are given the same information through four different medium—TV, Radio, Lecture, Print—and administered a quiz to test their knowledge, it was the students with TV-channeled information and with radio that did better than lecture and print and the TV group stood well above the radio group. This is related to what Malcolm Gladwell calls *stickiness factor*, which refers to the extent to which information remains in one's memory and the message stays memorable. Stickiness varies depending on "relatively simple changes in the presentation and structuring of information that can make a big difference in how much of an impact it makes" (Gladwell, 2002). Images leave impressions on people and this make it easier to recall than text presentation of the same attribute (Costley & Brucks, 1992). This may apply in the delivery of public policy information in which citizens understand the content of the policy more accurately when presented in visual communication than when it is presented in text format. Well-informed citizens (of public policies) may translate into more successful policy outcomes as it reduces the level of misunderstanding and mistakes caused by citizens during the implementation process and consequently government wouldn't have to commit so much resource addressing these problems.

Third, similarly, if the visual presentation of the new program was conducted in a manner that positively appeals to citizens, more citizens are likely to be persuaded to participate in the program. Vividness of images not only draws the attention of the viewer but also, depending on the favorableness of the images being used, they facilitate emotional response from the viewers. Emotion and mood has been known to influence the people's judgment. For instance, it is well documented how the use of music and its corresponding mood and emotion influence consumer behaviors and purchase intentions (Alpert & Alpert, 1990; Bruner II, October 1990; Milliman, Summer 1982). Similarly, pictures and images affect persuasiveness of the message (Tybout & Artz,

1994) as well as favorableness of the product (Costley & Brucks, 1992). Therefore, visual communication allows the government to *advertise* and *embellish* the presentation of its policies by using positive images and visuals that would emotionally appeal to citizens. For instance, in the case of the hypothetical electronic waste management program above, imagine a visual clip that appeals to the audience about value of the new policy with images of severe environmental degradation and damages to the wild life caused by electronic wastes, citizens may be emotionally compelled to participate in the program, compared to pallid written statements.

In the changing information environment, therefore, visual communication has some important advantages over traditional text-based communication in disseminating policy information as it would reach more citizens; more effectively inform them of the details of policy requirements; and most importantly, it will emotionally appeal to citizens to participate and comply with the new policy. With visual communication, the policy may reach large proportion of eligible citizens and induce them to comply with the policy requirements, therefore, enhancing the overall value and impact of the policy in society.

A case is presented in the following section that demonstrates how images and impressions about a government policy play a powerful role in the outcomes of the policy and how emotion increasingly plays a role in policy outcomes as citizens are increasingly subject to *emotional messages* embedded in the visual communication.

III. Case Study: Mad Cow Disease Citizen Protest in the Republic of Korea

In 2008, South Korea - the third largest market for U.S. beef - decided to resume its import of U.S. beef after banning it in 2003 amid concerns over the case of the mad cow disease in the U.S. A decision that policy makers thought to be a relatively minor trade issue that would go mostly unnoticed by citizens had led to more than 2,000 street protests amassing over 930,000 citizens participating in the protest across the country against the government decision (Yonhap News, 2010). If you put aside the political motivations of various groups surrounding the US beef import (which this article does intend to address) and scientific facts and risk associated with the probability of transmitting the mad cow disease through US beef,[3] and focus on the ways

3. Most cases are reported in the UK. As of October 2012, there are 173 cases in UK, 25 in France, 5 in Spain, 4 in the Republic of Ireland, 3 in USA (2 of which had residency in UK more than 6 months) and Netherlands, 2 in Portugal, 1 in Canada, Saudi Arabia, Japan,

the arguments for and against the safety of the US beef import are made, it seems that the government policy was undermined by *policy antagonists* who aroused negative emotion and distrust about the policy and the MB administration by broadcasting negative imagery associated with the US beef.

Before President Lee, Myung-Bak was inaugurated, South Korea and the United States had already agreed on a Free Trade Agreement in the previous administration headed by President Noh, Moo-Hyun. Following up on the spirit of the previously set agreement and with the consideration of the opinions of the experts on the negligible danger of the Mad Cow Disease associated with the U.S. beef, President Lee agreed to resume the import of the American beef. Not long after the agreement was made, one of the MBC's (Moon-Hwa Broadcasting Company—one of major broadcasting companies in Korea) documentary show called, *PD Note* (in Korean, PD SuCheop), broadcasted a special episode on the Mad Cow Disease where the producers of the program is said to have misled the public by mistranslating facts and amplifying the perceived risks involved in the US beef. This includes claims of the genetic vulnerability of Koreans to mad cow disease, reporting and attributing the death of an American woman to the human form of mad cow disease and broadcasting an image of a falling cow ("downer cow") implying that it was suspected of having the mad cow disease. The eerie image of a cow that kept falling on the ground unable to stand on its own feet had considerable influence in impressing a powerful negative image about the US beef. The program was aired on a major Television Network and it had created strong negative emotional response and impression on the US beef and contributed to massive street protests against the government policy where tens of thousands of citizens took to the streets of Seoul and across the country, with candles in their hands, in their protest.

It was shortly after the airing of the program on April 29, that citizens began to mobilize the candlelight vigil movement against the government policy. Here is an excerpt in a book written by then the Minister of the Ministry of Food, Agriculture, Forestry and Fisheries (MIFAFF), Mr. Cheong, Woon-Chun (Cheong, 2009):

> A man was giving electric shocks to a fallen cow. (He) also fired water canon (at the cow). The cow staggered, trying to get up, but lost the balance and fell down again. The name of the program was "American beef – is it safe from the Mad Cow Disease?" It was made to look like that the Mad Cow Disease was the obvious cause. Erie music was added to the scene. It was (erie) enough to give me goose bumps … the scene changed. A woman was wailing. (The program)

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and Italy. *Source: University of Edinburgh, Variant Creutzfeldt-Jakob Disease Current Data* (April 2012) at http://www.cjd.ed.ac.uk/vcjdworld.htm.

> dealt with the death of an American female student … it said that the mad cow disease may be the cause … the scene changed again where the reporter was talking to the MC. In the background, it said, 'Mad Cow Disease beef, should we consume it risking our lives?' … **Candlelight vigil started this way** … the influence of the media was too powerful and beyond my imagination.

Fear exploded and unscientific rumor began to spread widely among the population. Citizens gathered to protest the government policy in mass and distrust and anger against the government mounted as it continued to support its decision to support the import of U.S. beef which people then were confident of being tainted with the mad cow disease. The government responded to such sentiment, as the Minister elaborates (Cheong, 2009),

> I put all my efforts in blocking the further spread of fear (of citizens) about the Mad Cow Disease. I mustered all the resources I could muster - public announcement, interview with the media, newspaper advertisement, TV discussion forum, "to-the-end" debate with the media."

However, the government response to the negative impression created by PD Note was not sufficient to reverse the effect. The fear continued to spread and the negative imagery dominated the people's mind as more and more people took to the street to protest. The government reaction was not effective partly because, shortly after the airing of the document, there came a period of information overload. Four major media news websites[4] were searched for the number of articles between January to December of 2008 on three key words—"FTA (Free Trade Agreement)," "Mad Cow Disease," and "U.S. beef." All three websites display similar pattern and here the distribution of articles on one of the sites (www.hani.co.kr since it showed the most number of articles on these keywords) will be shown in the table below.

As table 1 indicates, after the airing of PD Note on mad cow disease, the number of articles on mad cow disease and U.S. Beef exploded (for instance from mere 44 to 571 between April and May 2008). It is as if PD Note had the advantage of a *first strike* which firmly placed negative imagery and impression about U.S. beef and subsequently about MB administration, followed by a period of information overload that significantly impeded the government's ability to reach and persuade citizens. In addition, the approach that the government took to persuade citizens was ineffective in reversing and calming the people's anger and distrust. The government resorted to scientific and objective facts about the mad cow disease, the legality of the government decision and

4. www.chosun.com; www.hani.co.kr; www.kbs.co.kr; www.imbc.com.

Table 1. Number of News Articles on the Topics of FTA, Mad Cow Disease, and U.S. Beef

	FTA	Mad Cow Disease	U.S. Beef		FTA	Mad Cow Disease	U.S. Beef
January-08	66	3	7	**July-08**	**54**	**286**	337
February-08	93	10	19	**August-08**	**41**	**143**	136
March-08	47	2	5	**September-08**	**26**	**66**	82
April-08	**152**	**44**	83	October-08	41	53	60
May-08	**235**	**571**	706	November-08	135	41	40
July-08	**105**	**505**	744	December-08	115	40	56

tried to convince citizens that since this is an agreement concluded between two nations, re-negotiation was not possible. Such objective and "unemotional" information was not effective remedy for citizens who are emotionally aroused about the perceived danger of US beef and distrust of MB administration.

All the public announcements, TV debates, newspaper advertisement, and other efforts by the government didn't work and the street protest intensified. The emotion continued to escalate and rational persuasion did not seem plausible. Cheong elaborates (Cheong, 2009),

> In order to provide the accurate information to citizens regarding the mad cow disease, I ran all over the place. I sought after experts and scholars asking them to submit articles to newspapers and do interviews. No one willingly accepted, because it seemed that saying anything positive about the beef trade agreement would probably make them scapegoats.

The situation worsened without any effects of the government response until the government took emotionally appealing and drastic measure of the entire Cabinet and top civil servants proposing to resign, and the airing of a public apology by the President for his decision on the matter. With this far-reaching measure (on a relatively small trade issue), the government communication began to go through to citizens as shortly afterward, the protest began to subside. After a renegotiation with the US, the import of the U.S. beef resumed at last and as of 2010, US beef has the market share of 33.3% - an indication that consumers are gaining confidence on the US beef. However gaining this level of market share took some time as, up until August 2009, U.S. beef had about 16% of the market - 1/3 previous level of import before the ban in 2003. The negative image associated with U.S. beef through the image of downing cow created a strong tendency to avoid American beef among consumers who would pay higher prices to buy Australian beef instead (Kim, 2009).

MIFAFF filed a lawsuit against MBC's PD Note and after years of ensuing court rulings and appeals, Supreme court eventually ruled PD Note misled the public by distorting and mistranslating facts[5] The court ordered MBC to broadcast correction and refutation segment, while declaring acquitting the producers of PD Note on the ground that criminal charges against employees of the press (MBC News, 2011). MIFAFF, on its press release, stated that PD Note's distortion and exaggeration seriously harmed the implementation of the government's policy and emphasized that when the media handles issues of food safety, their program should be based on scientific facts and evidence (Ministry of Food, Agriculture, Forestry and Fisheries, June 18 2009).

IV. Discussion and Conclusion

If policy communication can be portrayed as a game of persuasion with citizens in the middle and the government and its antagonists on the opposite ends vying for citizen support and compliance, in this case, it was an apparent loss of the government. Despite the fact that the government had objective and scientific facts to justify its decision behind the U.S. beef import, the power of image and subsequent emotional reaction by citizens swayed the tide of the policy outcome. With increasing availability and use of visual communication that influence the image and impression of government policies and emotionally drive citizens who, in turn, possess increasingly short attention span, and subject to emotional manipulation, it becomes crucial that the government should be aware of such changing information environment and the emergence of a new generation of citizens with different information processing habits and tendencies. This in turn calls for the government to adapt its communication method to engage in more active *marketing* and persuading of its policies using visual communication, rather than its traditional objective, lengthy, and dispassionate text-based communication.

With information overload and rapid diffusion of visual communication that could potentially undermine government policy as was illustrated in Korea, more effective medium of communication such as visual communication and more active *image making* for public policies should be incorporated in the communication between citizens and the government in order to enhance its ability to reach citizens; provide policy details more effectively; create positive impression and sentiment about government policies; and to facilitate greater citizen participation and compliance with the policy. This

5. The three aforementioned claims – 1) genetic vulnerability of Koreans to mad cow disease, 2) reporting and attributing the death of an American woman to the human form of mad cow disease and 3) attributing the cause of the downer cow as mad cow disease.

would require a fundamental shift in thinking about the nature of the communication between citizens and the government from a top-down, dispassionate, and one-way communication to a more active reaching-out, persuasion, and image-making. Without such shift, it may become increasingly difficult to reach citizens and facilitate their participation and compliance to policies and make government policies vulnerable to well concerted media attack from antagonists.

This paper explored a potential link between our changing information environment, changing information processing behavior and their implications on the communication of public policies. However, more rigorous and systematic approaches would be necessary to examine the validity of the arguments suggested in the paper.

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