This paper examines Koreans’ protests against U.S. beef imports by deconstructing online dynamics of news diffusion using data comprised of widely read blog entries created by Daum blog reporters between May and June 2008. The results indicate that Korean bloggers’ political positions on U.S. beef imports were polarized, which ultimately influenced their network positions and the way news was diffused to them. Using a qualitative examination of bloggers’ profiles, we found that bloggers who formed an independent group in order to run a collective blog, and journalists who worked in smaller media organizations contributed to enhancing citizen engagement with the issues at stake. Furthermore, we observed that there was a structural change in the online network between May and June.

Key words: U.S. beef, Daum Agora, candlelight protest, social network analysis, news blogosphere, webometrics, hyperlink analysis.


Blogs are rapidly emerging as an important source of news. They can also provide important clues to aid in understanding new methods of news production; new in the sense that there is little or no control of these blogs. In addition, news blogs play an integral role in expanding the way the news media is constructed by providing more diverse information and allowing the audience to more deeply explore various points of view than the traditional mass media can permit. Furthermore, news blogs have become a very powerful watchdog against transgressions by the mainstream media or government through their ability to criticize various aspects of the public agenda. Issue networks formed through blogging have emerged as primary sources through which public sentiment is formed and civil mobilization is initiated (Nguyen, 2006; Castells, 2008).

The news blogosphere can amplify the voice of individual citizens because influential bloggers have the power to identify and modify hidden content from ordinary homepages and disseminate it through cyberspace. Tags also play an important role in enabling the reader to identify key sociopolitical issues in the news blogosphere, particularly relevant on Twitter and similar services. They also have a clustering effect, in which homogeneous opinion groups naturally form clusters. The virtual sphere thus promotes the democratization of the media by enabling ordinary citizens to have voice and to build communities,
occupying a space in civil discourse formerly monopolized by the mainstream media. Communication in this area is generally led by the most influential news bloggers who exert considerable authority and influence over others and can create highly dense networks in which they serve as influencers or hubs (Tremayne, 2007a). Prominent groups of this kind, which are typically formed by a small number of bloggers, amplify the agenda-setting and issue-rippling effect they have by creating strong links and interactions between ordinary news bloggers and readers. Their blog posts, by focusing on specific issues, tend to have a strong agenda-setting effect, ameliorated by the high-quality nature of their posts, which tend to reflect professional knowledge and criticism (Park & Jankowski, 2008). Readers respond to such posts with a high level of trust, which in turn further enhances the reputation of such influential bloggers. The power of these influential groups can be shown through the medium of technologies such as RSS (Really Simple Syndication), trackbacks, and tags (Bruns, 2005; Ceren, 2006). The present study examines the hidden structure of the news blogosphere by employing content analysis and social network analysis.

**Literature Review**

**News Production and Diffusion Mechanisms in the Korean Blogosphere**

Korean netizens tend to visit blogs that they find via surfing major portals, rather than through purposeful searching for specific blogs. Such blogs are usually provided by portal services and receive enormous amounts of exposure through search engine indexing. Portals solicit new users through their own blogs in Korea’s fully saturated internet market. *Daum*, Korea’s largest online communication portal, has been offering news blog services since November 2005. Its *Blogger News Reporter Network* (hereafter “the Reporter Network”) is Korea’s only news blogosphere that handles a wide range of themes, including politics, the economy, and lifestyles. The number of news bloggers in the Reporter Network increased rapidly from only 1,500 in November 2005 to 100,000 in December 2008. December 2007 (the presidential election; Park & Lee, 2008) and May 2008 (the time of the ‘candlelight demonstrations’) saw the largest increases in bloggers most likely due to the heightened levels of general political interest at these periods. In addition, the Reporter Network had 4.8 million weekly visitors in June 2008, when the demonstrations peaked (more than 32 million page views in the month).

Understanding the critical agenda of the news blogosphere and identifying the core agenda-setters does not require unduly complex analysis. Approximately 100 blog news stories that have received the highest numbers of trackbacks are periodically moved to the *Hot Issue Trackback* section on the front page of the site, which allows them the highest level of exposure. The bloggers who create these stories are generally known as “power” bloggers. Power news bloggers are typically followed by a large number of readers, who follow as a result of the bloggers’ solid and trustworthy reputation. In contrast to Google, the Reporter Network does not employ a computer algorithm for its news selection process. Instead, the Reporter Network depends on close cooperation between Daum’s editorial board, peer news bloggers, and readers to ensure that its news content is of high quality and to cement the popularity of its blogosphere. A parallel can be drawn with the site Slashdot.org, which is a popular technology news blogging site in the U.S. (Tapscott & Williams, 2006). The term “slashdot effect” (also known as slashdotting or being slashdotted) refers to a mechanism by which posts can achieve high exposure due to linking from Slashdot users and other sites and/or Slashdot blogs that mention specific trending issues. As Tapscott and Williams (2006, p.143–145) emphasized, the Slashdot effect is based on the site’s unique editorial and selection mechanism. The present study takes this into consideration when examining the way in which the Reporter Network draws public attention through its ongoing establishment of the news blogosphere as a legitimate counterpart to the mainstream media.
Role of Blogs in Public Communication

Among the Internet’s many positive effects, blogs have emerged as one of the most popular forms of social media and are generally regarded as the most revolutionary form of media since the introduction of television because they provide users with the ability to constantly claim, identify, and refute information through networked discussions. Previous studies have found that bloggers are far more likely than nonbloggers to represent the opinion of netizens and have the ability to exert strong influence over public opinion formation in cyberspace through the active expression of opinion (Gillmor, 2004; Hewitt, 2005).

Technological and sociocultural factors act as a catalyst for the development of blogs. For example, bloggers can use Web 2.0 technology to establish issue-based networks by strengthening the effects of their postings as well as through linking. Similarly, RSS enables bloggers to obtain news and information on a real-time basis; tags guide bloggers to opinion groups with whom they are highly likely to relate; and trackback technology promotes fast-paced and dynamic linking and the exchange of opinions between bloggers. The rise in blog popularity and usage is relatable to changes in social norms and the awakening of media audiences; the passive and individualized media audiences of the past have become active as a result of the internet and its interactional facilities. Contemporary media audiences have been reborn as “producers,” that is, as individuals who engage with websites interchangeably in consumptive and productive modes (Bruns, 2005, p. 23). Social networking activities such as blogging can be understood as new expressions of self-realizing behavior (Nardi et al., 2004). Yet despite this, blogs have also received substantial criticism for being a prolific source of misinformation. There have been many cases in which overstated or even outright fabricated information has caused considerable social chaos and has been widely publically shared (see: Li & Walejko, 2008; Maratea, 2008). As a result of such cases, users have started to frequent those blogs that have been validated by other netizens.

In particular, the news blogosphere has received considerable attention because its information tends to be highly reliable and valuable. In the Korean context, Park and Thelwall (2009) investigated the relationship between linkage patterns (represented through politically active citizens’ blogosphere) and social structures in Korea and found that the blogs can be used to discover web-based sociopolitical phenomena. Citizen bloggers can become prominent when they are able to quickly provide the public with news from perspectives that are far more diverse than those provided by the traditional media and can have extensive ties with important political actors (e.g. congress members). More recently, Sams, Lim, and Park (2011) tracked changes in the Korean websosphere related to political elite during the 2009 by-elections and investigated the influence of election campaigns that had employed blogs. Specifically, they used blog posts to examine the relationship between the number of votes received by political candidates and the level of their online presence. They determined that news blogs formed a centerpiece of election campaigns, which poses a substantial challenge to the mainstream media.

Blog Use During the Candlelight Protest in Korea

In 2008, Korea witnessed the largest candlelight demonstration in its history. The agreement between Korea and the US to resume U.S. beef imports, which was viewed as unfair by many Koreans, sparked widespread candlelight demonstrations that drew more than 3.5 million people over a 3-month period. The Korean government’s decision to relax inspection standards of U.S. beef induced widespread public fear. The most distinctive characteristic of the candlelight demonstrations was the remarkable activity of networked bloggers related to them. Thus, online discussion forums and blogs clearly exhibited that they have the potential for considerable political power during the 2008 candlelight demonstrations. In this case the government’s attempts to disseminate information about the safety of U.S. beef were
focused mainly on analog media, which is often regarded as a unilateral and vertical channel toward citizens (Cho, Choi, & Park, 2012). Despite this victory for bloggers, many issues surrounding the role and potential of news bloggers remain as yet undefined and controversial.

This study therefore focuses on three issues. The first issue is related to the representativeness of public opinion in the online space. If news bloggers are considered to be opinion leaders, who can qualify as power bloggers? Are these online opinion leaders limited mainly to elite-status males residing in metropolitan areas (i.e. following power trends in the offline world) or do social class, gender, and place of residence impact power differently online? In addition, are these bloggers professional journalists or do they have different types of careers?

The next issue is one of considerable controversy. Advocates of the homophily theory have argued in support of the Balkanization thesis. This thesis has two key points: The first point specifies that various filtering technologies inherent in the Internet promote the assembly of like-minded people because people participate in the online public sphere specifically to propagate their opinions. This tendency causes the network structure to take a form in which heterogeneous groups of nodes are fragmented (Sunstein, 2007). The other point is that the online sphere can easily be polarized around critical issues and thus does not inherently embrace neutrality. Such bipolarization promotes only marginal debates and extreme positions and has thus adverse effects on democracy (Chang, 2008; Tateo, 2005). The question for this research is whether the Balkanization thesis is proven in the Korea’s news blogosphere context.

The final issue relates to how the ASIR (agenda-setting and issue-ripping) effect operates and how it expands the influence of influential news bloggers. The ASIR entails explosive and rapid issue propagation in cyberspace. This concept builds on Kim and Lee’s (2010) concept of agenda weaving, which claims that the agenda setting function in a digitalized network society is scattered around multiple (online) channels rather than concentrated on single (offline) medium (Kim & Lee, 2010). The ASIR is particularly important in a Korean context because contemporary Korean citizens can be seen as the new digital nomad generation, who can address the misunderstanding and conflicts that arise between the government and the public who consume online media (Cho, Choi, & Park, 2012; Park, 2011). In particular, the current paper focuses on how influential news bloggers exercise collective power through their large group of followers. A series of studies such as Bruns (2005), and Farren and Drezner (2008) have emphasized that power news blogs can often circumvent the agenda-setting aims of the mass media. Such studies, however, have failed to provide a clear understanding of precisely how the selection and concentration of agendas originate from influential news bloggers at an aggregate level and the ways in which active responses are developed by readers. This research lacuna may potentially be resolved by investigating the mechanism of the ASIR effect in detail.

**Research Questions and Discussion Points**

This study examines both the ASIR mechanism as found in the news blogosphere and the network structure of influential news bloggers. Previous studies have provided evidence of a considerable recent increase in the social influence of individual news blogs and have emphasized the public political empowerment that emerges through news bloggers (which often exceeds that given by the government and the traditional media). They have highlighted elections in Third World countries, various social movements, and wars, among other issues. However, no study has yet provided a full assessment of how the news blogosphere is created at the aggregate level, nor of the nature of power groups in this virtual sphere, nor what types of network structures such groups use when they look to expand their political influence. Considering these omissions, the present study examines the news blogosphere during the 2008 candlelight demonstrations in Korea and is guided by three key research questions, as summarized below.
RQ 1) Who are the influential news bloggers and what are their demographic characteristics in terms of their gender, occupation, and place of residence?

This is an important question in that traditionally male journalists working for major news organizations in the Seoul metropolitan area have been the most important agenda-setters in Korea’s offline world. However, as Rheingold (1993) has asserted, the Internet can play an equalizing role when citizens come to address important sociopolitical issues. Therefore, we examined whether the traditional agenda-setters played a substantial role in the blogosphere during the candlelight demonstrations and whether team blogs (i.e. collectively organized blogs) had as much influence as individual blogs in the news blogosphere. Team blogs, which represent a new form of mass collaboration (Tapscott & Williams, 2007; p. 259), posses some advantages, which include the quick exchange and collection of a greater volume of information as well as the qualitative and quantitative growth of content based on a professional and ideological homogeneity among team members.

RQ 2) How are blog posts constructed and what are the patterns of responses to such posts?

To examine structural changes in conversation networks over time and the causes of such changes, we analyzed the content of blog posts and examined how peer bloggers and ordinary citizens responded to blogs in the Reporter Network. Sunstein’s (2007) Balkanization thesis posits that the online space can easily be polarized into negative and positive groups when an online debate considers a critical or controversial issue and that such groups, by nature, do not embrace neutral positions. We therefore examined whether the news blogosphere showed evidence of this fragmentation phenomenon during the candlelight demonstrations.

RQ 3) What are the structural characteristics of the network of news bloggers?

Extending from RQ 2, we examined whether there were any increases or decreases in network centrality for the core group. Given that the number of people who participated in the demonstrations remained steady in June, we examined how online discussions evolved around blog-based boards. Once the demonstrations had become a nationwide movement, the government soon partially disclosed some of the problems that were associated with the agreement. Ministers tried to resign in early June, and the President offered an official apology in mid-June. In addition to this, the mainstream media started to criticize the demonstrations as cyber populism and thus acted to some degree as the mouthpiece of the government. In May, the mainstream media had not realized the gravity of the situation, but by June, progovernment media outlets started to address the issue and paid some attention to how public opinion was being formed in the online space. As a result of this, people showed less inclination towards aggressive refutation of the claims made by the mainstream media and government agencies, indicating that changes in social attitudes toward U.S. beef imports could influence the network structure of the Korean blogosphere.

Data Collection and Analysis

For a content analysis, we employed the following procedure: coding frame design → coder training → dummy coding (coding results discussed with the authors) → coding and validation (coding by a coding expert). Through content analysis of blog posts, we were thus able to draw meaningful inferences about relevant phenomena by identifying the political orientation of news bloggers. In other words, the content analysis provided valid data for interpreting the resulting issues and opinions, including the...
issue of the existence of the Balkanization phenomenon in the news blogosphere; and the existence of other networking effects.

We conducted a social network analysis to understand from a multidimensional perspective the relationship between bloggers in the news blogosphere. Our network analysis focused on the relational characteristics of bloggers based on trackbacks, not on their individual characteristics (derived from Park & Thelwall, 2009). This type of network analysis was appropriate because power groups in the news blogosphere are structurally formed through the networking of bloggers who are concerned with the same social issues. Further to this, a combination of these two techniques allows for not only an examination of the social relationship among bloggers in the blogosphere but an analysis of their political orientation or position. We used UciNet and NetDraw (Borgatti et al., 2002), which is a supplemental software package designed for the network mapping. We first measured the network centralities of bloggers.

This study’s network analysis can be summarized as follows: if Blogger A trackbacks a post of Blogger B (or vice versa), then a “relationship” exists between the two. The number of trackbacks a news blogger receives is a measure of the level of trust that they can command in the network. If trackbacks to news bloggers are generated mainly by like-minded groups, this trust can be understood as a type of bonding social capital, and the expansion of such social capital may lead to the Balkanization of the news blogosphere. On the other hand, it can be understood as bridging social capital if the trackbacks are generated by groups with a wide range of interests. The expansion of bridging social capital may lead to the diversification of the news blogosphere, rather than Balkanization (Sunstein et al., 2005). Therefore, the present study employs the social network model to examine the social capital aspects of the news blogosphere represented by the trackback network. For a breakdown of the detailed procedures of webometric network analysis, refer to Park (2010).

The network centrality of a blogger is the sum of the trackbacks between bloggers. Inflow centrality increases as the number of trackbacks to a blog increases, and outflow centrality increases as the number of a blogger’s trackbacks to other blogs increases. Bloggers with a high level of centrality are influencers or a hub in the network. In this study we used the centralization index, which can be used to measure the extent of the most central blogger’s influence within the network. A higher centralization index means that the information in the news blogosphere is more greatly concentrated in the most central blogger. The most central blogger is located at the center of the network map. A network’s centrality and centralization can show which bloggers lead the formation of power group networks and the changes that occur when they act as influencers or hubs.

To conduct these analyses, data were drawn from posts from the Reporter Network, which was the largest news blogosphere in Korea between May and June 2008. The data were collected and analyzed as follows: first, three keywords—candlelight rally (촛불시위), U.S. beef (미국산 쇠고기), and mad cow disease (광우병)—were used to search for blog posts that contained the keywords. Of the posts collected, those with 10,000 or more views (i.e. posts that could be reasonably assumed to have had considerable influence on public opinion during the candlelight demonstrations) were selected for the analysis (111 posts for May and 152 for June). There are solid reasons as to why this specific time period was chosen for this study, given its political and social ramifications in Korea. During May and June of 2008, U.S. beef imports and the connected issue of 'mad cow disease' became extremely controversial in Korea. In a time-series sentiment analysis of domestic social media (e.g. Cyworld) users’ communication patterns, Park et al. (2011) found that people strongly expressed concerns related to this matter during May and June. During this period, as Yun and Chang (2010) states, the Internet, and in particular the Daum Agora site played a pivotal role in forging bonds between and bringing together a wide range of people, including teenagers, who were concerned about the issue in question. Secondly
in our study, all of the selected blog posts were downloaded and analyzed in order to understand the political orientation of the blogs. Thirdly, the demographic characteristics of bloggers—which included their gender, place of residence, and occupation—were determined. Fourthly, the numbers of views, comments, and trackbacks were determined for each post. Finally, network maps which display the trackback relationship among bloggers were drawn.

Results

Who Are Influential News Bloggers?
First, we examined the demographic characteristics of the influential news bloggers who expressed negative attitudes toward U.S. beef imports in the Reporter Network and who influenced public opinion by their posts. In terms of their gender, there were far more males than females, which was somewhat predictable given the leading role that male bloggers tend to play in the news blogosphere for hard issues, e.g. political matters. Moreover, as the candlelight demonstrations peaked in June, the percentage of female bloggers decreased even further, down to approximately 33%.

In terms of the regional distribution of the influential news bloggers, a vast majority resided in metropolitan areas. In June, the percentage of power bloggers who resided in metropolitan areas increased by 11.34%, whereas that of bloggers in other regions (including those in overseas locations) decreased by 8.6%. The large concentration of influential news bloggers in metropolitan areas suggests that metropolitan areas are the center of political agenda-setting efforts and public opinion formation in both the real and virtual world.

A vast majority of influential news bloggers managed their blogs as personal blogs, not as team blogs. This may be because a blog is essentially a personal medium. However, personal blogs decreased by 9.81% and team blogs showed a 9.82% increase in June. There were eight team blogs in May. Four were managed by internet news reporters, one by traditional press reporters, one by presidential staff members; one by social movement activists; and the final one by a group of bloggers with multiple jobs. The number of team blogs increased to 17 in June, but the breakdown of these team blogs remained similar: Nine were from teams of internet news reporters, four from teams of press reporters, two from teams of social movement activists, one from a team of politicians and one from a team of artists.

We also examined the occupations of influential news bloggers. A majority of these bloggers were working professionals who belonged to the middle and upper social classes. Noteworthy is that journalists accounted for a substantial portion of influential news bloggers, suggesting that a group of professional message producers act as core agenda-setting bloggers during crises that involve large-scale social movements. From May to June, although the ratio of journalists increased sharply from 32.00% to 40.97%, the largest increase was found in the number of internet news reporters.

Web Issue Analysis of Blog Posts
On the examination of the political orientation that was reflected in posts related to U.S. beef imports during the candlelight demonstrations, we found that very few posts supported the implementation of U.S. beef importation. In May, 78.1% of the posts opposed U.S. beef imports, and an agenda-setting network opposing the government’s policy was established. Particularly noteworthy is the dramatic change in the number of posts that took a neutral position, which increased in June to 52.38%. The number of posts supporting the imports decreased slightly. Netizens responded to the 178 posts by viewing them 7,535,231 times, and added 26,727 comments, and trackbacked 796 times. The numbers of views and comments far exceeded the number of trackbacks. This is mainly because trackbacks require more engagement than reading (views) or writing (comments) on the part of the user.
In terms of the pattern of interactions between news blogs, there were 796 trackbacks for 178 posts. The average number of trackbacks was 5.30 in May and 3.90 in June. The level of trackbacks to anti-import posts was higher than that to other posts for both months. Despite the increased number of neutral posts in June (which then exceeded the number of anti-import posts), the number of trackbacks to anti-import posts remained higher by a significant margin, indicating that, despite a significant decrease in their number, news bloggers who opposed the imports maintained their position as the main influential bloggers by using their existing social networks to continue to spread information.

How Are Influential Bloggers Connected?
The similarities and differences between network structures can be understood by examining the centralization index, which indicates the in-degree and out-degree centralization of network structures in a quantitative manner. There was no substantial discrepancy between the two networks in terms of in-degree centralization, but their out-degree centralization showed a substantial increase from 19.3% in May to 25.1% in June. The primary reason behind the increase in out-degree centralization in June was the 35 trackbacks by the user operating under the alias luvyooz, who had been silent in May. This provides support for the argument that a certain node can lead to substantial changes in the network structure as it rises to the position of a hub through use of trackbacks. Noteworthy is that certain groups contributed with particular significance to in-degree centralization. A majority of the nodes recording 2 degrees or above were males who were either internet news reporters or full-time bloggers residing in metropolitan areas.

As shown in Figure 1, those bloggers who opposed U.S. beef imports formed a very strong agenda-setting network within the news blogosphere in May. The small number of proimport and neutral bloggers were isolated and scattered because they failed to form clusters. The blogger who received the most trackbacks was chchtan (9 trackbacks), followed by freesopher and kimjongbae (5 trackbacks each). These three were males residing in metropolitan areas and all three worked as newspaper or internet news reporters. On the other hand, the blogger with the highest number of trackbacks to other bloggers was dongnae, a full-time female blogger with 25 trackbacks, followed by wantkorean (a part-time lecturer in university) and yjua (a female newspaper reporter), who had 12 and 8 trackbacks respectively. In-degree and out-degree centralities are both calculated in two ways. Valued degree centralities are measured based on the raw frequencies of trackbacks exchanged between two bloggers. In other words, a weighted matrix is constructed. Next, the number of trackbacks between a pair of bloggers is binarized. No matter how many trackbacks (s)he sends/receives to/from the other bloggers, we count them as one.

The news blog network became fragmented in June (see Figure 2). The network was connected through strong influencers and hubs in May, but in June, as the links between these started to weaken, the network fragmented into several clusters. Some bloggers led the centralization of the network in both May and June. Specifically, Kimjongbae received the highest number of trackbacks (9), followed by 2kim, sisain, hanguko, and midiaus, who each received 5 trackbacks. All of these users were bloggers who worked as newspaper reporters or full-time bloggers. In addition, these individuals produced more posts than other bloggers in both months and outperformed others in terms of the numbers of views, comments, and recommendations that they received. The influencers in June, who were divided into the anti-import and proimport groups, acted as centers for fragmented clusters, rather than as the center of the network as a whole. They also increased bridging social capital through their trackbacks with bloggers who belonged to heterogeneous groups. Luvyooz, who was mentioned earlier, played a role as a hub promoting the out-degree centralization of the network by having 35 trackbacks to other blogs. Nevertheless, the connection strength of the network decreased from May to June: The number of trackbacks decreased, and the only strong hub in the network in June was luvyooz.
As illustrated in Figure 3, there were 28 influential news bloggers whose posts received 10,000 or more page views in both May and June. This core group consistently took a central position in the network. All but one of this group were male, 57.11% resided in metropolitan areas, 46.43% were journalists, and four blogs were team blogs. This is a clear indication of the type of bloggers forming the core agenda-setting group at this time. These bloggers made a total of 128 posts in May and June, which was more than twice the number produced by other influential news bloggers. In addition, their
dominance in the sphere was indicated by the numbers of views, comments and trackbacks that they received. We compared the number of posts with that of trackbacks for analysis. *Mediaus*, who recorded the largest increase in the number of posts, and *pdjournal*, who recorded the largest decrease, showed an increase in the number of trackbacks by 66 and a decrease by 48, respectively. However, the bloggers *2kim* and *chchtan*, despite producing more posts in June than in May, still recorded decreases of more than 10 trackbacks. This result may be due to what can be interpreted as their lower reputation and the lesser trust that they inspired: Although their posts were viewed hundreds of thousands of times, only several hundred comments were added to these posts.

**Discussion**

We examined structural changes in the network of influential news bloggers between May and June 2008. A small number of bloggers against U.S. beef imports played a pivotal hub role that efficiently connected content produced within the Reporter Networks with ordinary users. These few bloggers produced far more posts than did other bloggers and dominated over the others in their numbers of views, comments, and recommendations. They increased bonding social capital within the news blogosphere by establishing close relationships with other users and gaining the trust of homogeneous groups. That is, through these few bloggers, the news blogosphere became structured as a small-world network, which facilitated a higher degree of information exchange and public opinion formation.

The results of in-depth analysis of the sociodemographic attributes and actions of influential bloggers show that full-time bloggers started to emerge as agenda setters for political issues, taking charge of one axis of journalism in what was then a new phenomenon in Korean society. Korean society has been somewhat reluctant to recognize the social authority of bloggers, a tendency which has hindered the development of blog journalism (Cho, Choi, & Park, 2012; Park & Thelwall, 2008). Therefore, the fact that full-time bloggers played such significant roles during the candlelight demonstrations represented an important change in the way that Korean society addressed the spread and development of news and political comment. Internet news reporters, together with newspaper reporters and some social
activists, formed the main body of the group of influential bloggers who used team blogs. Noteworthy is that all of the team blogs (except for the one managed by the government) displayed progressive political characteristics, which indicates that these team blogs played an important role in bringing the key issues surrounding U.S. beef imports into the agenda for the candlelight demonstrations by using their expert knowledge and insights. However, there was no active blogger who came from a blue-collar background, which may substantially diminish the social representativeness of the public opinion that was induced by the bloggers.

There were some important changes in the characteristics of the bloggers between May and June. A large number of neutral bloggers entered the Reporter Network to provide proimport bloggers with support, which helped to balance the power between bloggers with differing positions. This change can suggest two possibilities: First, a large number of new bloggers with a neutral position may have joined the Reporter Network, or second, a large proportion of existing bloggers who had initially taken an opposing position could have changed their point of view in June. It may be that both of these suggestions are partially accurate ways of understanding the situation. As the candlelight demonstrations continued, more bloggers and members of the public began to express the view that U.S. beef imports could in fact be tolerated if the inspection conditions and procedures by which this would take place were made more stringent. In fact, neutral posts generally stated that they would agree to U.S. beef imports if the inspection standards and procedures for U.S. beef were tightened. The neutral group promoting this viewpoint consisted of a few new bloggers in the Reporter Network and a large number of existing bloggers who defected from the anti-import group. Ordinary citizens such as salary workers and students thus exerted more influence in June than in May. The Korean presidential blog, which had participated in the agenda-setting process through its regular posts, also lost readership in June. These results, when amalgamated, can suggest that readers’ level of trust in the proimport bloggers was initially low. In May, the core network group consisted mainly of bloggers who were opposed to U.S. beef imports. There was some tension between pro- and anti-import bloggers, which was reflected in the exchange of trackbacks between these two sets of bloggers. However, in June, both sides of the debate were weakened considerably as the rise in the neutral group changed the network structure. Influential bloggers with polarized views at this point failed to earn or maintain the trust of readers and accordingly disappeared from the news blog scene in June. This pattern of structural change is inconsistent with Balkanization theory. That is to say, the results of this study suggest that the online public sphere does not always strengthen and polarize the ideological positions of its existing participants and that the Balkanization of the online public sphere does not necessarily have to directly imply the polarization of participants into two opposing, binary opposed factions. Rather, blogging may in fact have the capability of neutralizing the online public sphere through promoting the active exchange of information between parties and the proposition of realistic alternatives and solutions that transcend polarized viewpoints.

Conclusion

The results are summarized as follows. Firstly, the Reporter Network, which is a platform that promotes open competition between its participants, was the main producer and distributor of high-quality news. The editing mechanism through which Daum and news bloggers collaborated to produce news enhanced both the quality and popularity of blogger news content. In addition, its reputation system, which consisted of the possibility to record posts’ number of views, recommendations, and to leave comments, improved the level of interaction as well as trust between bloggers and netizens. Further, the best news stories were featured in special sections of the site that allowed the news to be exposed to
more than 1.5 million netizens. The way that these platforms functioned allowed the news blogosphere to become the key driving force behind the candlelight demonstrations. Web 2.0 technologies such as trackbacks, RSS, and tags transformed what was a random network into a single-issue network oriented around power groups. In addition, influential news bloggers were able to conclusively repute governmental claims and those of the mainstream media through acting in a watchdog capacity, joint with netizens.

Secondly, the demographic characteristics of bloggers, particularly their gender, place of residence, social class, and occupation, were more diverse than the mainstream (conservative) media reported. For example, students who were overseas and white-collar young workers expressed their opinions on U.S. beef import during the candlelight demonstrations. Despite this, a large majority of influential news bloggers were males who lived in metropolitan areas. These individuals were professionals representing a variety of fields, of which 30% to 40% were journalists. This finding suggests that, similar to the offline world, agenda setting and public opinion in the online space are led by certain groups of well-placed and powerful individuals. Nonetheless, the view of the news blogosphere in Korea tended to oppose that of the mainstream media, suggesting that the internet can still play a role in challenging convention and tradition in the media. Whereas the mainstream media were conservative, the majority of bloggers had politically progressive or centrist ideologies. Even the journalists who formed the core of influential bloggers were reporters from smaller media outlets or were internet news or full-time bloggers who had an antagonistic relationship with the mainstream media. The Reporter Network could achieve ASIR effects for online protests against U.S. beef imports through the way it facilitated close interactions among news bloggers and between news bloggers and readers. The interaction among these groups was further promoted through various platform technologies and the reputation system of blogs.

When considering the news-blogosphere and the influence of ‘male and elite bloggers’ on news production and diffusion, Tremayne and his colleagues (2006) also reported some similar findings to this study in their work addressing the network structure of the blogosphere at the time of the Iraq War. Their examination of 79 blogs and 899 posts concerning the war in Iraq revealed that bloggers on this topic were overwhelmingly male, with 99% of posts coded as such. Furthermore, the bloggers in their sample were also highly educated citizens who lived in metropolitan areas, and who had graduate or law school degrees. The most common professions for these bloggers to have were found in academia, as professional writers or journalists, or in the technology industry. The blogger demographics of news blogosphere content creation suggest that researchers should closely examine how the dominance of male, elite, and urban bloggers relates specifically to the issues, topics, and subjects that attract their attention. It is probable that there will be different patterns of power blogger demographics in the soft and entertainment news blogosphere.

Thirdly, this study’s findings related to the network structure of news bloggers suggest a need for reconsideration of the Balkanization thesis. This thesis posits that when considering a critical sociopolitical issue, the online public sphere will inevitably be polarized into two opposing factions and will not allow room for neutrality positions. The thesis is based on the view that the online space is fundamentally a flawed means of achieving democracy because it promotes the use of limited discussion and extreme claims. Yet, the bloggers in the Reporter Network went beyond a polarized structure and accommodated the presence of neutral groups. In fact, the emergence of a neutral group in the midst of the candlelight demonstrations is an extraordinary phenomenon. Continuous exchange of opinions and the accumulation of trust among bloggers in the news blogosphere were the key factor in this extraordinary feat. In addition, bloggers’ and netizens’ trust in key bloggers had considerable influence on the formation and expansion of the neutral position group, suggesting that potential Balkanization of the online public sphere is controllable by using efficient online platforms and building trust among the participants.
Recently, social media have been promoting networked individualism, a state in which individuals express themselves, share experiences with others, and ultimately pursue common objectives through social media. There has been growing interest in news blogs because of the rapid growth of this form of independent journalism and because news blogs have transformed individuals from passive news consumers into news producers. As a result of this, news bloggers have started to receive close attention as powerful agenda-setters and public opinion builders because their work can and does embrace a diverse range of topics that have been neglected by the traditional media and because they have positioned themselves as staunch critics of the mainstream media. The news blogosphere shows vast potential for even more dynamic civic journalism, although this is admittedly somewhat context dependent.

Despite the current study’s contributions to the literature, it cannot be considered as comprehensive in its present form. For example, we have not included a comparative study of blogs, conservative media, and governmental agencies in terms of how they conducted news dissemination and diffusion. Although intercoder reliability is a critical component of content analysis, only a single coder was used given that present study is exploratory. We acknowledge this limitation. However, coding schemes were thoroughly discussed during the data collection period.

References


**Supporting Information**

Additional supporting information may be found in the online version of this article:
The network characteristics in May and June

Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting materials supplied by the authors. Any queries (other than missing material) should be directed to the corresponding author for the article.
About the Authors

Chang Woo-young is an Assistant Professor in the Department of Political Science, Catholic University of Daegu, South Korea. He serves as a project director of the Korean Association of Party Politics.

Address: Department of Political Science, Catholic University of Daegu, Geumrak-ro 5, Hayang-eup, Gyeongsan-si, Gyeongsangbuk-do, Zip code: 712-702, Republic of Korea. Email: changwyng@yahoo.com

Han Woo Park (Corresponding Author) is an Associate Professor in the Department of Media & Communication, YeungNam University, South Korea. He serves as coeditor of J Contemporary Eastern Asia and sits on editorial Boards of Scientometrics, Int’l J of Internet Science, CollNet J of Scientometrics & Information Management.

Address: Department of Media & Communication, YeungNam University, 214-1 Dae-dong, Gyeongsan-si, Gyeongsangbuk-do, Zip code: 712-749, Republic of Korea. Email: hanpark@ynu.ac.kr, Homepage: http://www.hanpark.net