The Role of Social Media in Protest Participation:
The Case of Candlelight Vigils in South Korea

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This study examines the role of social media and mechanisms through which it can mobilize citizens to participate in protests. Focusing specifically on Facebook as a social media platform, this study uses survey data collected in South Korea during the 2016 candlelight vigils (N = 922). Findings suggest that the frequency of Facebook use was strongly and positively associated with protest activity. Yet, further path analysis reveals no direct effect of Facebook use on protest participation. Instead, Facebook use facilitated purposeful news consumption and political expression on the site, which in turn facilitated protest participation. Despite the prevalence of incidental exposure to news on Facebook, incidental exposure did not breed further political action, such as expressing political opinions on Facebook.

Keywords: *protest, Facebook, purposeful news consumption, incidental news exposure, South Korea*

On March 10, 2017, South Korea's constitutional court upheld the decision by the country's parliament to impeach President Park Geun-hye over a corruption scandal. This unprecedented political scandal was first revealed in October 2016, after which a series of million-strong protests were held demanding President Park to step down. These protests pushed lawmakers to cast ballots to impeach the president for the first time in Korean history.

Noteworthy here is that social media seems to have played a crucial role in this entire process. As journalism professor Kim Seo-joong at SungKongHoe University stated, "Social media made it possible for citizens to take to the streets in an unprecedentedly large scale" (Ock, 2017, para. 10). Indeed, a growing amount of research speaks to the role of social media in mobilizing citizen protests (e.g., Tufekci & Wilson, 2012; Valenzuela, 2013). However, relatively little research has been conducted on the specific ways through which social media use facilitates protest activities (for exceptions, see Valenzuela, 2013; Valenzuela, Arriagada, & Scherman, 2012). This article seeks to provide a more comprehensive understanding of this issue by examining citizen participation in the 2016 South Korean candlelight vigils as a case study.

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The contribution of this study to the literature is twofold. First, this study expands the conceptualization of social media news consumption. Previous studies have focused on the mechanism of purposeful (or active) social media news consumption in the political information acquisition process as the basis for individual protest participation (e.g., Valenzuela, 2013; Valenzuela et al., 2012). Instead, this study unpacks Facebook news consumption activity into both purposeful news consumption and incidental news exposure. Despite evidence that individuals are incidentally exposed to political information on Facebook (e.g., Bode, 2016; Pew Research Center, 2014), no study has explored whether and how this type of news exposure may compare to purposeful news exposure in its relation to protest activity.

Second, studying the context of the recent candlelight vigils in South Korea addresses an important criticism by Boulianne (2015) on the literature regarding social media's effects on protest participation. In her recent meta-analysis (Boulianne, 2015), she argues that researchers have used composite indexes for protest participation by lumping multiple types of political participation together, including core protest activities (e.g., street demonstrations and marches) and other types of political activities (e.g., volunteering for a political party, attending political debates, signing a petition). This makes it impossible to determine the true effects of social media on core protest activities. In part, composite indexes may have been used because previous protests movements have consisted of events with ambiguous starting and ending points, making it difficult to accurately measure core protest activities. Instead, the candlelight vigils in South Korea consisted of a series of discrete protests that occurred every Saturday during a certain period of time. Because of this, the current study can use the number of protests an individual participated in as the main outcome variable. By doing so, this study can examine the effects of Facebook news consumption on actual protest participation rather than political participation in general.

By filling these gaps in the extant literature, this study can contribute to a better understanding of the role of social media in protest participation. This study specifically focuses on the role of Facebook, which has been deemed as a main force behind recent social movements (Lim, 2012), in mobilizing a large population to voluntarily participate in recent massive candlelight vigils in South Korea.

Political Scandal in Korea

The unprecedented scandal that led to the impeachment of the South Korean president revolves around the president's relationship with her long-time friend Choi Soon-sil, the daughter of a South Korean Shamanistic cult leader. Even though Ms. Choi had neither held any official government position nor had any governing expertise, she had been acting as shadow president, having access to confidential government documents without security clearance and influencing presidential decision making (Seo, 2016). Indeed, when strong suspicion over this relationship was first raised by Kukmin Ilbo of a South Korean daily newspaper, the president attempted to cover the suspicion by all means. The government's oppressive policy silenced mainstream media; yet, it could not silence social media (Jung, 2016). In 2016, a hashtag campaign by Kim Hyung-Min brought this issue to the public discourse (Jung, 2016). Kim, who is one of the most influential personalities on Facebook in South Korea, suggested including a hashtag when creating or sharing social media content, including content that otherwise had nothing to do with politics. The suggested hashtag was #WhatAboutChoiSoonSil?, and it became so popular that the

mainstream media renewed interest in the story (Jung, 2016). Then, Facebook users began to share and disseminate mainstream news stories about the topic through Facebook. With this collaborative process of mass media and social media (i.e., the political information cycle; Chadwick, 2011), the full picture of the "Choi-Park" scandal began to emerge. This led to massive ongoing protests in the form of candlelight vigils.

The first candlelight vigil on October 29 was relatively small, with only 20,000 participants, but the crowd grew rapidly in the weeks that followed. In sum, there were a total of 10 protests that occurred each Saturday between October 29 to December 31. Because of the mobilizing power of Facebook, protests become especially large. For instance, the mega-protest on December 3 had roughly 2.3 million protesters (Ock & Bak, 2017). This series of massive candlelight vigils led to the impeachment of President Park.

Social Media and Protest Participation

The majority of studies has suggested that social media tends to facilitate political participation (for a recent meta-analysis, see Boulianne, 2015). For instance, Xenos, Vromen, and Loader (2014) found that general social media use (i.e., time spent with social media platforms) is the strongest predictor of political engagement in three advanced democracies. In addition, social media facilitates citizens to engage in protest activity as one distinct form of political participation (see Boulianne, 2015).

Traditional mainstream media tend to either ignore protest events (e.g., McCarthy, McPhail, & Smith, 1996) or marginalize protest activities by using a "protest paradigm" (i.e., a type of coverage that advocates the status quo and delegitimizes or disparages protesters or protest events that threaten the status quo; Chan & Lee, 1984; Gitlin, 1980). To overthrow the protest paradigm typically found in traditional mainstream media, protesters including activists often turn to social media to bypass the gatekeepers of traditional media and to create and disseminate their own messages (Harlow & Johnson, 2011; Reuter & Szakonyi, 2015). Especially during a time of nationwide protest, this kind of activity often becomes more prevalent in social media. Consequently, a substantial amount of protest-related information (e.g., mobilizing information or injustice stories that may provoke the anger of citizens) circulates in social media. This creates an increasing chance for users to pick up protest-related information, and it may encourage users to express their political opinions (Eltantawy & Wiest, 2011). Therefore, it is fair to predict that social media use is positively related to protest participation.

Yet, different social media platforms afford different functions and attract different audiences (Pasek, More, & Romer, 2009; Treem & Leonardi, 2013). In this study, I focus on the role of Facebook because it is overwhelmingly the most popular social media platform in South Korea. A recent South Korean survey suggests that out of the 51 million people in the South Korean population, roughly 16 million are active Facebook users (DMC Media, 2015). In addition, 59.8% of social media users in South Korea used Facebook more frequently than any other social media platform. Thus, focusing on Facebook is appropriate for this case study in South Korea.

H1:   The frequency of Facebook use will be positively related to protest behavior.

This hypothesis, however, does not specify the mechanisms through which Facebook promotes protests. The mere correlation between amount of Facebook use and protest behavior does not tell us why and how an individual's Facebook usage can lead to protest behavior. In what follows, structural pathways to protest participation will be discussed.

Facebook as a Source of Political Information

Facebook can lead to protest behavior by serving as a forum for political information or news (Eltantawy & Wiest, 2011; Howard & Hussain, 2011; Segerberg & Bennett, 2011; Tufekci & Wilson, 2012; Valenzuela, 2013). Facebook users often receive breaking news in real time, which can provoke political discussions and facilitate protest participation (Howard & Hussain, 2011; Lotan, Graeff, Ananny, Gaffney, & Pearce, 2011; Tufekci & Wilson, 2012). For instance, news of the death of a young Egyptian blogger named Khaled Said, whom police beat to death for exposing their corruption, was rapidly spread via social media, and protests were launched during the Arab Spring in 2011 (Eltantawy & Wiest, 2011). The swift dissemination of information thereby helps the public to remain informed, which often leads to further political action, such as protests. In addition, social media users can also receive protest-mobilizing information, which is a type of information that is often absent from mainstream news media because of norms of neutrality in journalistic practices (Hoffman, 2006). Indeed, exposure to mobilizing information on Facebook, including instrumental information (i.e., identificational, locational, and tactical information) (for these terms, see Lemert, 1981) on various aspects of social justice, provides opportunities for individuals to participate in protests (Lemert, 1981). Facebook plays a critical role as an information hub, especially when mainstream news media are not trusted (Papacharissi, 2015). Through platforms like Facebook, the public can quickly become aware of illegality and corruption that may otherwise be buried by the mainstream media (Reuter & Szakonyi, 2015).

Importantly, seeing political information on social media is unique from seeing it on other digital media platforms such as blogs and social movement websites. Social media users are exposed to political information incidentally, through their social network ties (Pew Research Center, 2014). On Facebook, online social networks largely mirror offline social networks, which are mostly driven by factors unrelated to politics (e.g., family, school, and work). In addition, content on Facebook is composed not just of political content; an algorithm determines what users see when they access Facebook, which can be nonpolitical content (e.g., sports, gossip, music) and political content (Bode, 2016; Theocharis & Lowe, Van Deth, & García-Albacete, 2015). Such a media environment increases the probability for individuals to be incidentally exposed to political information, as political content is pushed to users by their social networks (Bode, 2016; Tang & Lee, 2013). Given that incidental exposure to political information is common on Facebook, confining political information exposure to purely active news consumption (as has been done in many previous studies) would not adequately reflect the current dynamic on Facebook. Thus, this article unpacks Facebook news consumption into both purposeful news consumption and incidental news exposure.

Expressive Behaviors as Mediating Mechanisms

However, news exposure per se does not necessarily lead to political participation (Bimber, 2001). The effect of news consumption on political participation tends to hold strong in several studies, but many scholars suggest that effects are mostly indirect (e.g., Gil de Zúñiga & Valenzuela, 2011; Shah, Cho, Eveland, & Kwak, 2005; Shah et al., 2007). That is, news consumption indirectly promotes individual civic and political participation by encouraging citizens to express their political opinions, which in turn leads to political participation.

Other studies suggest that the news serves as a major topic of discussion, providing opportunities for individuals to learn about and reflect on social issues (Eveland, Shah, & Kwak, 2003; Mutz & Martin, 2001). As citizens exchange information, they elaborate on their arguments and synthesize previously acquired political information (Huckfeldt & Sprague, 1995; Shah et al., 2007). Previous work suggests that this discussion leads individuals to engage in political participatory activities (Eveland et al., 2003; Mutz & Martin, 2001; Shah et al., 2007).

Individuals often express their political views through social media such as Facebook; expressing political opinions on Facebook is a regular activity for many social media users (Halpern & Gibbs, 2013; Pew Research Center, 2016). Expressing political opinions through Facebook can take various forms: It can include posting a news story, blog post, or video clip or image and making political comments on content (Edgerly, Thorson, Bighash, & Hannah, 2016). All of these expressive activities on Facebook serve as important pathways to participation. As Pingree (2007) stated, "expression, not reception may be the first step toward better citizenship" (p. 449) because expression involves self-reflective processes in information consumption. In other words, by engaging in politically expressive activities, an individual may make the transition from observer to participant (Gil de Zúñiga, Molyneux, & Zheng, 2014). Expressive behaviors on social media play a particularly critical role in emerging democracies (e.g., South Korea), where institutional forms of political participation are not firmly established (Rojas & Puig-i-Abril, 2009). In such situations, social media, such as Facebook, provide an ideal setting for expressing one's opinion and interacting with others, which may in turn stimulate a variety of offline political actions (Rojas & Puig-i-Abril, 2009).

In sum, expressing political opinions on Facebook can serve to transform citizens from political observers to participants, which can in turn lead to further political action. Thus, I propose two possible serial mediators in the relationship between the frequency of Facebook use and protest participation. More specifically, news exposure (purposeful and incidental) on Facebook, followed by political expression on Facebook, serve as mediators in the relationship between the frequency of Facebook use and protest participation. These hypotheses are broken down into the effect of purposeful news consumption (H2a) and incidental news exposure (H2b):

H2a: *The frequency of Facebook use on protest participation will be serially mediated through purposeful news consumption on Facebook and political expression on Facebook.*

H2b: The frequency of Facebook use on protest participation will be serially mediated through incidental news exposure on Facebook and political expression on Facebook.

Method

Sample

This study draws on survey data from a representative sample of South Korean adults collected between December 19 and December 23, 2016 (a few days after the eighth candlelight vigil). The survey was created by the author and administered by SurveyMonkey, a reputable survey sampling company with online panels of respondents who voluntarily participate in surveys to receive compensation from the firm. A total of 932 respondents from its South Korean national panel were recruited. This sample mirrors South Korean census data on key demographic variables (54.1% male; median income of KRW 40,000,000–49,999,999). However, the age distribution was slightly skewed toward younger individuals (18–29: 20.6%; 30–39: 30%; 40–49: 23.5%; 50– : 25.8%), and the education distribution was slightly skewed toward higher education (54.6% have a college degree) compared with the Korean population (37.8% have a college degree). Of those 932 respondents who completed the survey, 10 respondents (1% of the sample) were excluded because they did not sufficiently complete the questionnaire. Subsequent analysis revealed no significant discrepancies between the whole sample and the final sample used in the analysis.

Criterion Variable: Protest Participation

Protest behavior can be diverse, including activities such as boycotts, strikes, and even violence (Tarrow, 1995). However, in this article, protest behavior is confined to engagement in street demonstrations. As Boulianne (2015) pointed out in her meta-analysis, most studies have not distinguished protest-type activities from other forms of political activities, which often makes it difficult to isolate social media's effect on protest-type activities. Thus, this study focuses on actual attendance at candlelight vigils. Respondents were asked whether they had participated in candlelight vigils on a scale ranging from 0 = never to 7 = seven times or more ($M = 0.92$, $SD = 1.69$)

Facebook Use Variables

Overall Facebook Use. For the general assessment of Facebook use, the researcher first asked respondents if they had a registered Facebook account. The 80.4% of respondents that had an account were asked about their Facebook use frequency, ranging from 1 = accessing the website less than once a month to 8 = multiple times per day ($M = 4.87$, $SD = 2.64$), and about the total time spent on Facebook on a typical day, ranging from 1 = not having used it for a week to 6 = using it for more than 90 minutes per day ($M = 3.12$, $SD = 1.36$).

Incidental News Exposure on Facebook. To measure frequency of incidental exposure to news on Facebook, individuals were asked, "During past two months, when you use Facebook, how often do you come across news and information on current events, public issues, or politics when you may have been

going online for a purpose other than to get the news?" Answers were measured on a 5-point response scale ranging from 1 = *never* to 5 = *very frequently* (*M* = 2.92, *SD* = 1.27). Almost two-thirds of the sample (64.2%) indicated that they had been incidentally exposed to such news and information often, frequently, or very frequently.

Purposeful News Consumption on Facebook. To measure Facebook use as a channel for news consumption, two questions were used. Respondents were asked how frequently they had used Facebook for (a) news consumption and (b) obtaining information on political issues in the past two months, measured on an 8-point scale ranging from 0 = *never* to 7 = *multiple times per day* (*M* = 4.46, *SD* = 2.55). The correlation between these two items was .91.

Political Expression on Facebook. Respondents were asked how often in the past two months they had used Facebook for (a) expressing an opinion on political issues or public affairs, (b) spreading information about the current political scandal, and (c) spreading information about the protest, measured on an 8-point response scale ranging from 0 = *never* to 7 = *multiple times per day*. These items were combined to create a single political expression index (*M* = 2.28, *SD* = 2.41, Cronbach's α = .93).

Control Variables

To examine the unique relationship between Facebook use and protest behavior, several control variables were measured. These included factors that have long been considered to influence individual protest participation (for details, see della Porta & Diani, 2006; Valenzuela, 2013).

Grievances. Respondents were asked to report how often the incumbent government had made them feel "angry," "outraged," and "frustrated," measured on a 5-point response scale ranging from 1 = *never* to 5 = *very frequently*. These items were combined to form an additive scale (*M* = 4.22, *SD* = 0.96, Cronbach's α = .96). Respondents tended to feel strong negative emotions toward the incumbent government.

Values. The impact of political and cultural values on protest activity was operationalized using two variables: political ideology and postmaterialist values. For political ideology, respondents were asked to rate their ideology on a 10-point scale ranging from 1 = *left wing* to 10 = *right wing*. The average score was 4.82 (*SD* = 1.73) and the median was 4, suggesting that respondents tended to be moderates. Postmaterialist values were gauged using Inglehart's (1990) original 12-item index; respondents were asked to respond to three batteries of questions, each containing two materialist and two postmaterialist items. Subsequently, responses were combined to form an index in which postmaterialist responses were coded higher than materialist responses.

Resources. Previous research suggests that members of dominant groups in a society (e.g., those who are male, rich, and college educated) are more likely to engage in protests because they tend to have greater communicative and organizational abilities, along with more time (e.g., Verba, Schlozman, & Brady, 1995). Thus, demographic variables such as gender, education, and income were measured; distributions were consistent with the South Korean population. In addition, previous research suggests

that individuals are more likely to engage in social movements if they belong to organizations such as unions, nongovernmental organizations, and social movement organizations (Valenzuela, 2013; Verba et al., 1995). Thus, participation in civic groups was measured by asking how frequently respondents had been involved in these groups, measured on a 5-point response scale ranging from 1 = *never* to 5 = *very often* (M = 1.55, SD = 0.86, Cronbach's α = .88).

Political Interest. Respondents' interest in politics was measured on a 5-point scale ranging from 1 = *not at all interested* to 5 = *very interested* (M = 3.16, SD = 1.03).

News Media Use. Respondents were asked to estimate how frequently they have used three different types media for news consumption in the past two months, with an 8-point scale ranging from never (0) to multiple times per day (7): newspapers (M = 3.57, SD = 2.33), TV (M = 5.64, SD = 1.22), and the Internet (M = 6.14, SD = 1.13). Responses suggest that people consumed recent political news frequently through the Internet.

News Attention. Along with amount of news consumption, the level of attention devoted to news was measured. Respondents were asked to indicate how much attention, if any, they usually paid to news on a scale ranging from 0 = *none at all* to 4 = *very much* (M = 2.57, SD = 0.86).

Analytic Procedure

To test H1, ordinary least squares (OLS) regression was conducted. The control variables were entered simultaneously with Facebook use variables to isolate the unique relationship between Facebook use and protest behavior while holding all other variables constant. Subsequently, to explore the specific mechanisms through which Facebook use influences protest behavior, structural equation modeling was conducted using the lavaan package in R (Rosseel, 2012). Model fit was assessed by using several fit indicators, including the maximum likelihood chi-square, Tucker-Lewis index (TLI), comparative fit index (CFI), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root-mean-square error of approximation (RMSEA), and ratio of chi-square to degrees of freedom (χ^2/df). Both the global fit of the model and the significance of the individual path coefficients were assessed to determine whether the hypotheses were supported (see Figure 1). The effects of control variables (which were the same control variables as used in the regression model) on endogenous and exogenous variables were residualized. For the mediation analysis, the bootstrapping technique was used with 10,000 bootstrap samples at a 95% bias-corrected percentile.

Results

To explore the relative impact of Facebook use on protest participation, OLS regression was run with demographic variables, political variables, news media use variables, and Facebook use variables as predictors. Holding everything else equal, respondents having a Facebook account did not engage in more protest activity than respondents without a Facebook account (p = .98), which suggests that merely having a Facebook account does not account for protest participation (see Table 1). Thus, another regression model was run for only those with a Facebook account, which accounted for 80.3% of the

whole sample. The results indicate that civic group participation, newspaper use, and the frequency of Facebook use are positively related to protest participation. Specifically, the frequency of Facebook use is one of the major predictors of an individual's protest participation (β = .07, p = .004), supporting H1 (for details, see Table 1). These results suggest that there is a positive relationship between Facebook use and protest participation, and this relationship is relatively strong even when controlling for all other factors that are known to spur protest activity, such as resources, grievance, and ideologies.

Table 1. Ordinary Least Squares Regression Model Predicting Protest Participation.

	Total sample	Those with a Facebook account
	B (SE)	B (SE)
Grievances	.11 (.06)	.13 (.07)
Values:		
Right-wing ideology	.05 (.03)	.06 (.03)
Postmaterialist values	.10 (.04)*	.06 (.05)
Resources:		
Male	.13 (.10)	.15 (.12)
Education	−.06 (.06)	−.06 (.06)
Income	. 00 (.03)	−.02 (.03)
Civic group participation	.77 (.06)***	.75 (.07)***
Political interest	.15 (.06)*	.12 (.07)
News media:		
News attention	.06 (.08)	.06 (.09)
Newspaper exposure	.07 (.03)**	.08 (.03)**
TV news exposure	−.04 (.05)	−.05 (.06)
Online news exposure	−.06 (.05)	−.06 (.07)
Facebook use:		
With a Facebook account	.00 (.13)	–
Frequency of Facebook use	–	.07 (.03)**
Total adjusted R^2	.21	.24
n	922	740

Note. Cell entries are unstandardized regression coefficients with standard errors in parentheses.
*p < .05. **p < .01. ***p < .001.

Yet, this does not necessarily suggest that the frequency of Facebook use has a direct effect on protest participation. To test H2a and H2b, a path analysis was run to further explore the mediating mechanisms underlying the impact of Facebook use on protest participation, where frequency of Facebook use leads to news exposure (purposeful and incidental exposure) on Facebook, which leads to political expression on Facebook, which leads to protest participation (see Figure 1). Overall, the results did not show a satisfactory fit for the proposed model (χ^2 = 280.77; p < .001, df = 50; CFI = .96; TLI = .90, GFI = .94; AGFI = .73; RMSEA = .08; χ^2/df = 5.62). There was significant serial mediating effect of frequency of Facebook use leading to purposeful news consumption on Facebook, leading to political expression on Facebook, leading to protest participation (β = .11, p < .001), providing support for H2a. However, serial

mediating mechanism of frequency of Facebook use leading to incidental news exposure on Facebook, leading to political expression on Facebook, leading to protest participation did not turn out to be significant (β = .00, p = .98), failing to provide support for H2b. Frequency of Facebook use was significantly related to incidental news exposure on Facebook (β = .92, p < .001), but incidental news exposure on Facebook was not significantly related to political expression on Facebook (β = .00, p = .98).
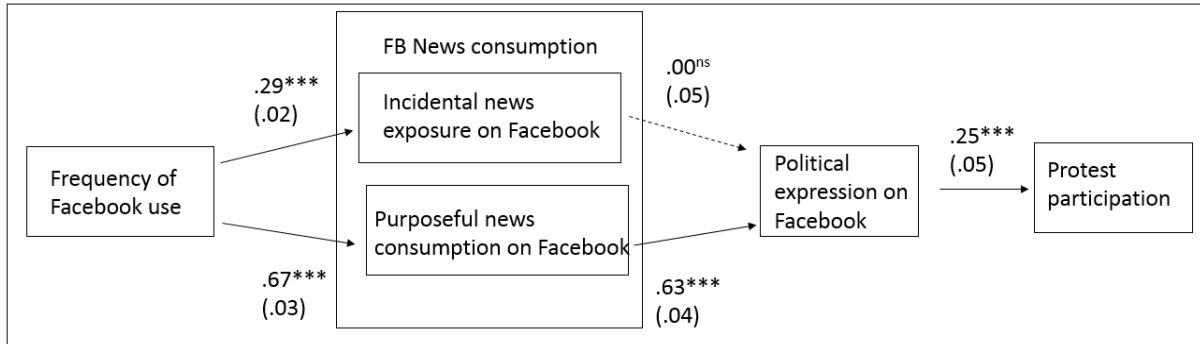

Figure 1. Initial path model of the impact of Facebook use on protest participation. Entries are standardized path coefficients with standard errors in parentheses. Fit statistics: χ^2 = 280.77; p < .001, df = 50; CFI = .96; TLI = .90, GFI = .94; AGFI = .73; RMSEA = .08, 90% CI [.07, .09]; χ^2/df = 5.62. ***p < .001.

Using R, a revised model was estimated by removing this nonsignificant path from the initially proposed model (see Figure 2). The statistical analysis showed a good model fit according to the fit standards. Although the chi-square value was significant (χ^2 = 92.00, p = .001, df = 46), all the values except AGFI are within a reasonable range (CFI = .99; TLI = .98; GFI = .97; RMSEA = .04; χ^2/df = 2.00). The AGFI level of 0.88 is close to the recommended threshold (0.9). Thus, this revised model (frequency of Facebook use leading to purposeful news consumption on Facebook, leading to political expression on Facebook, leading to protest participation; see Figure 2) was selected as the final model.
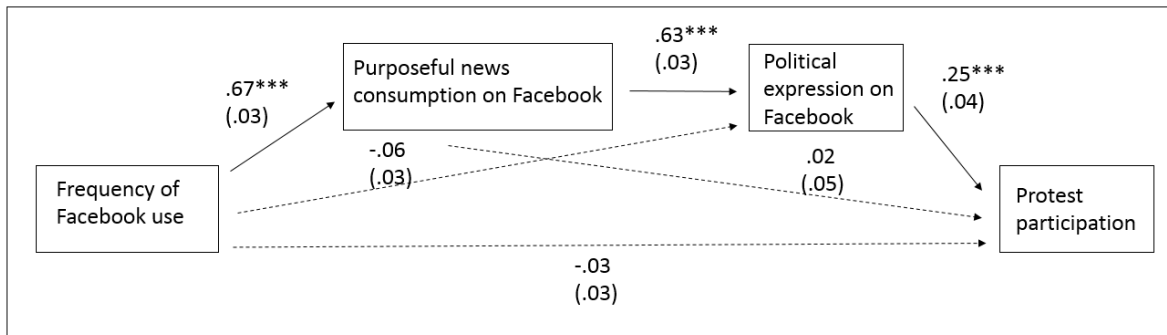

Figure 2. Final path model of the impact of Facebook use on protest participation. Entries are standardized path coefficients with standard errors in parentheses. Fit statistics: χ^2 = 92.00, p =

.001; df = 46; CFI = .99; TLI = .98; GFI = .97; AGFI = .88; RMSEA = .04, 90% CI [.03, .05]; χ^2/df = 2.00. ∗∗∗p <.001.

In addition to the global fit of the model, all individual path coefficients were significant (p < .001). Frequency of Facebook use was positively related to purposeful news consumption on Facebook (β = .67, p < .001). Purposeful news consumption on Facebook was positively related to political expression on Facebook (β = .63, p < .001). In turn, political expression on Facebook was positively associated with participating in protests (β = .25, p < .001).

To test the serial mediating mechanism, I distinguished the total effects of Facebook use on protest participation by estimating direct and indirect effects separately. The results supported the hypothesized serial mediating effect (β = .11, p < .001), 95% CI [.06, 15]. As the CI does not contain zero, H2a was supported. The direct effect of Facebook use on protest participation (β = −.03, p = .38) and the indirect effects not hypothesized in the original model were not significant (see Table 2). This result indicates that the effects of general Facebook use on protest participation were mediated only by the hypothesized serial mediating mechanism, when all other variables were taken into account (see Table 2). This model, as a whole, accounted for 31.2% of the variance in protest participation.

Table 2. Indirect Effects of Facebook Use on Protest Participation.

Indirect effects	Boot. estimates			Boot. 95% CI	
	B	SE	p	Lower	Upper
Facebook use → Exposure to political information on Facebook → Protest participation	.01	.03	.69	−.04	.07
Facebook use → Political expression on Facebook → Protest participation	−.01	.01	.13	−.03	.001
Facebook use → Exposure to political information on Facebook → Political expression on Facebook → Protest participation	.11	.02	.000***	.07	.14
Total indirect effects (Facebook use → Protest participation)	.11	.03	.000***	.06	.15

∗∗∗p < .001.

Discussion

The overall purpose of this study was to investigate (a) the effects of Facebook use on protest participation and (b) through what mechanism Facebook use leads to protest participation. Unlike much prior research, which examined the mechanism of purposeful Facebook news consumption activity, this study distinguished Facebook news consumption activity by both incidental exposure and purposeful news consumption and explored how these types of activities play a role in protest participation. This approach allows us to more thoroughly investigate how Facebook use plays a role in protest participation.

Based on prior research, I first hypothesized that a higher frequency of Facebook use would be positively related to protest participation, controlling for all other explanatory variables. Then, I tested the specific mechanisms of Facebook use that lead to protest participation. I hypothesized that the frequency of Facebook use would facilitate news exposure (purposeful and incidental); in turn, this would facilitate political expression on Facebook, and this would promote protest participation. The overall conclusion is that the frequency of Facebook use was strongly positively associated with protest activity, even controlling for all other factors that are known to spur protest activity; however, there was no direct effect of Facebook use on protest participation. When the total effects of Facebook use on protest participation were broken into direct and indirect effects, only the hypothesized serial mediating mechanism (Facebook use to purposeful news consumption on Facebook to political expression on Facebook to protest participation) was significant. This result is consistent with other work that suggests social media use indirectly, but not directly, affects political participation (e.g., Gil de Zúñiga & Valenzuela, 2011; Shah et al., 2005, 2007; Valenzuela, 2013; Valenzuela et al., 2012).

However, this study builds on previous literature with several clear theoretical implications. Particularly, this study reveals how news consumption on Facebook affects protest participation. This study is not new in exploring mechanisms; however, this study expands on previous work (see Valenzuela, 2013; Valenzuela et al., 2012) in that (a) Facebook news consumption activity is more accurately broken into purposeful and incidental news exposure, and (b) these activities are examined in how they separately influence protest participation. One important implication of this study is that despite prevalence of incidental exposure to news on Facebook (e.g., Bode, 2016; Pew Research Center, 2014), incidental exposure does not seem to breed further political action, including expressing political opinions on Facebook. This suggests that although exposure to political information may be the first step toward political participation, it may not be a sufficient condition for sustained collective action. Political participatory activities such as expressing one's political voice on Facebook and actually engaging in street demonstrations often require greater commitment (Diani, 2000). Of course, this does not indicate that incidental exposure to political information plays no role in political awareness. However, when it comes to participation, this study suggests that news consumption best increases the probability that individuals will take further political action when news is purposefully sought.

Additionally, this study points to several characteristics that may make certain protests particularly fruitful to study. The 2016 South Korean candlelight vigils serve as a great case study for several reasons. First, South Korea has one of the world's highest social media use rates, facilitating millions of citizens to use Facebook throughout the period of these nationwide candlelight vigils. In addition, perhaps more importantly, protest participation could be measured by the number of candlelight vigils an individual participated in, so the effects on the core type of protest participation (i.e., participating in street demonstrations) could be isolated from other types of political actions (e.g., signing a petition). Such measurements, if available, may be useful to implement in future research.

It is worth noting the limitations of this study to examine how research issues can be addressed in the future. First, given the cross-sectional nature of the data collection, it is difficult to draw any causal inferences among variables. Correlations between certain forms of Facebook use and protest activity are insufficient to make strong empirical claims of causal relationships. Although the paths theorized in this

model suggest that news consumption leads to politically expressive activities, and this direction (i.e., news consumption to expression) has largely received empirical support (e.g., Gil de Zúñiga & Valenzuela, 2011; Shah et al., 2005, 2007), we cannot rule out the possibility that the causal order is reversed. In other words, engaging in politically expressive activities may lead people to actively seek out further political information. Path analysis per se does not ensure a causal relation. Thus, paths theorized in the model should be interpreted with caution. Future research may adopt a longitudinal design to draw causal inferences with greater confidence.

Additional limitations may arise from the general pattern of people's Facebook use. Namely, people often habitually use Facebook (Vishwanath, 2014), so it is often difficult to accurately remember and parse out which news content they consumed on purpose. Given that people's self-reports of their exposure to news are often incorrect (Prior, 2009; Vraga, Bode, & Troller-Renfree, 2016), habitual Facebook use may make it even more difficult for users to correctly categorize purposeful news consumption and incidental exposure to news. This is especially the case given a national political scandal such as this one, where news was everywhere, including Facebook. Thus, it may have been difficult for users to correctly recall where they got information and to what extent they got news purposefully or incidentally. In this regard, a method that may capture in-the-moment data (e.g., a media diary) rather than retrospective reporting may be helpful in more accurately capturing amount of exposure to social media content.

Limitations notwithstanding, this research provides additional evidence that social media may serve as a mobilizing medium for protest participation. More importantly, this study expands the current literature on the role of social media in protest participation by examining how purposeful and incidental news exposure on Facebook separately influence protest participation. Given the growing interest in the role of social media in civic engagement, this study may serve as an important step to expand our understanding of how social media facilitates citizens' engagement in protest behavior.

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