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## Predicting Public Interest Issue Campaign Participation on Social Media

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### Abstract

This study investigates what motivates people to participate in a social media campaign in the context of animal protection issues. Structural equation modeling (SEM) tested a proposed research model with survey data from 326 respondents. Situational awareness, participation benefits, and social ties influence were positive predictors of social media campaign participation intentions. Situational awareness also partially mediates the relationship between participation benefits and participation intentions as well as strong ties influence and participation intentions. When designing social media campaigns, public interest communicators should raise situational awareness and emphasize participation benefits. Messages shared through social networks, especially via strong ties, also may be more effective than those posted only on official websites or social networking sites (SNSs).

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## Introduction

Digital media provide new and unique opportunities for mobilization of publics around public interest issues since anyone can easily move these issues onto the public agenda (Aral & Walker, 2014; Jenkins, Shresthova, Gamber-Thompson, Kligler-Vilenchik, & Zimmerman, 2016). Networked communities where people can easily interact with others who share their interests are transforming public communication and mobilization (Parks & Floyd, 1996; Wang & Fesenmaier, 2004; Wilson, 1990). In particular, social networking sites (SNS) are changing the dynamics of public mobilization such as providing cost-reducing mechanisms and societal

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support structures as well as removing some of the constraints of historical social movements because of SNS's ability to overcome the limitations of time, space, and personal risk (Carty, 2015; Dencik & Leistert, 2015; McCarthy & Zald, 1977; Oberschall, 1973). In such online communities and social networks, users can easily mobilize around a public interest issue without formal organization or leadership as these spaces are largely beyond the control of governments and corporations that had monopolized the communication channels in the past (Aral & Walker, 2014; Castells, 2015; Hon, 2015; Shirky, 2008). Networked social movements on public interest issues spread by contagion and viral diffusion of ideas that attempt to raise awareness about social issues and call for social change through collective action such as online commenting, letter writing, petitioning, and fundraising (Brunsting & Postmes, 2002; Castells, 2015; Postmes & Brunsting, 2002).

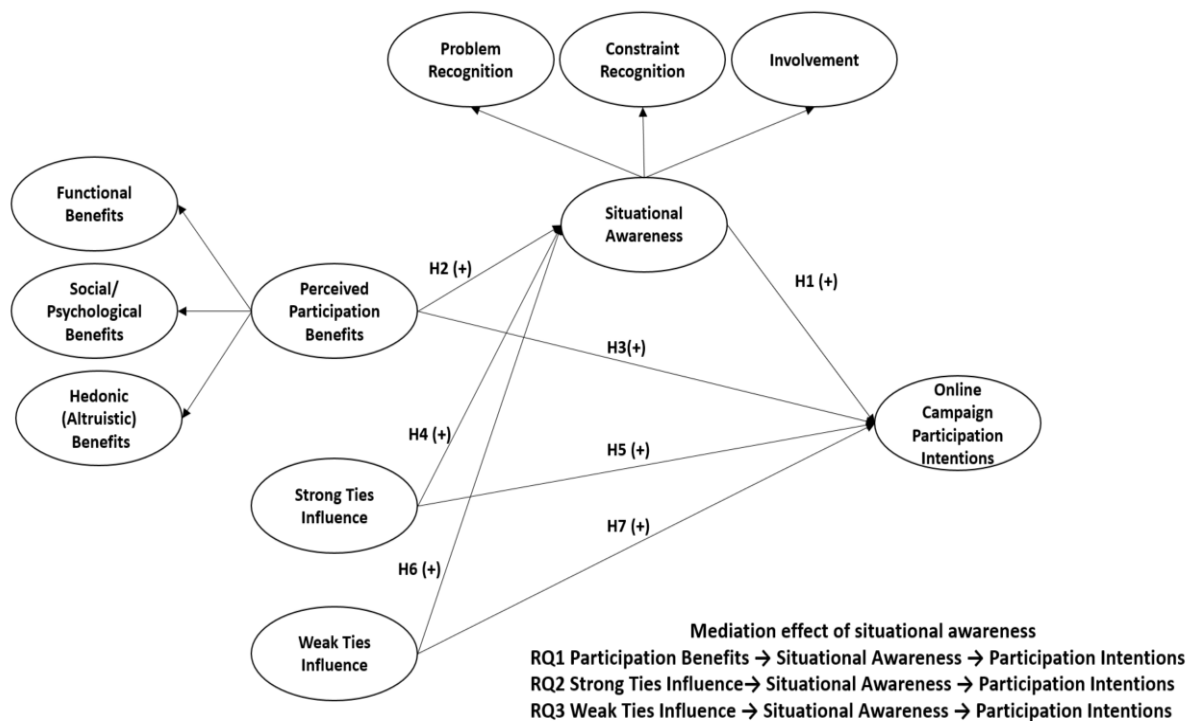
Earl and Kimport (2011) called the advantages of digital media *leveraged affordances*, or the capabilities provided by a technology that were not possible with prior technologies. However, not all public interest issue campaigns on social media have been successful, especially in moving people from issue awareness to supportive behavioral outcomes (Dencik & Leistert, 2015). And, since the successful management of a social media campaign typically depends on achieving behavioral outcomes among target publics, determining the motivational factors that predict active participation in the campaign is paramount.

The purpose of this study is to investigate the motivational factors that predict the willingness of individuals to participate in a social media campaign in the context of animal protection issues. Animal protection was chosen because this public interest issue is well known and general enough that people can be expected to provide meaningful responses when asked about the issue. This study proposed a research model (see Figure 1) that adopted the Situational Theory of Publics by J.E. Grunig (1966; 1989; 1997; 2003) as the theoretical background and included two additional critical concepts. First, this study adopted three awareness variables (problem recognition, constraint recognition, and level of involvement about the social issue) as underlying components of people's situational awareness, which may predict issue campaign participation intentions (J.E. Grunig, 1997; Kim, 2011; Kim & J.E. Grunig, 2011). Next, given that people are more likely to perform a behavior in the presence of a reward or benefit (Ling, Beenen, Ludford, Wang, Chang, Cosley, Frankowski, Terveen, Rashid, Resnick, & Kraut, 2005; Morgan & Hunt, 1994), this research extends theory about the mobilization of publics by adding the concept of participation benefits—functional, social/psychological, and hedonic—as an antecedent to situational awareness and predictor of participation intentions (Wang & Fesenmaier, 2002; Wang & Fesenmaier, 2004). Also, to make the theory more robust for a campaign using social media as the message platform, the concept of social ties influence (i.e., strong and weak ties) was included as an additional antecedent to situational awareness and participation intentions.

Although the role of participation benefits and social ties influences has been actively studied in online travel community management and social network literature, little research tests these concepts simultaneously in relation to individuals' levels of situational awareness as a

predictor of campaign participation intentions. Therefore, the influence of situational awareness, participation benefits, and both strong ties and weak ties on individuals' participation intentions is examined. Finally, to better understand the overall dynamics of public mobilization around a public interest issue campaign on social media, this study explores whether situational awareness is a mediator between participation benefits, strong ties influence, and weak ties influence and participation intentions.

Figure 1. Suggested research model



## Literature review

### Situational awareness

By identifying publics (also called public segmentation) based on individuals' situational awareness toward an issue, the Situational Theory of Publics has explained and predicted when and why people become active communicators (J.E. Grunig, 2003; Kim & J.E. Grunig, 2011). The Situational Theory of Publics includes three independent variables (problem recognition, level of involvement, and constraint recognition) that measure the cognitive and motivational antecedents that lead to individuals' passive or active communication behaviors, defined as

information processing or information seeking, respectively (J.E. Grunig, 1997, 2003; Kim, 2011; Kim & J.E. Grunig, 2011). According to the theory, when people perceive an issue as a problem, feel involved in it, and think they can do something about the issue, they are more likely to engage in information seeking or participatory communication (J.E. Grunig, 2003; Kim & J.E. Grunig, 2011). Because of the theory's systematic approach to public segmentation and predictive power related to communication behavior, it has been used frequently by communication researchers and campaign managers (Aldoory & Sha, 2007; Kim & J.E. Grunig, 2011). And since most social media campaign behaviors (e.g., searching, posting, and sharing) can be considered participatory, this study adopted three situational awareness variables from the theory to predict campaign participation intentions.

Based on the original definitions of the three awareness variables, this study defined problem recognition as perceptions of the severity and actual occurrence of animal protection issues such as cruelty, abuse, neglect, or abandonment. Level of involvement is the degree to which people feel connected to animal protection issues. Constraint recognition is the extent to which people feel they can make a positive difference in addressing animal protection issues (i.e., low constraint recognition is associated with more active communication). Overall then, situational awareness is characterized by recognizing the issue as a serious problem, feeling highly involved with the issue, and perceiving few obstacles or barriers to doing something about the issue.

### Social media issue campaign participation intentions

To increase its theoretical power and practical applicability, Kim and J.E. Grunig (2011) expanded the original Situational Theory of Publics with a new classification of communication behaviors they included in their theory of Communicative Action in Problem Solving (CAPS). Kim and J.E. Grunig (2011) argued that the original theory had a narrow and limited landscape of active communication behaviors because it only focused on information acquisition behaviors. Thus, they first reclassified communication behaviors as information acquisition, information selection, and information transmission (Kim, J.E. Grunig, & Li, 2010; Kim & J.E. Grunig, 2011). Kim and J.E. Grunig (2011) then applied an active and passive component to each type of communication behavior to delineate six types of communication behaviors in problem solving—information seeking, attending, forefending, permitting, forwarding, and sharing. They also developed and tested measurement items for information seeking and attending (information acquisition behaviors), information forefending and permitting (information selection behaviors), and information forwarding and sharing (information transmission behaviors). Both refinements of the Situational Theory of Publics—CAPS and the Situational Theory of Problem Solving (STOPS)—were applied in various studies to address communication in problematic situations from personal issues to social issues (e.g., fitness or fighting terrorism) (Kim et al., 2010; Kim & J.E. Grunig, 2011).

As Kim and J.E. Grunig (2011) argued, the CAPS and STOPS theories add communicative dimensions that are especially relevant to much social media communication. Participatory

communication such as liking and/or sharing information is typically expected from social media issue campaigns (Paek, Hove, Jung, & Cole, 2013). Therefore, this study adopted and modified some of the CAPS/STOPS measurement items to measure social media campaign participation intentions, including visiting the campaign site often for up-to-date information, providing an email address to receive information, sharing information related to the issue with others, posting pictures or videos on social media, sharing personal thoughts and experiences on social media, and changing profiles to the campaign logo or symbol.

Based on the aforementioned literature, the following hypothesis was proposed:

*H1*: Situational awareness is a positive predictor of social media issue campaign participation intentions.

### Participation benefits

Benefits that people expect to gain from campaign participation are important for motivating participants to act to address the campaign issue (Ling et al., 2005). When participants perceive those rewards or benefits as worthwhile, they are more likely to become active and sustained participants (Morgan & Hunt, 1994; Wang, Yu, & Fesenmaier, 2002). For example, research has shown that feeling personal enjoyment, interest, or pride makes people intrinsically motivated to become an active participant (Lai, 2011; Ryan & Deci, 2000). In addition, any material or psychological rewards (e.g., money, gift cards, compliments, or popularity) that come from external sources promote people's extrinsic motivation and participation behaviors (Lai, 2011; Ryan & Deci, 2000).

To predict and explain how participation benefits drive online travel community members' communication and participation behaviors, Wang and Fesenmaier (2002; 2004) classified participation benefits into four categories—functional, social/psychological, and hedonic. Recognizing the characteristics of an online community such as the interactivity that comes from sharing information, Wang and Fesenmaier (2002; 2004) defined functional benefits as rewards associated with information gathering (e.g., quality information, up-to-date information) for learning and better decision making (Wang & Fesenmaier, 2004). Social benefits come from developing a relationship with others such as trust and social involvement (e.g., getting involved in groups, becoming a prominent member). Psychological benefits are defined as a sense of belonging to and affiliation with other members of the online community (Wang et al., 2002; Wang & Fesenmaier, 2004). Lastly, hedonic benefits are defined as enjoyment, entertainment, excitement, and enthusiasm that individuals feel because of participating in the online community (Wang & Fesenmaier, 2002; 2004). According to Wang and Fesenmaier (2004), these perceived participation benefits are important factors that attract potential members and encourage current members' participation in the online community (p.711).

For this study, Wang and Fesenmaier's (2002; 2004) definition of functional benefits were used. Social and psychological benefits were combined since both represent similar concepts

within the context of social media campaigns (e.g., sense of belonging, affiliation, and/or bonding). Wang and Fesenmaier's (2002; 2004) concept of hedonic benefits, such as personal enjoyment from participating in the campaign, also was retained. But, given the seriousness of issues related to animal protection, hedonic benefits were defined as people's feelings of worthiness for helping and protecting animals. To test whether perceived participation benefits is a positive predictor of situational awareness and participation intentions, the following hypotheses were proposed:

*H2:* Participation benefits are a positive predictor of situational awareness in a social media issue campaign.

*H3:* Participation benefits are a positive predictor of social media campaign participation intentions.

### Social ties influence

Social media enhance connectivity and interactivity among users and provide opportunities for faster and easier communicative actions (Chu & Kim, 2011). And, communication through social media is embedded in the interactions and influences of social networks (Paek et al., 2013). Based on their collaborative and network-based characteristics, social media enable users to conduct collective actions with others by sharing information, thoughts, and opinions on various social issues (Chu & Kim, 2011; Hon, 2016; Li, 2016; Shirky, 2011). Users exert their collective power by building relationships within their social networks, and those social networks can be considered as sets of social ties that connect individuals (Kebede & Butterfield, 2009; Knoke & Yang, 2008; Obaa & Mazur, 2016; Sequeira, Mueller, & McGee, 2007). Since social media have become a popular platform for social movements and public mobilization, researchers have focused on the role of social ties in movement recruitment and participation (Cho, Myers, & Leskovec, 2011; Diani, 2000).

Among the many different approaches to examine the role of social ties influence (e.g., number of ties, presence of ties, and type of ties), the impact of social ties influence on effective communication management has been examined extensively in relation to the concept of tie strength (Granovetter, 1973, 1983; McAdam & Paulsen, 1993). Tie strength has been defined as "the potency of the bond between members of a social network" (Mittal, Huppertz, & Khare, 2008, p. 196), which is determined by a combination of frequency of contact, amount of time spent, intimacy, emotional intensity, and reciprocity among network members (Chu & Kim, 2011; Granovetter, 1973). Based on the degree of social interaction, both type (i.e., strong ties, weak ties) and influence (e.g., emotional support, increasing awareness) of social ties can be determined (Granovetter, 1973, Ibarra, 1993; Levin & Cross, 2004). Strong ties refer to links with family, close friends, or relatives who have frequent contact and intimate relationships in a social network, while weak ties represent links among distant acquaintances or public figures

(Chu & Kim, 2011; Grabowicz, Ramasco, & Moro, Pujol, & Eguiluz, 2012; Granovetter, 1973). Since strong ties influence results from emotionally intimate figures (e.g., family or close friends), strong ties provide emotional support and encouragement that promote campaign participation (Chu & Kim, 2011; Ibarra, 1993; Levin & Cross, 2004; Pigg & Crank, 2004). In addition, since weak ties influence stems from distant figures in social networks (e.g., celebrities, authority figures), weak ties increase awareness of issues by sharing relevant information to wider network (Chu & Kim, 2011; Levin & Cross, 2004; Pigg & Crank, 2004).

Understanding the role of social ties influence as it relates to social media issue campaign participation is essential for effective campaign management (Li, 2016; Shirky, 2011; Smith, Coyle, Lightfoot, & Scott, 2007). Since personal ties within social networks are viewed as important resources, some research on social media campaigns has documented that social ties influence is a positive and significant predictor of campaign participation behaviors (Chu & Kim, 2011; Grabowicz et al., 2012; Shan & King, 2015). Researchers also have emphasized the importance of social network influence from both strong and weak ties, as each tie plays a different role (Granovetter, 1973; 1983, Krackhardt, 1992). So, rather than measure social ties influence as one overall concept, this study partitions the predictive power of each (i.e., strong ties and weak ties) by measuring them as separate dimensions. Therefore, hypotheses four through seven were proposed:

*H4:* Strong ties influence is a positive predictor of situational awareness in a social media issue campaign.

*H5:* Strong ties influence is a positive predictor of participation intentions in a social media issue campaign.

*H6:* Weak ties influence a positive predictor of situational awareness in a social media issue campaign.

*H7:* Weak ties influence is a positive predictor of participation intentions in a social media issue campaign.

### Mediating effect of situational awareness

The basic assumption of STOPS is that most human behavior is motivated to solve perceived problems from experienced indeterminate situations (Kim & J.E. Grunig, 2011). This tendency explains how situational awareness toward the issue plays a critical role in motivating people to participate in social media issue campaigns to solve various social issues. Thus, campaign managers who know an individual's level of situational awareness regarding the issue (e.g., problem recognition, involvement, and constraint recognition) can easily predict how that individual is likely to participate in the campaign. However, awareness of the perceived problem

does not exist until people identify and recognize it (Kim & J.E. Grunig, 2011). Thus, when planning and managing campaigns, it is important to know which factors might affect individuals' levels of situational awareness.

Although many researchers have separately examined the role of motivational factors discussed in this study (i.e., situational awareness, participation benefits, and social ties influence) to predict individuals' participatory behaviors, limited research has explored the relationship between these variables in one model, especially considering situational awareness as a mediator. Therefore, three additional research questions were proposed:

*RQ1:* Does situational awareness mediate the relationship between participation benefits and social media campaign participation intentions?

*RQ2:* Does situational awareness mediate the relationship between strong ties influence and social media campaign participation intentions?

*RQ3:* Does situational awareness mediate the relationship between weak ties influence and social media campaign participation intentions?

## Method

### Procedure

The pretest and main survey were administered online using Qualtrics and Amazon's Mechanical Turk (MTurk). Filter criteria were used to generate a sample of 55 respondents for the pretest and 326 respondents for main survey who were reasonably representative of the U.S. adult population (i.e., 18 or older and current residents of the United States). In addition, as a response quality check for the main survey, some questionnaire items were reversed. If a respondent answered more than two reversed questions inconsistently with any item for the same construct, the participant's responses were not included in the data analysis.

Determining sample size requirements for Structural Equation Modeling (SEM) is not straightforward (Wolf, Harrington, Clark, & Miller, 2013). Thus, researchers have followed the suggested standards such as a minimum sample size of 100 or 200 (Boomsma, 1985), 10 cases per variable (Nunnally & Bernstein; 1978), or five to 10 cases per estimated parameter (Bentler & Chou, 1987; Bollen, 1989; Schreiber, Nora, Stage, Barlow, & King 2006). For this study, Soper's (2016) a priori sample size calculator was used whereby the minimum sample size required for SEM is computed based on the number of observed and latent variables in the model, anticipated effect size, and desired probability and statistical power levels (<http://www.danielsoper.com/statcalc>). Given the model tested here has 32 observed variables



and 11 latent variables, a medium anticipated effect size of .10, a desired statistical power level of .8, and an alpha level of <.05, a minimum of 215 cases was required for model structure (see also Schumacker & Lomax, 2004). Thus, this study's final sample size of 326 respondents met this threshold.

At the beginning of the survey, respondents were exposed to a Facebook page about a fictitious animal protection campaign (See Appendix). Facebook was selected because it is the most frequently used social media platform among U.S. adults (Social media fact sheet, 2017). The purpose of the Facebook page was to provide the context for participants based on facts about the issue as well as relevant information provided in the post.

## Respondents

All respondents received one dollar as compensation. For the main survey, the respondent group was 48.2% ( $n = 157$ ) male and 51.8% ( $n = 169$ ) female. Among the respondents, 74.2% ( $n = 242$ ) were White, 7.7% ( $n = 25$ ) were African American, 9.8% ( $n = 32$ ) were Asian, 7.1% ( $n = 23$ ) were Hispanic/ Latino, and 1.2% ( $n = 4$ ) indicated "other." Most had some college experience (46.3%,  $n = 151$ ) or a bachelor's degree (32.2%,  $n = 105$ ). About 9.5% ( $n = 31$ ) indicated high school as their highest level of education, 8.9% ( $n = 29$ ) had a master's degree, 1.8% ( $n = 6$ ) had a doctorate, 0.6% ( $n = 2$ ) had professional degrees, and 0.6% ( $n = 2$ ) indicated some schooling completed. Relative to the U.S. adult population, Whites are slightly overrepresented, and the average level of education is higher.

## Measures

An initial pool of survey questionnaire items was created through (a) adopting and modifying existing measurement scales for the situational awareness and perceived participation benefits and (b) developing original items for social ties influence and participation intentions (See Table 1). Each questionnaire item was worded within the context of animal protection.

Measures of situational awareness—seven items for problem recognition, six items for constraint recognition, and six items for involvement—were adopted and modified from existing literature (Cameron & Yang, 1991; J. E. Grunig, 1997; Hamilton, 1992; Kim & J.E. Grunig, 2011). To measure perceived participation benefits, Wang and Fesenmaier's (2002; 2004) scale was used because it has been successfully tested in many online community studies. However, some of the questions were modified to apply to a social media campaign. Seven items for functional benefits, six items for social/psychological benefits, and six items for hedonic benefits were adopted and modified from the scale proposed by Wang and Fesenmaier (2002; 2004). Social ties influence typically has been manipulated by the subject or number of contacts (e.g., family or close friends vs. acquaintances or colleagues, frequent contact vs. no-contact for a long time) instead of measured directly (Wirtz & Chew, 2002). Therefore, 10 original items were

created to capture two different contexts on social media—strong ties (close friends, family) and weak ties (celebrities, authority figures). To measure participation intentions within the context of a social media campaign, 10 original items were developed (See Table 1).

All the questionnaire items were measured with a 9-point Likert scale (1=strongly disagree to 9=strongly agree). The informed consent statement and survey instrument received approval from the Institutional Review Board (IRB) at the researchers' university. Based on the results of the pretest, some measurement items were modified to improve the wording and items that had factor loadings less than .50 or cross-loaded with other items were removed.

Table 1. Initial Measurement Items

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<b>Measurement Items</b>
<b><i>Situational Awareness</i></b>
<b><i>Problem Recognition</i></b>
PR1 I often think about the issue.
PR2 I do believe this issue is a real problem.
PR3 I think this issue is an important issue to think about.
PR4 I think this issue is a serious problem.
PR5 I don't think problems related to this issue are really happening (rev.).
PR6 I am concerned about this issue.
PR7 I think this issue is a significant problem.
<b><i>Constraint Recognition<sup>1</sup></i></b>
CR1 There is nothing that can be done regarding this issue.
CR2 I think we can all do our part to make a difference regarding this issue (rev.).
CR3 There is no point in my doing anything about this issue because it won't change anything.
CR4 I think an individual's participation will not make any difference regarding this issue.
CR5 It is difficult for individuals to have an impact on this issue.
CR6 I think an individual's effort can make a difference regarding this issue (rev.).
<b><i>Involvement</i></b>
IV1 I think this issue is irrelevant to most people including me.
IV2 I think this issue is closely related to my life.
IV3 I feel personally close to this issue.
IV4 I believe this issue will affect my life and others.
IV5 I think this issue has nothing to do with my life (rev.).
IV6 I think I am highly involved in this issue.
IV7 I think people should take responsibility for this issue.

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<sup>1</sup> Some reversed question items were added (i.e., CR2, CR6) based on the original measures. Therefore, data were reverse coded except for CR2 and CR6. So, a high number represents less constraint recognition.

***Perceived Participation Benefits***

***Functional Benefits***

FB1 Obtain up-to-date information about the issue quickly.

FB2 Conveniently communicate about the issue with others without constraints of time and location.

FB3 Easily share thoughts about the issue.

FB4 Maintain relationships with others despite the limitations of time and space.

FB5 Easily raise funds via an online donation program.

FB6 Efficiently inform others about the issue.

FB7 Establish relationships with others despite the limitations of time and space.

***Social/Psychological Benefits***

SPB1 Get involved with others who also are participating in this issue.

SPB2 Feel like an important member of the movement's group.

SPB3 Develop close bonding with others who also are participating in this issue.

SPB4 Build a sense of affiliation in the group toward this issue.

SPB5 Feel a sense of belonging to each other in the fight against this issue.

SPB6 Feel happiness when working together about the issue.

***Hedonic Benefits***

HB1 Feel it is worthwhile to help protect animals.

HB2 Feel it is worthwhile to help and save other species on earth.

HB3 Feel it is worthwhile to think about animal protection.

HB4 Feel appreciated by others while participating in the movement.

HB5 Have enthusiasm for this issue to be resolved.

HB6 Feel personal enjoyment when participating in movement activities.

***Social Ties Influence***

***Strong Ties Influence***

“My close friends or family on social media”

STIE1 Influence the way I think about this issue.

STIE2 Help me to be aware of this issue.

STIE3 Provide information about this issue based on their experience.

STIE4 Help me to remember this issue.

STIE5 Have often talked about this issue with me.

STIE6 Encourage me to think about this issue.

STIE7 Are not expecting me to participate in online communication about this issue (rev.).

STIE8 Sometimes tag me to the related post or video about this issue.

STIE9 Are making effort to mitigate the issue.

STIE10 Have much influence on my thoughts about this issue.

***Weak Ties Influence***

“Celebrities or authority figures on social media”

WTIE1 Influence the way I think about this issue.

WTIE2 Help me to be aware of this issue.

WTIE3 Provide information about this issue based on their experience.

WTIE4 Help me to remember this issue.

WTIE5 Have often talked about this issue with me.

WTIE6 Encourage me to think about this issue.

WTIE7 Are not expecting me to participate in online communication about this issue (rev.).

WTIE8 Sometimes tag me to the related post or video about this issue.

WTIE9 Are making effort to mitigate the issue.

WTIE10 Have much influence on my thoughts about this issue.

***Participation Intentions***

PI1 I am willing to visit the campaign website related to the issue regularly.

PI2 I am willing to conduct my own online campaign related to the issue.

PI3 I am willing to make and share social media content related to the issue.

PI4 I am willing to share factual information (e.g., news, articles) regarding the campaign issue on social media.

PI5 I am willing to communicate about the issue with others via SNSs.

PI6 I am willing to share my thoughts and experiences regarding the campaign issue on social media.

PI7 I am willing to provide my email address to receive more information regarding the issue.

PI8 I am willing to sign up for a petition related to the issue.

PI9 I am willing to change my social media profile with the logo, symbol, or other information from this campaign.

PI10 I am willing to post and share pictures or videos of myself participating in the campaign.

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For situational awareness, a total of nine measurement items—three items for problem recognition, three items for constraint recognition, and three items for involvement—were used for the data analysis (See Table 2). For perceived participation benefits, 10 items—four items for functional benefits, three items for social/psychological benefits, and three items for hedonic benefits—were selected for the final items (See Table 2). Next, four items each for strong ties and weak ties influence were drawn from the initial measurement item list (See Table 2). Last, five items remained for issue campaign participation intentions as a single factor for the data analysis (See Table 2). Cronbach's alpha coefficients were computed for all the revised measurement scales. Generally, a Cronbach's alpha value above .70 is considered acceptable (Nunnally, 1978). Cronbach's alpha for all scales was above .80 (See Table 2).

Table 2. Final Measurement Items

<b>Measurement Items</b>	<b>M</b>	<b>SD</b>	<b>Cronbach's alpha</b>
<b><i>Situational Awareness</i></b>			
<b><i>Problem Recognition</i></b>			0.88
PR2 I do believe this issue is a real problem.	7.60	1.97	
PR5 I don't think problems related to this issue are really happening (rev.).	7.59	1.90	
PR7 I think this issue is a significant problem.	7.47	1.97	
<b><i>Constraint Recognition</i></b>			0.87
CR4 I think an individual's participation will not make any difference regarding this issue.	7.02	2.01	
CR5 It is difficult for individuals to have an impact on this issue.	6.78	2.28	
CR6 I think an individual's effort can make a difference regarding this issue (rev.).	6.98	2.17	
<b><i>Involvement</i></b>			0.84
IV3 I feel personally close to this issue.	6.20	2.37	
IV4 I believe this issue will affect my life and others.	6.11	2.25	
IV6 I think I am highly involved in this issue.	5.85	2.08	
<b><i>Perceived Participation Benefits</i></b>			
<b><i>Functional Benefits</i></b>			0.93
FB1 Obtain up-to-date information about the issue quickly.	7.36	1.74	
FB2 Conveniently communicate about the issue with others without constraints of time and location.	7.30	1.86	
FB3 Easily share thoughts about the issue.	7.51	1.69	
FB7 Establish relationships with others despite the limitations of time and space.	7.10	1.93	
<b><i>Social/Psychological Benefits</i></b>			0.92
SPB3 Develop close bonding with others who also are participating in this issue.	6.87	1.98	
SPB5 Feel a sense of belonging to each other in the fight against this issue.	7.23	1.80	
SPB6 Feel happiness when working together about the issue.	7.14	1.78	
<b><i>Hedonic Benefits</i></b>			0.89
HB1 Feel it is worthwhile to help protect animals.	7.59	1.64	
HB3 Feel it is worthwhile to think about animal protection.	7.19	1.74	
HB5 Have enthusiasm for this issue to be resolved.	7.08	1.82	

<b><i>Social Ties Influence</i></b>			
<b><i>Strong Ties Influence</i></b>			0.98
“My close friends or family on social media”			
STIE1	Influence the way I think about this issue.	4.06	2.94
STIE2	Help me to be aware of this issue.	4.37	3.08
STIE4	Help me to remember this issue.	4.33	3.13
STIE10	Have much influence on my thoughts about this issue.	3.94	2.84
<b><i>Weak Ties Influence</i></b>			0.98
“Celebrities or authority figures on social media”			
WTIE1	Influence the way I think about this issue.	3.60	2.84
WTIE2	Help me to be aware of this issue.	4.07	3.10
WTIE4	Help me to remember this issue.	4.01	3.04
WTIE10	Have much influence on my thoughts about this issue.	3.53	2.77
<b><i>Participation Intentions</i></b>			0.96
PI4	I am willing to share factual information (e.g., news, articles) regarding the campaign issue on social media.	5.65	2.99
PI6	I am willing to share my thoughts and experiences regarding the campaign issue on social media.	5.50	2.90
PI7	I am willing to provide my email address to receive more information regarding the issue.	5.44	3.07
PI9	I am willing to change my social media profile with the logo, symbol, or other information from this campaign.	4.86	3.01
PI10	I am willing to post and share pictures or videos of myself participating in the campaign.	4.94	3.03

## Results

### Check for statistical assumptions

IBM SPSS V.2.1 was used for analyzing descriptive data and computing Cronbach’s alpha coefficients. Next, AMOS 20.0 was used for Confirmatory Factor Analysis (CFA) and testing the proposed research model and hypotheses. SEM is a statistical tool similar to multiple regression but provides more powerful analysis for estimating and specifying models of direct and indirect relationships among variables (MacCallum & Austin, 2000).

Considering that multivariate analyses such as SEM are based on a set of statistical assumptions, linearity, normality, multicollinearity, and outliers were examined (Hair, Black, Babin, & Anderson, 2010). Multivariate linearity and normality were analyzed through IBM SPSS V.2.1. Scatter plots determined that all relationships among the variables are linear. A

normality check showed a weak level of skewness and kurtosis for multiple variables. Therefore, bootstrapping analysis was conducted with maximum likelihood estimation during the main data analyses. Bootstrapping has been used frequently in analyzing non-normality or moderate non-normality of large sample data in social science because it does not rely on the assumption of a normal distribution (Lei & Lomax, 2005; Preacher & Hayes, 2004). Tests for multicollinearity showed acceptable values using the threshold of a variance inflation factor (VIF) of 10 (Hair et al., 2010). To check for outliers, standardized residuals were analyzed, and no extreme values were found. In addition, there were no Heywood cases, which shows a structure coefficient  $>1.0$  or a negative ( $<0$ ) estimate of measurement error variances detected (Bentler & Chou, 1987; Kline, 2013).

### Results of CFA

To validate the measurement models, CFA was conducted using SEM with maximum likelihood estimation. CFA is often used to test a proposed measurement model by viewing how well measured variables represent a construct (Hair et al., 2010). According to the results, all the items for situational awareness, perceived participation benefits, strong ties influence, and weak ties influence had factor loadings greater than 0.60, confirming that all items are valid measures of the constructs (Hair et al., 2010; Kline, 2005). The results also showed that all constructs displayed convergent validity, which generally is determined by Average Variance Extracted (AVE) values more than 0.50 and Composite Reliability (CR) scores more than 0.70 (Problem recognition; AVE = 0.50, CR = 0.75, Constraint recognition; AVE = 0.50, CR = 0.75, Involvement; AVE = 0.50, CR = 0.75, Functional benefits; AVE = 0.50, CR = 0.80, Social/Psychological benefits; AVE = 0.50, CR = 0.75, Hedonic (Altruistic) benefits; AVE = 0.51, CR = 0.76, Strong ties influence; AVE = 0.50, CR = 0.80, and Weak ties influence; AVE = 0.50, CR = 0.80) (See Table 3).

The measurement model fit for situational awareness, perceived participation benefits, and social ties influence was assessed using several goodness of fit indices such as Standardized Root Mean Residual (SRMR), the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), the Tucker Lewis index (TLI), and the Incremental Fit Index (IFI). An acceptable model fit is determined by an SRMR value less than 0.10 (Hair et al., 2010). RMSEA computes the average lack of fit per degrees of freedom (Reis & Judd, 2014; Robins Fraley, & Krueger, 2007). RMSEA values less than or equal to .05 are considered desirable, and values less than or equal to .08 indicate adequate fit and reasonable error of approximation (Schumacker & Lomax, 2004). CFI, TLI, and IFI values should be equal to or greater than .90 (Hair et al., 2010). The model fit statistics for situational awareness ( $X^2 = 66.179$ ,  $df = 24$ ,  $p < .001$ ; SRMR = 0.036, RMSEA = 0.074, CFI = 0.979, TLI = 0.969, and IFI = 0.979), perceived participation benefits ( $X^2 = 79.149$ ,  $df = 27$ ,  $p < .001$ ; SRMR = 0.023, RMSEA = 0.077, CFI = 0.983, TLI = 0.972, and IFI = 0.984), and social ties influence ( $X^2 = 28.358$ ,  $df = 11$ ,  $p < .001$ ; SRMR = 0.021, RMSEA = 0.070, CFI = 0.996, TLI = 0.990, and IFI = 0.996) met all criteria.

Table 3. Construct Validity Tests Results of Eight Constructs (*n*=326)

	Items	Estimate	S.E.	C.R.	AVE	CR
Problem Recognition	PR2	1.052	0.051	20.757	0.50	0.75
	PR7	0.948	0.054	17.618		
	PR5	1.000				
Constraint Recognition	CR5	1.093	0.068	16.125	0.50	0.75
	CR6	1.038	0.059	17.643		
	CR4	1.000				
Involvement	IV3	1.535	0.124	12.415	0.50	0.75
	IV4	1.499	0.119	12.577		
	IV6	1.000				
Functional Benefits	FB2	1.007	0.042	23.760	0.50	0.80
	FB 1	0.889	0.042	21.316		
	FB 3	0.892	0.039	22.772		
Social/Psychological Benefits	FB 7	1.000			0.50	0.75
	SPB 3	1.049	0.048	21.698		
	SPB 5	1.077	0.041	26.115		
Hedonic (Altruistic) Benefits	SPB 6	1.000			0.51	0.76
	HB5	1.149	0.061	18.842		
	HB3	1.103	0.059	18.828		
Strong ties Influence	HB1	1.000			0.50	0.80
	STIE4	1.138	0.028	40.322		
	STIE2	1.123	0.027	40.853		
Weak ties Influence	STIE1	1.032	0.030	34.301	0.50	0.80
	STIE10	1.000				
	WTIE4	1.166	0.031	37.686		
	WTIE2	1.197	0.031	38.535	0.50	0.80
	WTIE1	1.037	0.033	31.123		
	WTIE10	1.000				

### SEM model and hypothesis testing

Since SEM allows researchers to simultaneously test the relationships among multiple independent and dependent variables in a complex model (Hair et al., 2010), SEM was used to test the proposed model and hypotheses. The model was bootstrapped 5,000 times with 95% bias-corrected confident intervals, and the Bollen-Stine p-value was assessed ( $p < .001$ ) (Nevitt & Hancock, 2001). The model fit statistics met all the standard criteria for SEM ( $X^2 = 1146.062$ ,  $df = 450$ ,  $p < .001$ ; SRMR = 0.091, RMSEA = 0.069, CFI = 0.943, TLI = 0.937, and IFI =



0.943). The  $\chi^2/df$  (CMIN/DF) ratio of the model ( $\chi^2/df = 2.547$ ) also met the recommended threshold, which is less than three (Carmins & McIver, 1981).

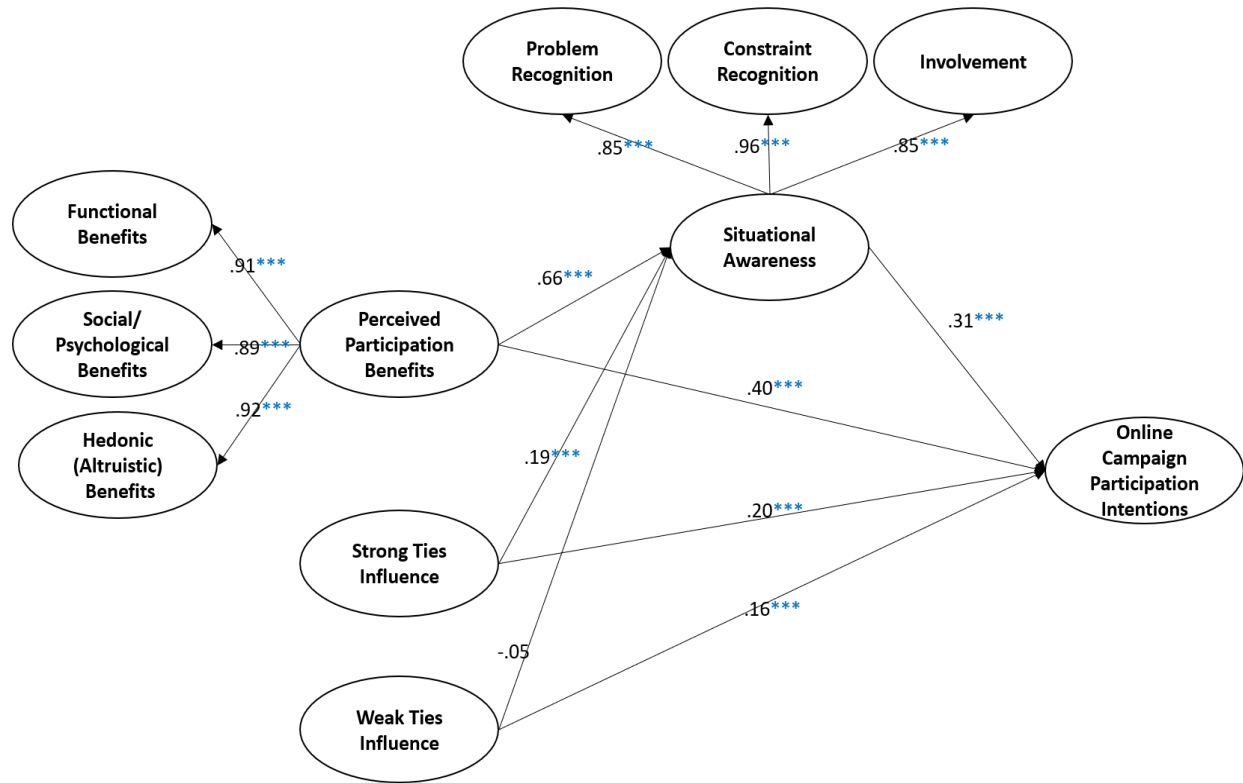
All the hypotheses were supported except hypothesis 6 (See Table 4 and Figure 2). Results confirmed that situational awareness positively predicts participation intentions (*H1*,  $\beta = 0.31$ ,  $p < .001$ ). Participation benefits positively predict situational awareness (*H2*,  $\beta = 0.66$ ,  $p < .001$ ) and participation intentions (*H3*,  $\beta = 0.40$ ,  $p < .001$ ). Strong social ties influence positively predicts situational awareness (*H4*,  $\beta = 0.19$ ,  $p < .001$ ) and participation intentions (*H5*,  $\beta = 0.20$ ,  $p < .001$ ). Hypothesis 6—weak ties influence positively predicts situational awareness—was not supported (*H6*,  $\beta = -0.05$ ,  $p > .001$ ). Finally, weak ties influence was a positive predictor of participation intentions (*H7*,  $\beta = 0.16$ ,  $p < .001$ ) (See Table 4 and Figure 2).

Table 4. Tests of Hypotheses-Standardized Regression Weights ( $n=326$ )

Path		$\beta$	p	
H1	Situational awareness → Participation Intentions	0.307	***	Supported
H2	Participation Benefits → Situational awareness	0.659	***	Supported
H3	Participation Benefits → Participation Intentions	0.396	***	Supported
H4	Strong Ties Influence → Situational awareness	0.193	***	Supported
H5	Strong Ties Influence → Participation Intentions	0.202	***	Supported
H6	Weak Ties Influence → Situational awareness	-0.049	.440	N/A
H7	Weak Ties Influence → Participation Intentions	0.159	***	Supported

Note. Bootstrap resampling = 5000. \*\*\* $p < .001$

Figure 2. Results of Structure Equation Modeling Test for the Proposed Model



(\*\*\* p<.001.)

### Mediation analysis

In addition to the hypothesized predictions in the proposed conceptual model, to affirm the mediation effect of situational awareness, bootstrapping analysis was conducted (Hayes, 2013; Preacher & Hayes, 2004; 2008). Bootstrap estimates were calculated based on 5,000 bootstrap samples at a 95% bias-corrected percentile. Since the confidence interval of the indirect effect did not include zero (Lower CI: 0.109, Upper CI: 0.325), it can be concluded that the indirect effect was significantly different ( $\beta = .20, p < .001$ ) from zero at  $p < 0.001$  with a 95% confidence interval. This finding indicates that an increase in situational awareness toward the issue influenced by participation benefits predicts stronger participation intentions (See Table 5).

Table 5. Mediation Analysis—Confirming Results of Mediation Effect in the SEM Model-Participation Benefits ( $n = 326$ )

	Bootstrap Standardized Estimates	Bootstrap SE	Bootstrap 95% CI	
			Lower	Upper
<b><i>Perceived Participation Benefits</i></b>				
<b><i>Direct effects</i></b>				
Participation Benefits → Situational Awareness***	0.659	0.053	0.548	0.756
Situational Awareness → Participation Intentions***	0.307	0.075	0.162	0.459
Participation Benefits → Participation Intentions***	0.396	0.076	0.249	0.547
<b><i>Indirect effects</i></b>				
Participation Benefits → Situational Awareness → Participation Intentions***	0.203	0.054	0.109	0.325

Note. Bootstrap resampling = 5000. \*\*\* $p < .001$

Results for Research Question 2 supported a partial mediation effect of situational awareness on the relationship between strong ties influence and participation intentions. The results of another bootstrapping analysis, which tested the mediation effect of situational awareness based on 5,000 bootstrap samples at a 95% bias-corrected percentile, also confirmed a partial mediation effect of situational awareness on the relationship between strong ties influence and participation intentions. Since the confidence interval of indirect effect did not include zero (Lower CI: .021, Upper CI: .117), it can be concluded that the indirect effect was significantly different ( $\beta = .06, p < .001$ ) from zero at  $p < 0.001$  with a 95% confidence interval. This finding confirmed that an increase in situational awareness influenced by strong social ties influence predicts stronger participation intentions (See Table 6).

Table 6. Mediation Analysis—Confirming Results of Mediation Effects in the SEM Model-Strong Ties Influence ( $n = 326$ )

	Bootstrap Standardized Estimates	Bootstrap SE	Bootstrap 95% CI	
			Lower	Upper
<b><i>Strong Ties</i></b>				
<b><i>Direct effects</i></b>				
Strong Ties Influence → Situational Awareness***	0.193	0.054	0.085	0.301
Situational Awareness → Participation Intentions***	0.307	0.075	0.162	0.459
Strong Ties Influence → Participation Intentions***	0.202	.067	0.073	0.337

**Indirect effects**

Strong Ties Influence → Situational Awareness → Participation Intentions***	0.059	.025	0.021	0.117
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Note. Bootstrap resampling = 5000. \*\*\*p<.001

Tests to answer Research Question 3 showed that weak ties influence does not predict situational awareness ( $\beta = -.04, p > .001$ ) (See Table 4). This means that weak ties influence has only a direct effect on participation intentions (i.e., there is no mediation effect from situational awareness).

Discussion

The purpose of this study was to investigate the motivational factors that predict individuals’ participation intentions within the context of a public interest issue campaign on social media. Results indicate that participation success or failure may be influenced not only by individuals’ situational awareness, but also characteristics of social networks such as social ties influence and participation benefits gained from the online community. This study also found that situational awareness partially mediates the relationship between participation benefits and participation intentions as well as strong ties influence on individuals’ participation intentions. These findings indicate that individuals’ participation benefits and/or influence from their strong ties will not only influence their level of situational awareness, but also act as stronger predictors of participation intentions when processed through their personal awareness toward the issue.

This study suggests several theoretical and practical implications. This research expanded the Situational Theory of Publics, CAPS, and STOPS by including participation benefits and social ties influence and validating scales for both. In doing so, this study provides empirical evidence of factors that motivate publics to be active in participating in public interest issue campaigns on social media. The results suggest that campaign planners should emphasize participation benefits. Messages shared through social networks, especially via strong ties (i.e., friends or family) also may be more compelling than those posted only on official campaign websites or social media.

This study also extends theory about mobilization of publics by examining the mediating role of situational awareness in the relationship between participation benefits and participation intentions as well as strong ties influence and participation intentions. That is, individuals have more situational awareness if they anticipate benefits for their participation and information comes from strong social ties.

## Limitations and areas for future research

This study has several limitations. The original 70-item questionnaire was lengthy, so participant fatigue may have occurred. For future research, researchers should use the reduced version of the questionnaire. Since this research only used one issue that respondents could be reasonably expected to be familiar with, readers should interpret the results as survey based, not as experimental where multiple messages and a control group should be used. Future research should use other public interest issues to determine the efficacy of the proposed model across a variety of issues. Finally, since public interest issue salience waxes and wanes because of external social, economic, and political factors, a longitudinal design could help establish the stability of the proposed model over time.

## References

- Aldoory, L., & Sha, B. L. (2007). Elaborations of the situational theory of publics for more effective application to public relations scholarship and practice. In E. L. Toth (Ed.), *The future of excellence in public relations and communication management: Challenges for the next generation* (pp. 339-355). Mahwah, NJ: Erlbaum.
- Aral, S., & Walker, D. (2014). Tie strength, embeddedness, and social influence: A large-scale networked experiment. *Management Science*, *60*(6), 1352-1370.  
doi:10.1287/mnsc.2014.1936
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, *16*(1), 78-117. doi:10.1177/0049124187016001004
- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research*, *17*(3), 303-316. doi:10.1177/0049124189017003004
- Boomsma, A. (1985). Nonconvergence, improper solutions, and starting values in LISREL maximum likelihood estimation. *Psychometrika*, *50*(2), 229-242. doi:10.1007/BF02294248
- Brunsting, S. & Postmes, T. (2002). Social movement participation in the digital age: Predicting offline and online collective action. *Small Group Research*, *33*(5), 525-554.  
doi:10.1177/104649602237169
- Cameron, G. T., & Yang, J. (1991). Effect of support and personal distance on the definition of key publics for the issue of AIDS. *The Journalism Quarterly*, *68*(4), 620-629.  
doi:10.1177/107769909106800402
- Carmins, E. C., & McIver, J. P. (1981). *Analyzing models with unobservable variables. Social measurement: Current issues*. Beverly Hills, CA: Sage.
- Carty, V. (2015). *Social movements and new technology* (1<sup>st</sup> ed). Boulder, CO: Westview Press.
- Castells, M. (2015). *Networks of outrage and hopes: Social movements in the Internet age*. Hoboken, NJ: John Wiley & Sons.

- Cho, E., Myers, S. A., & Leskovec, J. (2011). Friendship and mobility: User movement in location-based social networks. *In Proceedings of the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 1082-1090. ACM.  
doi:10.1145/2020408.2020579
- Chu, S. C., & Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, 30(1), 47-75. doi:10.2501/IJA-30-1-047-075
- Earl, J., & Kimport, K. (2011). *Digitally enabled social change: Activism in the internet age*. Cambridge, MA: MIT Press. doi:10.7551/mitpress/9780262015103.001.0001
- Dencik, L., & Leistert, O. (2015). *Critical perspectives on social media and protest: Between control and emancipation*. London: Rowman & Littlefield International.
- Diani, M. (2000). Social movement networks virtual and real. *Information, Communication & Society*, 3(3), 386-401. doi:10.1080/13691180051033333
- Grabowicz, P. A., Ramasco, J. J., Moro, E., Pujol, J. M., & Eguiluz, V. M. (2012). Social features of online networks: The strength of intermediary ties in online social media. *PloS one*, 7(1), e29358. 1-9. doi:10.1371/journal.pone.0029358
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380. doi:10.1086/225469
- Granovetter, M. S. (1983). The strength of weak ties: A network theory revisited. *Sociological Theory*, 1(1), 201-233. doi:10.2307/202051
- Grunig, J. E. (1966). The role of information in economic decision making. *Journalism Monographs*, 3, 1-52.
- Grunig, J. E. (1989). Publics, audiences and market segments: Models of receivers of campaign messages. In C. T. Salmon (Ed.), *Information campaigns: Managing the process of social change* (pp. 197-226). Newbury Park, CA: Sage.
- Grunig, J. E. (1997). A situational theory of publics: Conceptual history, recent challenges and new research. In D. Moss, T. MacManus, & D. Vercic (Eds.), *Public relations research: An international perspective* (pp. 3-46). London: International Thompson Business.
- Grunig, J. E. (2003). Constructing public relations theory and practice. In B. Dervin & S. Chaffee, & L. Foreman-Wernet (Eds.), *Communication, another kind of horse race: Essays honoring Richard F. Carter* (pp. 85-115). Cresskill, NJ: Hampton Press.
- Hamilton, P. K. (1992). Grunig's situational theory: A replication, application, and extension. *Journal of Public Relations Research*, 4(3), 123-149. doi:10.1207/s1532754xjpr0403\_01
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hon, L. (2015). Digital social advocacy in the Justice for Trayvon Campaign. *Journal of Public Relations Research*, 27(4), 299-321. doi:10.1080/1062726X.2015.1027771

- Hon, L. (2016). Social media framing within the Million Hoodies movement for justice. *Public Relations Review*, 42(1), 9-19. doi:10.1016/j.pubrev.2015.11.013
- Ibarra, H (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18, 56-87. doi:10.5465/amr.1993.3997507
- Jenkins, H., Shresthova, S., Gamber-Thompson, L., Kligler-Vilenchik, N., & Zimmerman, A. (2016). *By any media necessary: The new youth activism*, New York, NY: NYU Press.
- Kebede, W., & A.K. Butterfield (2009). Social networks among poor women in Ethiopia. *International Social Work*, 52(3), 357–373. doi:10.1177/0020872808102069
- Kim, J. N., Grunig, J. E., & Ni, L. (2010). Reconceptualizing the communicative action of publics: Acquisition, selection, and transmission of information in problematic situations. *International Journal of Strategic Communication*, 4(2), 126-154. doi:10.1080/15531181003701913
- Kim, J. N. (2011). Public segmentation using situational theory of problem solving: Illustrating summation method and testing segmented public profiles, *Prism*, 8(2), 1-12. Retrieved from [www.prismjournal.org/homepage.html](http://www.prismjournal.org/homepage.html)
- Kim, J. N., & Grunig, J. E. (2011). Problem solving and communicative action: A situational theory of problem solving. *Journal of Communication*, 61(1), 120-149. doi:10.1111/j.1460-2466.2010.01529.x
- Kline, R. B. (2005). *Principle and practice of structural equation modeling* (2<sup>nd</sup> ed.). New York, NY: Guilford.
- Kline, R. B. (2013). Exploratory and confirmatory factor analysis. In Y. Petscher, C. Schatschneider, & D. L. Compton, (Eds.), *Applied Quantitative Analysis in the Social sciences* (pp. 171-207). New York, NY: Routledge.
- Knoke, D., & S. Yang (2008). *Social network analysis* (2<sup>nd</sup> ed.). Los Angeles, CA: Sage.
- Krackhardt, D. (1992). The strength of strong tie: The importance of philos in organizations. In R. Cross, A. Parker, & L. Sasson (Eds.), *Networks and organizations: Structure, form, and action* (pp. 216-239). Oxford, England: Oxford University Press.
- Lai, E. R. (2011). Motivation: A literature review research report. Retrieved from Pearson assessments website: [https://images.pearsonassessments.com/images/tmrs/Motivation\\_Review\\_final.pdf](https://images.pearsonassessments.com/images/tmrs/Motivation_Review_final.pdf)
- Lei, M., & Lomax, R. G. (2005). The effect of varying degrees of nonnormality in structural equation modeling. *Structural Equation Modeling*, 12(1), 1-27. doi:10.1207/s15328007sem1201\_1
- Levin, D. Z., & Cross, R. (2004). The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. *Management Science*, 50(11), 1477-1490. doi:10.1287/mnsc.1030.0136
- Li, Z. (2016). Psychological empowerment on social media: Who are the empowered users? *Public Relations Review*, 42(1), 49-59. doi:10.1016/j.pubrev.2015.09.001
- Ling, K., Beenen, G., Ludford, P., Wang, X., Chang, K., Li, X., Cosley, D., Frankowski, D., Terveen, L., Rashid, A. M., Resnick, P., & Kraut, R. (2005). Using social psychology to

- motivate contributions to online communities. *Journal of Computer-Mediated Communication*, 10(4). doi:10.1111/j.1083-6101.2005.tb00273.x
- MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology*, 51(1), 201-226. doi:10.1146/annurev.psych.51.1.201
- McAdam, D., & Paulsen, R. (1993). Specifying the relationship between social ties and activism. *American Journal of Sociology*, 99(3), 640-667. doi:10.1086/230319
- McCarthy, J., & Zald, M. (1977). Resource mobilization and social movements: A partial theory. *American Journal of Sociology*, 82(6), 1212-1241. doi:10.1086/226464
- Mittal, V., Huppertz, J. W., & Khare, A. (2008). Customer complaining: The role of tie strength and information control. *Journal of Retailing*, 84(2), pp. 195-204. doi:10.1016/j.jretai.2008.01.006
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38. doi:10.2307/1252308
- Nevitt, J., & Hancock, G. R. (2001). Performance of bootstrapping approaches to model test statistics and parameter standard error estimation in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 8(3), 353-377. doi:10.1207/s15328007SEM0803\_2
- Nunnally, J. C., & Bernstein, I. (1978). *Psychometric Theory* (2<sup>nd</sup> ed.). New York, NY: McGraw-Hill.
- Obaa, B. B., & Mazur, R. E. (2016). Social network characteristics and resource access among formerly displaced households in Lira, Uganda. *Disasters*, 41(3), 468-486. doi:10.1111/disa.12210
- Oberschall, A. (1973). *Social conflict and social movements*. Englewood Cliffs, NJ, Prentice Hall.
- Paek, H. J., Hove, T., Jung, Y., & Cole, R. T. (2013). Engagement across three social media platforms: An exploratory study of a cause-related PR campaign, *Public Relations Review*, 39, 526-533. doi:10.1016/j.pubrev.2013.09.013
- Parks, M. R., & Floyd, K. (1996). Making friends in cyberspace. *Journal of Computer-Mediated Communication*, 1(4), JCMC144. doi:10.1111/j.1083-6101.1996.tb00176.x
- Pigg, K. E., & Crank, L. D. (2004). Building community social capital: The potential and promise of information and communications technologies, *Journal of Community Informatics*, 1(1), 58-73. Retrieved from <http://ci-journal.org/index.php/ciej/article/view/184/132>
- Postmes, T., & Brunsting, S. (2002). Collective action in the age of the internet: Mass communication and online mobilization. *Social Science Computer Review*, 20(3), 290-301. doi:10.1177/089443930202000306
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36, 717-731. doi:10.3758/BF03206553



- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891. doi:10.3758/BRM.40.3.879
- Reis, H. T., & Judd, C. M. (2014). *Handbook of research methods in social and personality psychology* (2<sup>nd</sup> ed.). New York, NY: Cambridge University Press.
- Robins, R. W., Fraley, R. C., & Krueger, R. F. (2007). *Handbook of research methods in personality psychology*. New York, NY: Guilford Press.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54-67. doi:10.1006/ceps.1999.1020
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99(6), 323-338. doi:10.3200/JOER.99.6.323-338
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*. London: Psychology Press.
- Sequeira, J., Mueller, S. L., & McGee, J. E. (2007). The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship*, 12(3), 275-293. doi:10.1142/S108494670700068X
- Shan, Y., & King, K. W. (2015). The effects of interpersonal tie strength and subjective norms on consumers' brand-related eWOM referral intentions. *Journal of Interactive Advertising*, 15(1), 16-27. doi:10.1080/15252019.2015.1016636
- Shirky, C. (2008). *Here comes everybody: The power of organizing without organizations*. New York, NY: Penguin.
- Shirky, C. (2011). The political power of social media: Technology, the public sphere, and political change. *Foreign Affairs*, 90(1), 28-41. Retrieved from <http://www.jstor.org/stable/25800379>
- Smith, T., Coyle, J. R., Lightfoot, E., & Scott, A. (2007). Reconsidering models of influence: The relationship between consumer social networks and word-of-mouth effectiveness. *Journal of Advertising Research*, 47(4), 387-397. doi:10.2501/S0021849907070407
- Soper, D.S. (2016). *A-priori Sample Size Calculator for Multiple Regression* [Computer software]. Retrieved from <http://www.danielsoper.com/statcalc>
- Social media fact sheet. (2017). Retrieved from Pew Research Center website: <http://www.pewinternet.org/fact-sheet/social-media/>
- Wang, R. Y., & Fesenmaier, D. R. (2002). Measuring the needs of virtual community members: An empirical study of an online travel community. In *Information and communication technologies in tourism 2002: Proceeding of the International Conference in Innsbruck, Austria, 2002* (pp. 105-114). Springer-Verlag Wien. Retrieved from <https://www.cabdirect.org/cabdirect/abstract/20023117235>

- Wang, R. Y., & Fesenmaier, D. R. (2004). Toward understanding members' general participation in and active contribution to an online travel community. *Tourism Management, 25*(6), 709-722. doi:10.1016/j.tourman.2003.09.011
- Wang, Y., Yu, Q., & Fesenmaier, D. (2002). Defining the virtual tourist community: Implications for tourism marketing. *Tourism Management, 23*(4), 407-417. doi:10.1016/S0261-5177(01)00093-0
- Wilson, D. J. (1990). *Science, community, and the transformation of American philosophy, 1986-1930*. Chicago, IL: University of Chicago Press.
- Wirtz, J., & Chew, P. (2002). The effects of incentives, deal proneness, satisfaction and tie strength on word-of-mouth behavior. *International Journal of Service Industry Management, 13*(2), 141-162. doi:10.1108/09564230210425340
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models an evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement, 76*(6), 913-934. doi:10.1177/0013164413495237

## Appendix

### Campaign Facebook page

The screenshot displays the Facebook page for 'Animal Protection'. The cover photo features a wolf and the text 'Get active for animals!' and 'SAVE OUR SPECIES'. The page has 6,015,830 likes. Two posts are visible: one from March 13 at 12:17pm with 725 likes and 138 shares, and another from March 10 at 3:34pm with 842 likes and 167 shares. The posts contain various images of animals and text related to animal welfare and conservation.

**Animal Protection** Home

Animal Protection

Get active for animals!

SAVE OUR SPECIES

Animal Protection

Sign Up Like Message

Timeline About Photos Likes More

PEOPLE

6,015,830 likes

Invite your friends to like this Page

ABOUT

We move the world to protect animals  
We put animals on the global agenda  
Together we can end animal suffering.  
We speak for the voiceless

PHOTOS

Post Photo / Video

Write something on this Page...

**Animal Protection**  
March 13 at 12:17pm · Edited ·

STOP animal abuse

200 pets killed or maimed every day

STOP ANIMAL CRUELTY

Like · Comment · Share · 725 · 53 · 138

**Animal Protection**  
March 10 at 3:34pm ·

SAVE OUR SPECIES

Baby animals belong in the wild with their mothers

Like · Comment · Share · 842 · 8 · 167