

## Introduction

The transformation of agricultural production practices over the years has been reflected in the transformation of agricultural communication practices (Gibson, 2013). Gone are the days of a communication field dominated by newspapers, television, and magazines (Varner, 2012). Enter the age of new media, “a term often used to describe Web-based communication technologies” (Telg & Irani, 2012, p. 228). One form of new media, social media, in particular, has allowed communities to be created and information to be shared regardless of geographical boundaries (Hoover, 2018). This Web 2.0 technology thrives on social interactions and two-way communication (Telg & Irani, 2012), which are characteristic of social networking sites (Schauer, 2015). Social media has radically changed communication processes since its introduction (Hoover, 2018). In 2018, the Pew Research Center reported that seven in 10 Americans used social media (Smith & Anderson, 2018). The primary purposes for their use included discovering news content, connecting with others, entertainment, seeking and sharing information. Furthermore, 14% of adults reported altering their views on an issue in the past year due to content they were exposed to via social media (Bialik, 2018).

The progression of communication technology has not only changed how agriculturalists communicate but also how the public learns and forms opinions about agriculture (Gibson, 2013). The public is turning to social media more and more to gain news, information, and to be educated about agriculture (International Plant Nutrition Institute, 2010). The changes brought on by modern media platforms have also prompted agriculturalists to assume different roles and engage in online conversations (Randolph et al., 2018; Wickstrom & Specht, 2016). Agriculturalists’ engagement through social networking sites offers the opportunity to facilitate dialogues and bolster real-world interactions (Nisbet & Kotcher, 2009). Specifically, Steede et al. (2016) suggested that agricultural advocacy efforts must be supported by agriculturalists’ abilities and desire to communicate through online media.

The advent of social media granted users the ability to share self-created content about agriculture, food, and natural resource (AFNR) topics that are relevant to their interests and the interests of their social group (Lamm et al., 2016). Varner (2012) suggested that agriculture and social media go hand-in-hand. “Social media is the platform and agriculture is the content” (Varner, 2012, p. 1). Hoover (2018) agreed about the vitality of social media to agricultural communications and its instrumental role in forming a community. Social media is a potential venue for the higher level of effective communication between producers and consumers called for by Telg and Irani (2012). The utilization of social media as a medium for communicating about agriculture is no longer a novelty or luxury but, practically, a requirement (Hoover, 2018). However, a study by Wickstrom and Specht (2016) found agriculturalists to be conspicuously absent from social media conversations surrounding AFNR issues.

However, Weir (2018) discovered young farmers (35 and younger) to be particularly active in discussions of AFNR issues on social media. These young farmers were defined as digital natives, those comfortable with digital technology given their upbringing in the digital age (Williams et al., 2012), and described as trendsetters in online agricultural advocacy efforts (Weir, 2018). Additionally, a 2016 Farm Futures survey found that young farmers use social media more than the average farmer (Wilson, 2016). Beyond general social media use, young farmers were also discovered to utilize the technology to advocate for agriculture more than other age ranges. Claims have been made that young agriculturalists “can share the message of agriculture better than any generation before” (Smith, 2018, para. 4).

This age group comprised of digital natives are often considered “technologically savvy and the most visually sophisticated of any generation” (Williams et al., 2012, p. 127). Digital natives are thought to possess numerous traits that allow them to seamlessly integrate technology into their lives, so much so that technology is likened to a knife and fork for these individuals. Digital natives have the propensity to build active online communities instead of being passive. This inclination toward online activity draws digital natives toward social networking sites, which affords opportunities for discussions about issues and involvement in cultural conversations (Williams et al., 2012) such as those pertaining to AFNR issues.

The demand for AFNR messages to be conveyed via social media (Hoover, 2018) provides a natural inclination to seek out digital natives (Williams et al., 2012) to fill the present gap of agriculturalists in online environments (Wickstrom & Specht, 2016). State FFA officers are one example of the individuals who could fulfill this role. State FFA officers are of particular interest when exploring AFNR communication in an online environment for two reasons. First, the roles and responsibilities outlined for officers include sharing messages about AFNR issues (National FFA Organization, 2018b); second, current state officers fall into the classification of digital natives. Additionally, the National FFA Organization is exploring new programmatic efforts that would target state FFA officers to serve as ambassadors for the #SpeakAg program by engaging in effective conversations on all sides of AFNR issues particularly on social networking platforms (National FFA Organization, 2018a). For these reasons, it becomes necessary to explore state officers’ social networking site engagement behaviors in these contemporary media environments. Examination of the beliefs behind state FFA officers’ social media behaviors would allow for the identification of behavioral, normative, or control beliefs that should warrant focus (Montaño & Kasprzyk, 2008) in efforts to increase the likelihood of young agriculturalists communicating about AFNR issues on social networking sites.

The theory of planned behavior (TPB) has been previously utilized as an expanded theory of reasoned action framework for understanding, predicting, and changing human behavior (Ajzen, 2012). The TPB has been found to be well suited for examining Internet-related behaviors such as those associated with social networking sites (Knabe, 2012). This theoretical framework was similarly used in this study to understand, predict, and explore how to change social media behaviors of state FFA officers.

## **Literature Review**

Much as the name implies, the theory of planned behavior “asserts that people consider the implications of behavior before action” (Knabe, 2012, p. 22). The TPB operates under the following precepts of a reasoned action approach to human behaviors: 1) individuals are cognizant of the feelings and thoughts that precede decisions and subsequent behaviors, and 2) behaviors are neither mindless or automatic, but rather originate from behavior relevant information that is processed by the individual (Ajzen, 2012).

With a goal of “predict[ing] and explain[ing] all manner of socially significant behavior” (Ajzen, 2012, p. 443) the TPB has evolved into a prominent reasoned action model. Like its precursor, the theory of reasoned action, the TPB relies on attitudes (beliefs about a behaviors’ likely outcomes) and subjective norms (social pressure from important others to perform a behavior) as predictors of behavioral intention. The TPB introduces the pressure of factors to control behavioral performance in the form of perceived behavioral control. All three components assimilate to serve as predictors for behavioral intention, the immediate precursor to

behavior. The combination of these factors has allowed the TPB to become a core schema for understanding, predicting, and changing behaviors (Ajzen, 2012).

The blend of attitudes toward the behavior, subjective norms about the behavior, and perceived behavioral control of the behavior establish behavioral intention (Ajzen, 2012). Thus, the greater the favorability of the attitude toward the behavior, the more positive the subjective norms, and the higher the level of perceived behavioral control, the stronger the intention to perform the behavior will be. Intention indicates an individual's readiness to perform the behavior in question (Knahe, 2012) and is thought to be behavior's immediate antecedent (Ajzen, 2012).

As previously mentioned, the TPB was often applied to understand, predict, and even change human behaviors (Ajzen, 2012). The theory's key to changing behaviors lies in its three predictor variables. Francis et al. (2004) posited that by altering these three predictors, the likelihood that a person's intent to perform a behavior can be increased and ultimately the likelihood of the person performing the behavior can be increased. Armitage and Conner (2001) reviewed 185 TPB studies and determined the subjective norms construct to be the least influential when predicting behavioral intent to perform various behaviors, which was confirmed by the work of Godin and Kok (1996) and Notani (1998). The TPB has been found to pair well when examining Internet-related behaviors such as those associated with social networking sites (Knahe, 2012).

In 2009, Pelling and White admitted that despite the growing popularity of social networking sites, very little was known about the psychological variables that influence individuals' engagement on these sites. To address this gap in literature, Pelling and White (2009) set out to test the effectiveness of an extended TPB model on predicting the intentions of young adults to engage in high levels of social networking site use. For these purposes, the target behavior was expressed as making four unique visits per day to social networking sites during the next week (Pelling & White, 2009).

The researchers discovered partial support for the TPB's ability to predict high levels of social networking site use in this context as both attitude and subjective norms were found to be statistically significant predictors of behavioral intentions (Pelling & White, 2009). This finding was taken to mean that there was a greater likelihood of a student intending to engage in high levels of social networking site use if they held more favorable attitudes toward the behavior and experienced greater social pressure to perform the behavior. Perceived behavioral control, however, was not found to be a statistically significant predictor of intention. The authors alleged that this insignificance could be attributed to digital natives' high volitional control over social networking site use, as the effects of perceived behavioral control are reduced when volition increases (Pelling & White, 2009).

White's work applying the TPB to predicting social networking site behaviors continued into 2010. Baker and White (2010) utilized the TPB to predict adolescents' engagement in frequent social networking site use. The target behavior was operationally defined as "using social networking sites [e.g. MySpace, Facebook, etc.] at least twice a day" (Baker & White, 2010, p. 1594). The research team observed this phenomenon through the lens of an extended TPB model that incorporated self-esteem and group norm measures in addition to the traditional TPB measures. Once again, partial support for the standard TPB model was discovered, this time revealing the statistically significant predictors to be attitude and perceived behavioral control (Baker & White, 2010).

TPB was utilized by van Zoonen et al. (2014) to examine “the motives of employees to engage in work related social media use – i.e. the use of personal social media accounts to communicate about work-related issues” (p. 164). Work-related social media use was operationally defined to only include public forms of expression of posting, tweeting, or publishing work-related content on social networking sites. An extended TPB model was used in this study including social identity expressiveness and self identity expressiveness in addition to the typical TPB direct measures. The findings of this study suggested support for the extended TPB model. Attitude had a statistically significant effect on behavioral intention, while subjective norms and perceived behavioral control did not (van Zoonen et al., 2014).

Additionally, Kim et al. (2016) applied TPB to predict selfie-posting behavior on social networking sites. The study explored participants’ intent to post selfies by utilizing an expanded model of TPB that included narcissism as an additional antecedent. The study concluded that attitude, subjective norms, perceived behavioral control, and narcissism were all found to be statistically significant predictors of the intention to post selfies on social networking sites. The authors suggested that this extended model of TPB was a good fit for explaining self-posting behavior (Kim et al., 2016).

### **Purpose and Objectives**

The purpose of this study was to examine the factors that influence state FFA officers’ behaviors of communicating about AFNR issues on social networking sites. The objectives that guided this study were to 1) describe respondents’ attitudes toward, subjective norms about, perceived behavioral control of, and intent to communicate about AFNR issues on social networking sites; and 2) determine how respondents’ attitudes, subjective norms, and perceived behavioral control predict intent to communicate about AFNR issues on social networking sites.

### **Methods**

The population of interest for this study was 2018-2019 state FFA officers representing 52 state associations including all 50 states and two U.S. territories: Puerto Rico and the U.S. Virgin Islands. A total of 347 state officers were elected in 2018-2019 by their respective state FFA association and considered for this study. State FFA officers’ instrumental role in sharing messages about AFNR issues (Florida FFA Association, 2018) made them prime candidates to investigate for this study. State officers naturally fit the mold of digital natives, given their comfortability with digital technology because of their upbringing in the digital age (Williams et al., 2012), making this population of particular interest when examining the phenomenon of online AFNR communication.

An email survey was utilized to carry out this study. The researcher-developed survey was distributed through a third-party vendor, Qualtrics. This study focused on analyzing the TPB data from a larger questionnaire. The larger instrument contained 82 items that measured respondent demographics, online and offline AFNR opinion leadership, and direct and indirect measures of TPB. The instrument also inquired about participants’ social networking site use of Facebook, Instagram, Twitter, and Snapchat for personal and AFNR purposes. These particular social networking sites were established as the parameters for this study as they reflected the chosen platforms of the National FFA Organization’s online presence (Rogers-Randolph et al., 2017).

This study focused on the analysis of the TPB scales from the larger survey. To control for face validity, a panel consisting of experts in the field of agricultural communication and individuals well-versed in the culture and norms of the National FFA Organization, agricultural education, and youth development declared that the instrument appeared to be appropriate to measure the desired information (Colton & Covert, 2007). To determine the reliability of the scales and to elicit feedback on survey design and phrasing of questions (Li, 2013), a convenience sample of past state FFA officers was used to conduct a pilot study. Prior to dissemination, approval for the study was granted by the University of Florida Institutional Review Board and the National FFA Organization's Request for Research Proposals board.

With 347 state FFA officers as members of the population, it was determined that the survey should be distributed to the entire population in an effort to conduct a census (Ary et al., 2010). The National FFA Organization provided a sampling frame that included 301 state officer email addresses. Due to privacy restrictions, the sampling frame provided by National FFA only included the email addresses of state officers, no other information was made available. After removing the invalid email addresses, the survey was administered to the accessible population of 276 state officers. The inability to contact all officers due to invalid email addresses was a limitation of this study. The officers were contacted three times by email to prompt them to participate in the survey. A total of 101 responses were received, three of which were unusable due to errors or incompleteness, resulting in 97 usable responses or a 35.1% response rate. The response rate was in line with the typical rates seen for organizational research (Baruch & Holton, 2008) and was therefore deemed acceptable given the context of this study.

According to Ajzen (2006), to utilize the TPB to measure a behavior of interest, it must be operationally defined in regard to its target, action, context, and time (TACT). For the purpose of this study, the target behavior was defined as: communicating (action) about agriculture, food, and natural resource issues (target) on social networking sites (context) at least twice a month (time). This study's operational definition of "communicating" was adapted from van Zoonen et al. (2014): posting, tweeting, publishing, sharing, or responding to AFNR-related content using the social networking platforms of Facebook, Instagram, Twitter, or Snapchat. For the context of this study, communication on social networking sites was limited to forms of public expression (Winter & Neubaum, 2016). Furthermore, AFNR issues were defined as those illustrating intersections between AFNR and society such as the relationships between these industries and the environment; food, fiber, and energy; animals; lifestyle; technology; and the economy (American Farm Bureau Foundations for Agriculture, 2017). The time element of the target behavior was defined as "at least twice a month" based on new programmatic efforts being proposed by National FFA for the future #SpeakAg program ambassadors, that would require state officers to post agriculturally-related information to social networking sites at least twice a month (National FFA Organization, 2018a). The operational definitions of communication, social networking sites, and AFNR issues were presented to participants at the start of the survey.

The TPB predictor variables of attitude, subjective norm, and perceived behavioral control are typically measured through standard scaling procedures referred to as direct measures (Ajzen, 2006). Attitudes toward using social networking sites to communicate about AFNR issues assessed respondents' evaluation of the behavior (Ajzen, 2012). The attitude variable reflected whether the behavior is positively or negatively valued by an individual (Ajzen, 2006). The study relied on the most commonly used scaling procedure for these constructs, a 7-point semantic differential response scale (Ajzen, 2012). This method employed evaluative bipolar

adjectives (Francis et al., 2004). The good-bad scale was included as it was indicative of overall evaluation. Additionally, instrumental items indicating whether the behavior accomplishes something (e.g., *useful-worthless*) and experiential items indicating how it feels to perform the behavior (e.g., *enjoyable-unenjoyable*) were included (Francis et al., 2004). The bipolar adjectives followed a single stem statement, “Communicating about AFNR issues on social networking at least twice a month is...” The items were formatted so that the scales were a mix of positive and negative endpoints to minimize bias (Francis et al., 2004). Adjective pairs that were presented with the negative term as the right endpoint were reverse-coded so that the positive adjective aligned with the high score of 7 and the negative term was associated with the low score of 1. The overall attitude score was calculated as the mean across items (Francis et al., 2004). Higher scores were indicative of a positive attitude toward the behavior (Knabe, 2012).

Ajzen (2006) described subjective norms as the perceived social pressure to engage or not to engage in a behavior. The direct measurement of subjective norms examines the opinions of people or groups important to the individual (Francis et al., 2004). Normative beliefs can be further broken down into injunctive norms and descriptive norms (Ajzen, 2006). Injunctive norms are defined as, “what important people think a person should do,” while descriptive norms are distinguished as, “what important people actually do” (Francis et al., 2004, p. 19). Ajzen (2006) stressed the importance of evaluating both injunctive and descriptive norms and this study complied. The scale utilized for subjective norm measurement followed the trend of varied positive and negative endpoints to reduce bias (Francis et al., 2004). Two items were re-coded so that the higher number reflected a positive assessment toward the behavior. Therefore, “high scores consistently reflect[ed] greater social pressure to perform the behavior” (Knabe, 2012, p. 128). The mean was calculated to find the overall subjective norm score (Francis et al., 2004).

In the context of this study, perceived behavioral control referred to the confidence individuals had that they were capable of communicating about AFNR issues on social networking sites at least twice a month (Ajzen, 2006). These items were measured on a 7-point Likert scale. Three items were included in this scale to meet Robertson’s (2017) recommendation of maintaining a minimum of three items in a scale. A high score was indicative of greater control over the target behavior (Francis et al., 2004).

Even though the relationship between intention and behavior cannot be described as perfect, intention has been found to be a reliable proximal measure for behavior (Francis et al., 2004). The intention construct consisted of three items with responses recorded on a 7-point, Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). Respondents were asked to select the option which best reflected their intentions to communicate about AFNR issues for the remainder of their state officer year. Three items were included in the scale to meet Robertson’s (2017) recommendation of a minimum of three items in an index.

All data for this study were analyzed using Statistical Package for the Social Sciences (SPSS) ® 25.0. Demographic data such as age, gender, ethnicity, area of residence, and year in school were analyzed using frequency measures. To analyze Objective 1, descriptive statistics and internal consistency measures were provided for all construct scales. Objective 2 relied upon a multiple regression to determine the influence of the predictor variables of attitudes, subjective norms, and perceived behavioral control on intent to perform the behavior. A forced entry method was selected as the chosen predictors for the model were based on sound theoretical reasoning and to avoid introducing additional limitations associated with other methods of regression into the analysis (Field, 2013). The assumptions of heteroscedasticity, non-linearity,

normality, independent errors, and multicollinearity were tested and satisfied (Field, 2013). Post hoc analyses were conducted to determine the significance of individual variables.

As seen in Table 1, a majority of the 97 respondents were female ( $n = 66, 66\%$ ) and identified as White ( $n = 92, 94.8\%$ ). Most participants indicated that they were from a rural community. The mean age of participants was 18.6 years old ( $SD = .77$ ) and the sample was mostly comprised of college freshmen and college sophomores. A quarter of participants ( $n = 25$ ) reported that they were not enrolled in school during their year as a state officer. Of these 25 officers not currently enrolled, 18 stated that their last complete year of school was as a high school senior. The pool of participants represented 34 of the 52 state FFA associations, with Arizona, Connecticut, Delaware, Iowa, Maine, Maryland, New Hampshire, New Mexico, New York, Puerto Rico, Rhode Island, South Dakota, Tennessee, Utah, Virgin Islands, Washington, and West Virginia associations being absent as they were not among the pool of respondents.

A descriptive analysis provided insight into state officers' social media use for general purposes and to communicate about AFNR issues. The most popular platform for general use was Instagram ( $n = 92, 94.8\%$ ), followed by Snapchat ( $n = 89, 91.8\%$ ), Facebook ( $n = 82, 84.5\%$ ), and Twitter ( $n = 60, 61.9\%$ ). Only one participant indicated that they did not use social networking sites. When using social networking sites to communicate about AFNR issues, Facebook was revealed to be the most popular for this purpose ( $n = 72, 74.2\%$ ), followed by Instagram ( $n = 54, 55.7\%$ ), Twitter ( $n = 46, 47.4\%$ ), and Snapchat ( $n = 31, 32\%$ ). Twelve officers (12.4%) reported that they did not use social media for this purpose.

**Table 1***Respondent demographics*

Variable	<i>n</i>	%
Gender		
Male	33	34.0
Female	64	66.0
Gender non-conforming	1	1.0
Race or ethnicity <sup>a</sup>		
American Indian or Alaska Native	2	2.1
Asian	2	2.1
Black or African American	1	1.0
Hispanic, Latino, or Spanish	3	3.1
Middle Eastern or North African	1	1.0
Native Hawaiian or Pacific Islander	0	0.0
White	92	94.8
I'd like to identify my own	1	1.0
Area of residence		
Rural area - farm	50	51.5
Rural area – non-farm	31	32.0
Suburban area	9	9.3
Urban area	5	5.2
Other	1	1.0
Current year in school		
High school senior	9	9.3
College freshman (0-29 credits completed)	27	27.8
College sophomore (30-59 credits completed)	27	27.8
College junior (60-89 credits completed)	8	8.2
College senior (90+ credits completed)	1	1.0
Not currently enrolled <sup>b</sup>	25	25.8
If not currently enrolled, last year of school completed		
High school senior	18	18.6
College freshman (0-29 credits completed)	5	5.2
College sophomore (30-59 credits completed)	1	1.0
College junior (60-89 credits completed)	1	1.0
Age		
17 years old	3	3.1
18 years old	37	38.1
19 years old	33	34.0
20 years old	8	8.2
21 years old	1	1.0

<sup>a</sup> Respondents could select more than one race or ethnicity. <sup>b</sup> For current year in school, if respondents selected “not currently enrolled” they were asked a subsequent question about the last year of school they completed.

## Results

### **Objective 1: Describe respondents' attitudes toward, subjective norms about, perceived behavioral control of, and intent to communicate about AFNR issues on social networking sites.**

The scale to measure the TPB variable of direct attitudes (Table 2) toward the behavior assessed respondents' overall evaluation of the behavior. The overall reliability for the scale was  $\alpha = .91$ . The grand mean for the attitude scale was 5.58 ( $SD = 1.08$ ). Higher scores were indicative of a positive attitude toward the behavior (Knabe, 2012).

**Table 2**  
*Attitudes toward the behavior scale*

Item	<i>n</i>	<i>M</i>	<i>SD</i>
Good: Bad*	97	5.76	1.23
Unpleasant: Pleasant	96	5.06	1.37
Useless: Useful	96	5.76	1.22
Worthless: Valuable	96	5.80	1.26
Enjoyable: Unenjoyable*	96	5.08	1.35
Important: Unimportant*	96	5.95	1.37

Note: Responses based on a semantic differential scale of 1 (negative attitude) to 7 (positive attitude) that was unique for each item and listed as the item above.

\*Reverse-coded item

The direct subjective norms scale aimed to measure the social pressure state FFA officers experienced to communicate about AFNR issues on social networking sites (Table 3). The reliability coefficient for the entire scale was  $\alpha = .80$ . The grand mean of the direct subjective norms scale was 4.56 ( $SD = 1.20$ ). Higher scores reflected greater social pressure to perform the behavior (Knabe, 2012).

**Table 3**  
*Subjective norms about the behavior scale*

Item	<i>n</i>	<i>M</i>	<i>SD</i>
Most people who are important to me think that I should or should not communicate about AFNR issues on social networking sites twice a month. (1 = I should, 7 = I should not)*	97	5.16	1.36
It is expected that I communicate about AFNR issues on social networking sites twice a month. (1 = strongly disagree, 7 = strongly agree)	97	3.84	1.89
The people in my life whose opinions I value would approve or disapprove of me communicating about AFNR issues on social networking sites twice a month. (1 = approve, 7 = disapprove)*	97	5.62	1.42
Most people who are important to me communicate about AFNR issues on social networking sites twice a month. (1 = strongly disagree, 7 = strongly agree)	97	3.90	1.62

**Table 3** Continued.

Item	<i>n</i>	<i>M</i>	<i>SD</i>
Most people who are similar to me communicate about AFNR issues on social networking sites twice a month. (1 = strongly disagree, 7 = strongly agree)	97	4.31	1.73

Note: Responses based on a scale of 1 to 7 that was unique for each item and listed with the item above.

\*Reverse-coded item

Direct perceived behavioral control gauged respondents' confidence in their capabilities to communicate about AFNR issues on social networking sites. The analysis considered a scale of three items with an overall Cronbach's alpha of  $\alpha = .82$ . The grand mean for respondents' perceived behavioral control was 5.86 ( $SD = 1.11$ ). A higher score was indicative of greater control over the target behavior (Francis et al., 2004).

**Table 4***Perceived behavioral control of the behavior scale*

Item	<i>n</i>	<i>M</i>	<i>SD</i>
I am confident that I could communicate about AFNR issues on social networking sites at least twice a month if I wanted to.	97	5.71	1.40
The decision to communicate about AFNR issues on social networking sites at least twice a month is in my control.	97	5.88	1.32
Whether or not I communicate about AFNR issues on social networking sites at least twice a month is entirely up to me.	97	6.00	1.17

Note: Responses based on Likert-type scale from 1 = strongly disagree to 7 = strongly agree.

This study followed the widely accepted practice of treating intent to perform the behavior as a proximal measure for the actual behavior (Ajzen, 2012). The scale resulted in an overall scale reliability of  $\alpha = .96$  (Table 5). The grand mean for intent to perform the behavior was 4.55 ( $SD = 1.54$ ). A higher score was indicative of greater intent to perform the defined target behavior (Francis et al., 2004).

**Table 5***Intent to perform the behavior scale*

Item	<i>n</i>	<i>M</i>	<i>SD</i>
I expect to communicate about AFNR issues on social networking sites twice a month.	97	4.25	1.54
I intend to communicate about AFNR issues on social networking sites twice a month.	97	4.72	1.59
I plan to communicate about AFNR issues on social networking sites twice a month.	97	4.67	1.68

Note: Responses based on Likert-type scale from 1 = strongly disagree to 7 = strongly agree.

**Objective 2: Determine how respondents' attitudes, subjective norms, and perceived behavioral control predict intent to communicate about AFNR issues on social networking sites.**

The model utilizing a forced entry method for the predictors of attitudes, subjective norms, and perceived behavioral control was statistically significant ( $F(3, 88) = 18.849, p = .000$ ). The predictors explained 39.1% of the variance in intention. Through post-hoc analysis (Table 6), subjective norms proved to be the only statistically significant predictor ( $t = 5.717, p = .000, B = .699$ ) suggesting that a unit increase in subjective norms would result in a .699 increase in behavioral intention. The Cohen's  $f^2$  of .642 indicated a large effect size.

Table 6  
*Post hoc analysis for influence of attitudes, subjective norms, and perceived behavioral control predicting intention*

Variable	B	t	p	R2	F
Constant	-.064	-.079	.937	.391	18.849
Attitudes	.139	1.112	.269		
Subjective Norms	.699	5.717	.000		
Perceived Behavioral Control	.104	.801	.425		

### Conclusions

The analysis of the TPB predictors on scales with upper limits of 7 revealed that, overall, respondents held favorable attitudes toward communicating about AFNR issues on social networking sites at least twice a month ( $M = 5.58, SD = 1.08$ ). The means for all items in the attitude scale were high. However, the instrumental attitude measures, those designating that the behavior accomplishes something (e.g., *useless/useful, worthless/valuable, and unimportant/important*), did carry higher means than those associated with experiential measures, how it feels to perform the behavior (e.g., *unpleasant/pleasant and unenjoyable/enjoyable*).

The insignificance of attitudes on the prediction of behavioral intent could be due to state officers possessing highly favorable attitudes without much variation toward all TACT elements of the target behavior. Communication (the action in the target behavior) is a competency for state officer selection and an expressed responsibility of state officers (National FFA Organization, 2018b). State officers ran for a leadership position in and AFNR organization (AFNR issues are the target of target behavior). State officers are also considered digital natives and are accustomed to social networking sites (the context for the target behavior) (Williams et al., 2012). Given these factors are similar for most state officers, there is a high likelihood that attitudes do not exert much influence in predicting intent.

A subjective norm grand mean of 4.56 ( $SD = 1.20$ ) documented that state officers do experience moderate social pressure to communicate about AFNR issues on social networking sites at least twice a month. Subjective norms have a track record of being a predictor variable for intent in the context of technology behaviors (Knabe, 2012) and social media behaviors (Pelling & White, 2009). The repeated significance of subjective norms in the context of technology and social media behaviors is intriguing given that past research determined the subjective norms construct to be the weakest (Armitage & Conner, 2001; Godin & Kok, 1996; Notani, 1998). Theoretically, this presents an intriguing question: Is the importance of subjective

norms unique to behaviors on social networking sites or are there larger theoretical implications (Knabe, 2012)?

While the significance of subjective norms might not align with all past TPB research, there are several possible explanations for its influence in this situation. Creating content and contributing to conversations on social media are often motivated by self-presentation and social interaction (Weeks et al., 2015). Those belonging to the adolescent age group are more likely to engage in social networking site behaviors when the behavior is normative among their social group (Baker & White, 2010). The permanence of online content, potential “public” ramifications of social media communication, and the contentious nature of AFNR issues all show the potential for other’s opinions to influence state officers’ behaviors in this context.

The perceived behavioral control grand mean of 5.86 ( $SD = 1.11$ ) established that officers do feel very confident and in control of their abilities to communicate about AFNR issues on social networking sites at least twice a month. All individual perceived behavioral control items displayed high means. The overall high perceived behavioral control is indicative of a behavior with high volitional control (Pelling & White, 2009). Perceived behavioral control did not predict intention, similar to the pattern of results in other TPB studies with adolescent populations in the context of social networking sites (Pelling & White, 2009). The insignificance of perceived behavioral control may be attributed to digital natives’ high volitional control over social networking site use (Williams et al., 2012), as the impacts of perceived behavioral control are reduced when volition increases (Pelling & White, 2009).

State officers did display moderate intent to communicate about AFNR issues on social networking sites with a grand mean of 4.55 ( $SD = 1.54$ ) and all items in this scale individually exhibited moderate means. The results of this study provided partial support for the efficacy of the TPB in predicting state FFA officers’ communication about AFNR issues on social networking sites, which is consistent with the meta-analytic findings of Armitage and Conner (2001).

## **Recommendations**

The statistical significance of subjective norms in this study prompts the understanding that communicating about AFNR issues on social media sites for state officers is predominately under subjective control, suggesting this is an area of interest to focus on in order to increase behavior performance. By changing the significant TPB predictor variables, one can increase the chance that a person will intend to take part in the desired action (Francis et al., 2004). When trying to increase state officers’ intent to communicate online, focus should be placed on changing their subjective norms. There may be room for growth in expressing expectations for state officers to engage in this behavior. It should be ensured that clear and consistent expectations are projected across all referent groups. The expectation of AFNR communication should be defined and provided to officers in advance of them applying for the position with repeated reiterations throughout the year.

Correct descriptive norms should be conveyed to officers so they have an accurate perception of how many other officers are engaged online to make the behavior normative among the population. Influential individuals should be encouraged to actively participate in online AFNR communication and promote the behavior, so it is salient to state officers. The examples set by the important individuals that state officers identify with, such as other state officers, national FFA officers, industry stakeholders, AFNR experts, FFA sponsors, and

numerous others have the potential to cause state officers to mirror that behavior and increase their own online engagement.

The TPB is a viable option for further exploration to understand, predict, and change online AFNR social media behaviors. The significance of subjective norms as a predictor of intent should be further explored to determine if it is unique to technological and social media behaviors or applicable to a broader context. Additional areas that were beyond the scope of this current study should be explored including the actual behavior of communicating about AFNR issues on social networking sites and barriers to doing so. This phenomenon should be examined through self-reporting methods or an observational study. Additional implications for practitioners and other populations should be investigated with further research. AFNR social media behaviors should also be examined with other populations of agriculturalists and digital natives and through a longitudinal study to be able to gain further insight into the phenomenon over time.

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