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Political Partisanship and Belief in Misinformation: Operationalizing Theory of Planned Behavior to Predict Intentions to Quit Social Media

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In the context of growing content moderation on mainstream social media platforms, this study applies the theory of planned behavior to predict individuals' intentions to quit social media. We found that attitude, subjective norms, and perceived behavioral control significantly predicted intentions to quit social media, accounting for 68% of variance among participants (N = 525) composition of the sample for this study proportionally mirrored U.S. census data. Political partisanship and belief in misinformation also slightly increased the predictability of the TPB model, suggesting that they can be used as moderators or antecedents of subjective norms in future. Potential implications of the study are discussed further.

Keywords: Theory of Planned Behavior, Content Moderation, Political Partisanship, Belief in Misinformation, Quitting Social Media

ollowing the rioting incident at the United States capitol on January 6, 2021, several mainstream social media platforms banned former President Donald Trump, citing that his social media posts violated their terms of use and that he was using their platforms to spread misinformation and incite violence (Delkic, 2022). Following this, around 70,000 users accused of spreading misinformation related to the incident were also removed by different social media platforms (Timberg & Harwell, 2021). Although this marked a new height of content moderation by the platforms, social media companies including Twitter and Facebook had

started tagging several posts made by the former president and others to be factually incorrect through tools of content moderation. This pattern of social media content moderation remained prevalent during 2020 and 2021 with an extensive focus on the posts related to COVID-19 and the U.S. presidential election. The platforms claimed that the content moderation was focused on curbing misinformation and enabling users to access verified information from official sources (Sanderson et al., 2021; Sharevski et al., 2022). However, such measures were not welcomed by everyone in the United States. A survey conducted by the *PEW Research Center* showed that at least 41% of Americans believed that social media companies were wrong to ban Donald Trump from their platforms for the accusations of spreading misinformation and inciting violence (McClain & Anderson, 2021). The opposition and support for this decision is largely divided along party lines in the United States i.e., Republicans more likely to oppose to the move (McClain & Anderson, 2021).

Similarly, the very adoption of content moderation tools by the social media companies also faces the same kind of opposition, as well as support, where individuals have expressed support for social media content moderation citing the need to make the online public sphere safer and welcoming, as compared to 45% of Americans attaching more importance to being able to speak their minds more freely on social media (Vogels, 2020). Investigating the impact of political partisanship on individuals' support for removal of the offensive content from social media, another study found that 52% of Republicans feel social media companies have no responsibility to use content moderation measures, while more than three-fourths of Democrats support such measures (Laloggia, 2019). The reasoning of this wide division among Americans on the matter of content moderation can easily be traced to the growing mistrust toward social media companies. One study found that it was a dominant perception among Republican Americans that social media content moderation only targets former President Donald Trump and conservative people (Auxier, 2020). Meanwhile, another research study showed that around three-quarters of people in the U.S. had very little confidence in large tech companies to prevent use of their platforms in negatively affecting the U.S. presidential election in 2020 (Green, 2020).

This demonstrates the clear division among the U.S. public on the need and legitimacy of social media content moderation, mistrust toward social media companies, and public perceptions of content moderation as an effort to create safe online public space or a hinderance to the freedom of expression. Following the ban of Donald Trump, media reports suggested that users are quitting mainstream social media platforms citing censorship of their opinions in the name of content moderation (Levine, 2021). Prior empirical evidence suggests that individuals' intentions to adopt a certain behavior are strongly associated with attitude, subjective norms, and perceived behavioral control (Ajzen, 1991; Anderson et al., 2013; Baker & White, 2010; Godin & Kok, 1996; Ho et al., 2015; Kelly & Breinlinger, 1995; Kinnally & Brinkerhoff, 2013). Therefore, this study applies the theory of planned behavior (TPB) to predict behavioral intentions of individuals to quit social media, as an extreme response to content moderation on social media platforms. Additionally, we use political partisanship and belief in misinformation as additional variables to understand their impact on behavioral intentions to quit using social media platforms. Some prior studies have focused on predicting intentions to limit use of social media platforms based on psychological factors including self-esteem (Boehm, 2019), understanding the intensity of social media usage driven by individuals' social circle and self-identity (Pelling & White, 2009), and predicting social media usage frequency based on group norms (Baker & White, 2010). To our best knowledge, no previous study has explored behavioral intentions to quit social media based on the reasoning of content moderation. In addition to filling this gap in prior TPB scholarship, this study

also aims to extend the TPB model to potentially include political partisanship and belief in misinformation as additional determinants of behavioral intentions associated with social media use. Building on the findings of Baker & White (2010), Boehm (2019), and Pelling & White (2009), this study explores whether core variables of TPB (i.e., attitude, subjective norms, and perceived behavioral control) can predict individuals' behavioral intentions to quit social media in the context of content moderation. We also study the role of political partisanship and belief in misinformation in predicting intentions to quit social media while seeking to expand the TPB framework. Our findings expand the existing TPB scholarship about social media use and identify new dimensions (i.e., role of political partisanship and belief in misinformation) in addition to other psychological and social variables.

LITERATURE REVIEW

Social Media Content Moderation

With user-generated content being their primary product, social media platforms have taken up the role of the modern gatekeeper of information i.e., determining which content can or cannot be posted or accessed by the users – a process commonly known as content moderation (Pfaffenberger, 1996; Liu et al., 2021). Although, a limited degree of content moderation has always been present on all mainstream social media platforms including Facebook, Twitter, Instagram, and YouTube. Initially content moderation was focused on countering online abuse and deceit among users (Dibbell, 1993; Gillespie, 2018; Grimmelmann, 2015), however, the degree of content moderation has evolved from use of designated personnel to computer algorithms for screening, removing, modifying, and banning online content as well as users (Brunton, 2013; Matias, 2016). Meanwhile, the scholarly support and opposition of content moderation hangs in the balance; some scholars consider it as a challenge to freedom of expression (Ananny, 2018; Ash, 2016) and others call it a necessity to counter online discrimination, sexism, misogyny, racism, and extremism (Gray, 2012; Herring, 1996; Marwick & Lewis, 2017; Reagle, 2013). A Pew Research Center poll also showed that Americans express their strongest support for the freedom of expression and show considerable tolerance to offensive speech (Wike, 2016). Particularly, the aggressive content moderation carried out by mainstream social media platforms regarding content about COVID-19 and the 2020 U.S. presidential election has come under severe public scrutiny and political debate (Liu et al., 2021). Under this aggressive approach, tens of thousands of social media posts were labelled as misinformation while thousands of users, including former U.S. president Donald Trump were suspended or banned by these platforms (Liu et al., 2021). Stakeholders including policymakers, tech companies, and academics have been trying to address the contentious nature of content moderation over time (Feiner, 2020; Jhaver et al., 2018).

Empirical studies have found that some users exhibit self-censorship and the spiral of silence in response to social media content moderation, as they believe that their opinions will be removed from the platforms (Aumayr & Hayes, 2017; Gibson, 2019; Lin et al., 2007; Wagner et al., 2009). Some other studies have also found that users regulate their social media usage behaviors (i.e., tendency, frequency, and withdrawal) based on their social and psychological dynamics (Baker & White, 2010; Boehm, 2019; Pelling & White, 2009). Building on these findings, this study applies the TPB framework to explore whether individuals' attitudes, subjective norms, and levels of perceived behavioral control can predict their intentions to quit social media amid aggressive content moderation by social media platforms.

Political partisanship and belief in misinformation have been used as additional variables to expand the TPB framework to predict behavioral intentions in this context.

Theory of Planned Behavior

Based on the presumption that individuals can willingly decide to adopt a behavior, the theory of planned behavior (TPB) asserts that individuals' intentions toward a certain behavior can predict whether they will eventually adopt the behavior under consideration. Ajzen (1991) claimed that an individual's intentions to adopt a behavior along with the probability of engaging in the behavior are directly proportional. Therefore, intentions for a behavior can be effectively assessed by attitude, subjective norms, and perceived behavioral control. The attitude is the extent to which somebody evaluates factors associated with the behavior in question as negative or positive. The subjective norms are the level of social pressure or expectations from significant others as perceived by an individual with reference to adopting a behavior. Perceived behavioral control is known to be the degree of control that an individual feels to possess in terms of adopting a certain behavior (Ajzen, 1991; Anderson et al., 2013; Baker & White, 2010). While assessing the reliability and validity of the TPB framework, Armitage & Conner, 2001 found that attitude, subjective norms, and perceived behavioral control can jointly predict up to 39% of the variance in behavioral intentions and up to 27% of the variance in individuals' actual behaviors. TPB has largely had previous applications in the areas of predicting social (Ho et al., 2015; Kinnally & Brinkerhoff, 2013), political (Kelly & Breinlinger, 1995), and healthcare related behavioral intentions (Godin & Kok, 1996), respectively among other areas of interest. Additionally, several studies have also applied TPB to predict behavioral intentions related to the use of new media technologies in recent years (Baker & White, 2010; Boehm, 2019; Pelling & White, 2009; Tian & Robinson, 2017).

Using the TPB framework to assess individuals' intentions to engage in excessive social media usage, Pelling & White (2009) found that attitude and subjective norms influence social media usage among adolescents. They also considered several psychological and social variables including self-identity and addictive tendencies to expand the TPB framework (Pelling & White, 2009). Similarly, Baker & White (2020) found that TPB variables along with group norms and self-esteem positively affected the intentions to use social media platforms. Boehm (2019) previously applied the TPB framework to study the influence of individuals' attitude, subjective norms, and perceived behavioral control on intentions to reduce the usage of social media platforms. Boehm (2019) found that intensity of social media use mediated through subjective norms to improve the predictive power of the covariates within the TPB model. However, Cameron (2010) used the TPB framework to study the routinized use of social media platforms and found that attitude, subjective norms, and perceived behavioral control did not correctly predict such behavioral intentions. Many of the prior studies in this area have utilized the TPB framework to predict behavioral intentions of social media use in a discreet context. These findings indicate that psychological, social, and/or political context of the operationalization of variables associated with the TPB model have direct influences upon the predictive power of the framework.

Building on the extant scholarship on social media usage and the TPB framework, we operationalize attitude, subjective norms, and perceived behavioral control in the context of social media content moderation. Thus, it has been hypothesized that TPB will predict individuals' intentions to quit social media amid content moderation.

H1: Attitudes toward quitting social media will predict intentions to quit social media.

H2: Subjective norms about quitting social media will predict intentions to quit social media.

H3: Perceived behavioral control over quitting social media will predict intentions to quit social media.

Based on the findings of Armitage & Conner (2001), prior studies using the TPB framework to study social media usage intentions have also used some additional variables to increase its predictive power and ability to measure individuals' behavioral intentions more effectively. These variables usually identify the scope and distinctive nature of the studies. For example, Boehm (2019) considered individuals' existing intensity to use Facebook, Instagram, and Snapchat along with the main variables present within the TPB model. Pelling & White (2009) also added self-identity and past behavior to correspond with the main variables housed within the TPB framework, to predict behavioral intentions of high-level use of social networking websites. Tian & Robinson (2017) used demographic data of the participants to make relational predictions of addictive use of social networking websites. Baker & White (2010) incorporated self-esteem and group norms in unison with the predictive variables of the TPB model, to predict individuals' frequency of social media usage.

The existing literature also asserts that sometimes the additional variables appear to predict users' intentions more accurately as compared to the fundamental elements of the TPB model. This predictive role might be sometimes limited or other times completely missing. Baker & White (2010) found that young users' behavioral intentions related to social media use are greatly affected by how they perceive their friends act regarding this issue, as compared to other significant people such as their parents (Baker & White, 2010). Similarly, Pelling & White (2009) concluded that attitude and subjective norms correctly predicted behavioral intentions, however, perceived behavioral control did not play a significant role in this. Contrary to these, Boehm (2019) inferred that TPB variables effectively predicted the intention to limit social media use but additional variables such as usage intensity did not function as a direct predictor of intentions. Instead, usage intensity mediated its effect through the subjective norms of the participants.

In this study, we propose to include political partisanship and belief in misinformation as additional variables for analysis, as it has been suggested by previous literature that political beliefs of individuals influence their opinions toward social media content moderation. Similarly, the belief in misinformation would also enable us to operationalize the TPB framework in the context of content moderation and the spread of misinformation on social media platforms. We assert that the intentions to engage in social media use or limit social media use have largely been studied in social and psychological contexts, while this study aims to explore this phenomenon in the context of individuals' political partisanship and their tendency to trust misinformation. This study aims to contribute to literature as well as expand the TPB framework through the use of additional variables to predict behavioral intentions related to social media use.

Political Partisanship

Political partisanship is known to be an individual's affiliation with a certain political party (e.g., Republicans or Democrats in the United States), and it often signifies their long-term, influential, and psychological connections with that party (Campbell et al., 1980). The scholars have argued that partisanship is a type of social identification and individuals tend to derive their concept of self-being through emotional importance and value attached to the membership of a group, like a political party (Holmberg, 2007). This sense of belongingness supersedes several cognitive factors giving rise to an affective role of partisanship in decision making (Carlin & Love, 2018; Green et al., 2002; Holmberg,

2007). Based on these inferences, political partisanship is often termed as significant demographic information, which plays a determining role in how the people associated with a certain political party would exhibit a behavior in the given circumstances. However, literature is scarce on exploring the inclusion of political partisanship as a variable with the potential to extend the scope of the TPB framework.

Meanwhile, a *PEW Research Center* study found that Americans identifying themselves as Republicans often consider that the mainstream social media is biased against them in terms of content moderation and believe that content leaning toward Democrats is less likely to be moderated or removed (Vogels et al., 2020). Contrary to this, many Americans support the practice of content moderation to ensure online safety (Vogels et al., 2020). This signifies that political partisanship can potentially play a key role in intentions to adopt a behavior associated with social media content moderation.

RQ 1: What is the relationship between political partisanship and intentions to quit social media? **Belief in Misinformation**

One key reason behind the use of content moderation is to counter the spread of online misinformation through networked users (Gillespie, 2018; Grimmelmann, 2015). Large tech companies like Facebook and Twitter have also announced and defended enhanced content moderation with reference to the 2020 U.S. presidential election, citing the spread of misinformation (Feiner, 2020). Prior studies have established that when information originates from one's trusted sources or it endorses their political or social view of the world, they are more likely to accept it as true, even if it is completely incorrect (Kahan, 2017). Similarly, the empirical evidence also points out that political identities and affiliations can serve as strong motivations to endorse misinformation when it impugns their political opponent (Flynn et al., 2017; Miller et al., 2016). Stecula (2020) found the motivations to believe and associate oneself with misinformation might be amplified when the public opinion is largely divided and as a result even the trusted political leaders also support misinformation. These studies support the notion that tendency to believe misinformation could potentially lead individuals to express mistrust in the platforms which remove, modify, or label the information as misinformation, which they consider to be correct.

This study aims to treat belief in misinformation as an additional variable applied with the hope of extending the TPB model to more accurately predict individuals' behavioral intentions to quit social media in the context of content moderation: a previously unexplored dimension of the empirical research.

RQ2: What is the relationship between belief in misinformation and intention to quit social media?

Prior research that has applied the TPB model to study behavioral intentions related to the use of social media have tested the predictive ability of the theory's variables through problematic participant sample selection practices. For example, Boehm (2019) conducted a survey of 216 college students, Pelling & White (2009) used 233 university students for their survey, and Baker & White (2010) used a survey of 160 university students to draw their inferences. To our best knowledge, none of these studies have used nationally representative sampling to recruit participants and thus the generalizability of their findings is limited. Therefore, this study recruited a nationally representative quota sample of participants, which was informed by current U.S. census data to ensure that our findings have better validity and generalizability. Additionally, we argue that we have applied the TPB framework to study a previously unexplored behavioral intention (i.e., quitting the use of social media platforms) in the

context of content moderation. We also aimed to extend the TPB framework through testing the potential of political partisanship and belief in misinformation as additional predictive variables that could warrant addition to the model.

Conceptual Model

The conceptual model outlined by the hypotheses and research questions has been included in Figure 1. Building on the contextual presumption that individuals might intend to quit social media platforms (i.e., behavioral adoption), we incorporate the core variables of the theory of planned behavior (TPB) along with political partisanship and belief in misinformation into our conceptual model. Ajzen (1991) argued that an individual's intentions to adopt a behavior can be explained by attitude, subjective norms, and perceived behavioral control. The attitude is the evaluation of the factors associated with the behavior in question while the subjective norms are the level of social pressure perceived by individuals with reference to adopting a behavior, and the perceived behavioral control is the degree of individuals' control to adopt a behavior (Ajzen, 1991; Anderson et al., 2013; Baker & White, 2010). Additionally, we have operationalized the political partisanship as a self-report measure of individuals' political affiliation on a 7-point Likert scale and the belief in misinformation as a tendency to trust the unverified information.

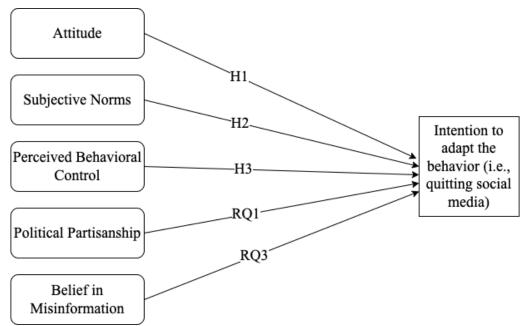


Figure 1. Conceptual model of the research questions and the proposed hypotheses.

METHODS

Sample

Data was collected from a sample of 525 individuals aged 18 or more using Qualtrics quota panels based on current U.S. population demographic census data. The participants were offered a self-administered survey as part of a large institutional study during March 2021. In order to ensure data collection in an ethical manner, the approval gained from the Institutional Review Board of a U.S. research university was also obtained. Table 1 includes key demographics of the participants.

Table 1 Demographics of the participants included in the sample.

Variables	Percentage/Mean	SD	
Age	Mean = 46.45	18.06	
Gender			
Male	50.10%		
Female	49.90%		
Income			
Less than \$20,000	17.71%		
\$20,000 to \$34,999	11.62%		
\$35,000 to \$ 49,999	10.48%		
\$50,000 to \$74,999	20.38%		
\$75,000 to \$99,999	12.19%		
\$100,000 to \$149,999	17.90%		
\$150,000 to \$199,999	5.90%		
\$200,000 or more	3.81%		
Race			
White	61.90%		
Black or African American	12.38%		
Hispanic	17.33%		
Asian	5.33%		
Other	3.04%		
Political Partisanship			
Very Strong Democrat	24.57%		
Not So Strong Democrat	15.43%		
Democratic-leaning Independent	6.48%		
Independent	24.38%		
Republican-leaning Independent	5.52%		
Not So Strong Republican	8.76%		
Very Strong Republican	14.86%		

Notes. Total Participants = 525

Design

The participants (N=525) were recruited through a Qualtrics panel after they agreed to participate in the study through an informed consent form offered at the start of the self-administered survey. It was ensured by the Qualtrics that participants represented key demographic features in proportions equal to the current U.S. census data based on the self-reported demographic responses from the participants. After agreeing to participate in the study, the participants answered a general question about their social media use to document their self-reported past behavior, followed by questions about political partisanship, belief in misinformation, attitude, subjective norms, perceived behavioral control, and intentions, respectively. Participants' demographic data were also gathered to develop the discussion of measured variables as well as to provide future directions for further application of the TPB

framework to study social media use. Upon completion of the survey, the participants were also paid monetary compensation (i.e., 7 USD).

Measures

Social Media Use. Participants' experiences of using different mainstream social media platforms were measured through one item on a 7-point Likert scale, with extreme values anchoring the scale ranging from Strongly Disagree to Strongly Agree, where 4 represented no opinion: "I have actively used at least one mainstream social media platform (e.g., Facebook, Instagram, Twitter, Snapchat etc.) during the year 2020." The respondents showed a moderate to high use of social media platforms in the year 2020 (M = 2.02, SD = 1.85). This meant that participants of the study were dominantly using social media in their recent past and the exploration of their intention to quit social media in the scope of this study was highly relevant.

Political Partisanship. The measures for political partisanship were adapted from Abramson et al. (2003) and Eveland & Shah (2003), and the following two items were developed on a 7-point Likert scale:

- 1) How do you identify yourself in terms of political views? ("Very Strong Democrat," "Not So Strong Democrat," "Democratic-leaning Independent," "Republican-leaning Independent," "Not So Strong Republican," and "Very Strong Republican").
- 2) I believe my political partisanship is very important for me (ranging from Very Strongly Disagree to Very Strongly Agree with Neutral being represented by 4).

Both items were assessed for reliability and Cronbach's $\alpha = .20$ indicated that only one of the items could be used for an effective measurement of the variable. That is why the second item measuring significance of one's political partial partial was used for operationalization of the variable (M = 2.73, SD = 1.60).

Belief in Misinformation. Individuals' belief in misinformation was operationalized through three-items based on three individual political claims that have already been debunked as misinformation by the state officials and organizations (Alba & Frenkel, 2021; Knowles & Hamburger, 2021; Shabad, 2021). The participants were asked to respond to the statements on a 7-point Likert scale, with extreme values anchoring the scale ranging from Strongly Disagree to Strongly Agree, where 4 represented no opinion. The statements included:

- 1) A group named Antifa played at least some role in violent incidents that occurred at the United States Capitol Building on January 6.
- 2) The violent events at the United States Capitol Building on January 6 were staged and did not take place as depicted by the news media.
- 3) The integrity of the 2020 U.S. presidential election was questionable due to systematic voter fraud.

These items were assessed for reliability – which indicated high acceptability – combined and averaged to form a scale to measure belief in misinformation (M = 4.04, SD = 1.89, Cronbach's $\alpha = .79$).

Theory of Planned Behavior. Although the survey questions were designed based upon Ajzen (2013), the core variables of the TPB model were further operationalized by adapting the questions from Boehm (2019) and Ho et al. (2017). Each of the variables - attitudes, subjective norms and perceived behavioral control were measured through 4 items, respectively set along a 7-point Likert scale with

extreme values anchoring the scale ranging from Strongly Disagree to Strongly Agree, where 4 represented a neutral opinion. Intentions were measured through 7 items on a similar 7-point Likert scale.

Attitude toward quitting social media was measured through the following four items:

- 1) I think quitting social media is a good idea.
- 2) I believe it would be beneficial for me to quit social media.
- 3) I consider the people should quit social media.
- 4) I think quitting social media is a better choice.

These items were assessed for reliability – which indicated very high acceptability – combined and averaged to form a scale to measure attitude (M = 3.60, SD = 1.76, Cronbach's $\alpha = .94$).

Subjective norms about quitting social media were measured through the following four items:

- 1) Many people like me think that quitting social media is good idea.
- 2) Many people in my circle don't use social media.
- 3) The people that I turn to advice expect me to stop using social media.
- 4) Many of my friends think that it is better to quit social media.

These items were assessed for reliability – which indicated very high acceptability – combined and averaged to form a scale to measure subjective norms (M = 4.42, SD = 1.59, Cronbach's $\alpha = .88$).

Perceived behavioral control about quitting social media was measured via the following four items:

- 1) I think quitting social media is possible for me.
- 2) It is completely up to me if I want to stop using social media.
- 3) I believe that if I want to, I can quit using social media.
- 4) If I decide to quit social media, I think it will be easy for me to accomplish that goal.

These items were assessed for reliability – which indicated very high acceptability – combined and averaged to form a scale to measure perceived behavioral control (M = 2.56, SD = 1.35, Cronbach's $\alpha = .80$).

Intention to quit social media was measured using the following seven items:

- 1) I intend to completely stop using social media.
- 2) I intend to stop messaging my friends on social media.
- 3) I intend to stop posting my images on social media.
- 4) I intend to quit checking my social media notifications.
- 5) I intend to stop managing my social media profiles.
- 6) I intend to quit exploring my social media feeds.
- 7) I intend to stop posting my opinions on social media.

These items were assessed for reliability – which indicated very high acceptability – combined and averaged to form a scale to measure intention (M = 4.15, SD = 2.0, Cronbach's $\alpha = .97$).

Results

A correlation matrix showing significant values between intentions, attitude, subjective norms, perceived behavioral control, political partisanship, and belief in misinformation has been reported in Table 2. It shows that all three core variables of the TPB framework were significantly correlated with each other and intentions. Additionally, belief in misinformation and political partisanship were also significantly correlated, indicating Republicans were more likely to believe misinformation. Intention to

quit social media was also significantly correlated with belief in misinformation. Among TPB variables, political partisanship was negatively correlated with attitude only.

Table 2
Correlation matrix of independent and dependent variables.

		Perceived			
Pearson	Subjective	Behavioral	Political	Belief in	
Correlation	Norms	Control	Partisanship	Misinformation	Intention
Attitude	.72**	.53**	098*	.16**	.77**
Subjective					
Norms		.44**	.07	.30**	.70**
Perceived					
Behavioral					
Control			.04	01	.59**
Political					
Partisanship				.21**	07
Belief in					
Misinformation					.19**
Misinformation		1 0 0 1 1 1	(2 11 1)		.19**

^{**}Correlation is significant at the 0.01 level (2-tailed).

This study employed hierarchical linear regression analysis to assess the given hypotheses and research questions regarding predicting individuals' intentions to quit social media using SPSS version 27.0. For this, the three primary variables of the TPB model i.e., attitude, subjective norms and perceived behavioral control were entered on step 1, followed by political partisanship and belief in misinformation entered on step 2 and 3, respectively. A significant regression equation was determined as [(F(3, 521) = 368.94, p < .001)] with an R-squared value of .680 for attitude, subjective norms, and perceived behavioral control. For step 2, when the political partisanship was added, a significant regression equation was [(F(4, 520) = 277.75, p < .001)] with an R-squared value of .681 was found. This showed a very slight increase of 0.1% in the predictability of the model. Finally, the belief in misinformation was added on step 3 and a significant regression equation was found [(F(5, 519) = 223.93, p < .001)] with an R-squared value of .683. It indicated that the predictability of the model was further increased by 0.2% after addition of the variable belief in misinformation. Step 1 referred that the three variables of the TPB were significant predictors of intention to quit social media in the model. While the addition of political partisanship and belief in misinformation did slightly increase the predictability, they were not significant independent predictors in the model.

Overall, the analysis suggested that all three variables of the TPB model (i.e., attitudes, subjective norms, and perceived behavioral control) were significant predictors of individuals' intentions to quit social media, accounting for around 68% of variance among participants. Hence, hypotheses H1, H2 and H3 of the study were well-supported. Additionally, the political partisanship (RQ1) and the belief in misinformation (RQ2) were found to slightly contribute toward prediction of individuals' intentions to quit social media, accounting for an additional 0.1-0.2% variance among participants, respectively. The findings of hierarchical linear regression analysis are included in Table 3.

^{*}Correlation is significant at the 0.05 level (2-tailed).

Table 3
Result of hierarchical linear regression analysis.

	Step 1			Step 2			Step 3		
Variables	В	Std. Error	Beta	В	Std. Error	Beta	В	Std. Error	Beta
Attitude	.51	.04	.45**	.50	.04	.44**	.50	.04	.44**
Subjective									
Norms	.36	.04	.28**	.37	.05	.29**	.35	.05	.28**
Perceived									
Behavioral									
Control	.34	.04	.22**	.33	.04	.22**	.35	.04	.23**
Political									
Partisanship				04	.03	03	06	.03	04
Belief in									
Misinformation							.05	.03	.05
R-squared		.680			.681			.683	

^{*}p < .01.

DISCUSSION

As the prior studies indicated that the TPB model significantly predicted individuals' intentions related to social media usage in the context of psychological and social factors, this study also confirms the effectiveness of the TPB framework in a politically motivated context. The prior studies were confined to explore intentions to use social media and limit social media use (Baker & White, 2010; Boehm, 2019; Pelling & White, 2009), while this study extends this scope by considering intentions to quit social media in the context of content moderation. The participants were asked to report whether they had used at least one of the mainstream social media platforms in the year 2020 (i.e., I have actively used at least one mainstream social media platform e.g., Facebook, Instagram, Twitter, Snapchat etc. during the year 2020) on a 7-point Likert scale to ensure that the responses were collected from relevant participants. The responses to this statement suggested that participants were moderate to heavy level users of the leading social media platforms in the year 2020. It meant that any intention to quit social media expressed by the participants was somehow developed in early 2021 (i.e., the time of data collection). This refers to the actual context of this study where individuals' intentions to quit social media have been predicted in the context of debate about social media content moderation which followed removal of former U.S. president Donald Trump from leading social media platforms.

Furthermore, our findings showed that attitude, subjective norms, and perceived behavioral control jointly predicted 68% of the variance of intentions to quit social media. Where previous studies had merely predicted 35% of the variance in terms of intentions to use social media more frequently (Baker & White, 2010); and 37% of the variance in intentions to limit use of social media (Boehm, 2019). Armitage & Conner, 2001 had found that attitude, subjective norms, and perceived behavioral control could jointly predict up to 39% of the variance in behavioral intentions, while assessing the reliability and validity of the TPB framework. However, the current study found a substantially high proportion of predicted intentions to quit social media (68%).

^{**}p < .001.

The previously existing scholarship had also found that the introduction of some additional variables such as group norms and social media usage intensity had negatively affected the predictability of the TPB framework (Baker & White, 2010; Boehm, 2019). However, our findings indicated that the additions of political partisanship and belief in misinformation to the original TPB variables did not negatively impact the predictive power of the model. However, a very slight increase in the predictability was seen for political partisanship and belief in misinformation (.1% and .2 %, respectively). The correlation analysis also indicated that belief in misinformation was significantly correlated with intentions to quit social media, indicating that social media content moderation aimed at countering the spread of misinformation was leading to such intentions among those who believed in misinformation. However, political partisanship was not correlated with the intentions to quit social media. Political partisanship showed a significant negative correlation with attitudes toward quitting social media (r = -.098) and an insignificant correlation with intentions to quit social media (r = -.07), which can be interpreted as the more the individuals indicated to be a very strong Republican in response to "How do you identify yourself in terms of political views" (M = 2.73, SD = 1.60) the less likely they were to show a favorable attitude (M = 3.60, SD = 1.76) toward quitting social media and express an intention (M = 4.15, SD = 2.0) to adopt this behavior. This indicates that the tendency to quit social media is caused by individuals' tendency to believe in misinformation and not by the political partisanship of individuals.

The findings of the hierarchical regression and Pearson's correlation show that the impact of political partisanship and belief in misinformation on the predictability of the TPB framework was very slight, however, belief of misinformation significantly correlated with intentions to quit social media as well as attitude, subjective norms, and political partisanship. Furthermore, the beta value of political partisanship indicated a negative value when added to the regression model on step 2 and upon addition of belief in misinformation on step 3 the negative value further increased. This indicated the presence of repression among the variables, referring to the notion that some of them were somewhat measuring the same elements. A statistically significant correlation between political partisanship and belief in misinformation also confirms this (r = .21, p < .01). Upon stepwise subtraction of each variable from the regression model one by one, it was found that one of the TPB variables, (i.e., subjective norms) was also influencing the beta value of political partisanship to be -0.03, which further increased to -0.04 upon addition of belief in misinformation. These findings indicate that political partisanship and belief in misinformation if operationalized in a more comprehensive way can potentially serve as more influential variables in addition to the TPB model. This assertion can also be used to recommend the use of these two variables as potential moderators or antecedents of subjective norms in future studies to explore behavioral intentions about social media usage through the theory of planned behavior. Using these additional variables as moderators of subjective norms also leads to enhanced overall predictability of intentions based upon the TPB model.

LIMITATIONS AND FUTURE DIRECTIONS

Although our findings indicated an exceedingly high predictability of behavioral intentions based on the TPB framework, there are some limitations that we want to acknowledge. The first limitation inherent to the nature of investigation within this study is the self-report nature of survey responses. However, the representativeness of this survey sample was remarkably high. In particular, the high

degree of generalizability that it yielded was effective in offsetting many of these potential limitations within the current research design. Regarding measurement of belief in misinformation, it may be beneficial for future studies to use a larger bank of diverse scale measures to establish a baseline for this variable. Rather than measuring the variable of belief in misinformation using information from an isolated event, with more potential for fostering polarizing opinions, such as the 2020 presidential election, which was applied to this present study.

Further, the next step should seek to increase the amount of research studies that explore the variables investigated within this paper but operationalized in a design and methodology conducive to establishing clear causation between isolated variables. An ideal methodology for future studies in this area might be an experimental or quasi-experimental research design. Such a research design could allow researchers to study main and combinational effect of different variables to estimate their causal relationship with individuals' intentions to stop using social media platforms. It is recommended that further research also explore these variables within the present model amongst varied topic-based context areas. Finally, additional research can also help us to identify whether behavioral intentions related to social media usage are successfully translated into actual behavior adoption or not. An experiment or quasi-experimental design would be ideal to elicit these types of observations, as a greater degree of control can be exercised by the researcher over the measurement of the given variables. Additionally, this design would also allow for a shift in behavioral intentions to actually be observed and interpreted. This will result from the participants coming into contact with the experimentally manipulated stimuli and the post-questionnaire for such a study would allow any shifts in behavioral intentions influenced by the stimuli to be recorded.

REFERENCES

- Abramson, P. R., Aldrich, J. H., & Rhode, D. W. (2003). *Change and Continuity in the 2000 and 2002 Elections*. Washington: CQ Press.
- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), p. 179-211
- Ajzen, I. (2013). *Theory of planned behaviour questionnaire*. Retrieved from Measurement Instrument Database for the Social Sciences: www.midss.ie
- Alba, D., & Frenkel, S. (2021, January 6). *Watch out for this misinformation when Congress meets to certify the election*. Retrieved from The New York Times: https://www.nytimes.com/2021/01/06/business/election-fraud.html
- Ananny, M. (2018). *Networked press freedom: Creating infrastructures for a public right to hear.* Cambridge, MA: MIT Press.
- Anderson, C. N., Noar, S. M., & Rogers, B. D. (2013). The persuasive power of oral health promotion messages: a theory of planned behavior approach to dental checkups among young adults. *Health Communication*, 28(1), p. 304-313.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A metaanalytic review. *British Journal of Social Psychology*, 40(4), p. 471-499.
- Ash, T. G. (2016). Free speech: Ten principles for a connected world. New Haven, CT: Yale University Press.
- Aumayr, E., & Hayes, C. (2017). Separating the wheat from the chaff: Evaluating success determinants for online Q&A communities. *ICWSM*, (pp. 476–479).
- Auxier, B. (2020). How Americans see U.S. tech companies as government scrutiny increases. Washington DC: PEW Research Centre.
- Baker, R. K., & White, K. M. (2010). Predicting adolescents' use of social networking sites from an extended theory of planned behaviour perspective. *Computers in Human Behavior*, 26(6), p. 1591-1597.
- Boehm, N. (2019). Stuck on Social Media: Predicting Young Adults' Intentions to Limit Social Media Use. *The Journal of Social Media in Society*, 8(2), p, 143-166.
- Brunton, F. (2013). Spam: A shadow history of the Internet. Cambridge, MA: MIT Press.
- Cameron, R. (2010). *Ajzen's Theory of Planned Behavior Applied to the Use of Social Networking by College Students*. https://digital.library.txstate.edu/handle/10877/3298
- Campbell, A., Converse, P. E., & Miller, W. E. (1980). The American Voter. Chicago, IL: University of Chicago Press.

- Carlin, R., & Love, G. (2018). Political Competition, Partisanship, and Interpersonal Trust in Electoral Democracies. *British Journal of Political Science*, 48(1), p. 115-139.
- Delkic, M. (2022, May 10). Trump's banishment from Facebook and Twitter: A timeline. *The New York Times*. https://www.nytimes.com/2022/05/10/technology/trump-social-media-ban-timeline.html
- Dibbell, J. (1993). A Rape in Cyberspace, or How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database into a Society. *Village Voice*, 21(1), p. 36-42.
- Eveland, W. P., & Shah, D. V. (2003). The Impact of Individual and Interpersonal Factors on Perceived News Media Bias. *Political Psychology*, 24(1), p. 101-117.
- Feiner, L. (2020, November 17). Facebook and Twitter defend election safeguards and moderation practices before the Senate. Retrieved from CNBC: https://www.cnbc.com/2020/11/17/facebook-twitter-defend-election-moderation-practices-before-senate.html
- Flynn, D. J., Nyhan, B., & Reifler, J. (2017). The nature and origins of misperceptions: Understanding false and unsupported beliefs about politics. *Advances in Political Psychology*, 38(1), p. 127–150.
- Gibson, A. (2019). Free Speech and Safe Spaces: How Moderation Policies Shape Online Discussion Spaces. *Social Media* + *Society*, p. 1–15.
- Gillespie, T. (2018). Custodians of the Internet: Platforms, content moderation, and the hidden decisions that shape social media. New Haven, CT: Yale University Press.
- Godin, G., & Kok, G. (1996). The theory of planned behavior: a review of its applications to health-related behaviors. *American Journal of Health Promotion*, 11(2), p. 87-98.
- Gray, K. L. (2012). Intersecting oppressions and online communities. *Information, Communication & Society, 15*(1), p. 411–428.
- Green, D., Palmquist, B., & Schickler, E. (2002). Partisan Hearts and Minds. New Haven, CT: Yale University Press.
- Green, T. V. (2020). Few Americans are confident in tech companies to prevent misuse of their platforms in the 2020 election. Washington DC: PEW Research Centre.
- Grimmelmann, J. (2015). The virtues of moderation. Yale Journal of Law and Technology, 17(1).
- Herring, S. C. (1996). Gender and democracy in computermediated communication. In R. Kling, *Computerization and controversy: Value conflicts and social choices* (pp. 476–489). San Diego, CA: Academic Press.
- Ho, S. S., Liao, Y., & Rosenthal, S. (2015). Applying the theory of planned behavior and media dependency theory: predictors of public pro-environmental behavioral intentions in Singapore. *Environmental Communication*, 9(1), p. 77-99.
- Ho, S., Lwin, M. O., & Lee, E. W. (2017). Till logout do us part? Comparison of factors predicting excessive social network sites use and addiction between Singaporean adolescents and adults. *Computers in Human Behavior*, 75(1), p. 632-642.
- Holmberg, S. (2007). Partisanship Reconsidered. In R. J. Dalton, & H. D. Klingemann, *The Oxford Handbook of Political Behaviour* (pp. 557–570). Oxford: Oxford University Press.
- Jhaver, S., Ghoshal, S., Bruckman, A., & Gilbert, E. (2018). Online Harassment and Content Moderation: The Case of Blocklists. *ACM Transactions on Computer-Human Interaction*. 25. CSCW.
- Kahan, D. M. (2017). Science Curiosity and Political Information Processing. *Political Psychology*, 38(1), p. 179-199.
- Kelly, C., & Breinlinger, S. (1995). Attitudes, intentions, and behavior: A study of women's participation in collective action. *Journal of Applied Social Psychology, 25*(1), p.1430-1445.
- Kinnally, W., & Brinkerhoff, B. (2013). Improving the drive: a case study for modeling public radio member donations using the theory of planned behavior. *Journal of Radio & Audio Media*, 20(1), p.2-16.
- Knowles, H., & Hamburger, T. (2021, February 9). *Top GOP lawmaker in Michigan falsely claims Capitol riot was 'staged,' dismisses Trump supporters' role*. Retrieved from The Washington Post: https://www.washingtonpost.com/politics/2021/02/09/mike-shirkey-capitol-riot/
- Laloggia, J. (2019). U.S. public has little confidence in social media companies to determine offensive content. Washington DC: PEW Research Centre.
- Levine, J. (2021, January 9). Trump fans ditch Twitter en masse after president's suspension. *New York Post*. https://nypost.com/2021/01/09/trump-fans-leave-twitter-after-presidents-suspension/
- Lin, H., Fan, W., Wallace, L., & Zhang, Z. (2007). An empirical study of web-based knowledge community success. 40th Annual Hawaii International Conference on System Sciences (pp. 1530–1605). New York, NY: IEEE.
- Liu, Y., Yildirim, P., & Zhang, J. (2021). *Social media, content moderation, and technology*. Retrieved from https://arxiv.org/abs/2101.04618
- Marwick, A. E., & Lewis, R. (2017). *Media manipulation and disinformation online*. New York, NY: Data & Society Research Institute.
- Matias, J. N. (2016). The civic labor of online moderators. Internet Politics and Policy Conference. Oxford, UK.
- McClain, C., & Anderson, M. (2021). *Republicans, Democrats at odds over social media companies banning Trump.*Washington DC: PEW Research Centre.

- McClain, C., & Anderson, M. (2021). Republicans, Democrats at odds over social media companies banning Trump. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2021/01/27/republicans-democrats-at-odds-over-social-media-companies-banning-trump/
- Miller, J. M., Saunders, K. L., & Farhart, C. E. (2016). Conspiracy Endorsement as Motivated Reasoning: The Moderating Roles of Political Knowledge and Trust. *American Journal of Political Science*, 60(4), 824-844.
- Pelling, E. L., & White, K. M. (2009). The theory of planned behavior applied to young people's use of social networking Web sites. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 12(6), 755-759.
- Pfaffenberger, B. (1996). "If I Want It, It's OK": Usenet and the (Outer) Limits of Free Speech. *The Information Society*, 12(4), 365-386.
- Reagle, J. (2013). "Free as in sexist?" Free culture and the gender gap. *First Monday*, 18(1). Retrieved from https://firstmonday.org/article/view/4291/3381
- Sanderson, Z., Brown, M. A., Bonneau, R., Nagler, J., & Tucker, J. A. (2021). Twitter flagged Donald Trump's tweets with election misinformation: They continued to spread both on and off the platform. *Harvard Kennedy School Misinformation Review*. https://doi.org/10.37016/mr-2020-77
- Shabad, R. (2021, March 2). FBI Director Christopher Wray repeatedly rebuts claims that antifa activists attacked Capitol. Retrieved from CNBC News: https://www.nbcnews.com/politics/congress/fbi-director-wray-repeatedly-refutes-claims-antifa-activists-attacked-capitol-n1259297
- Sharevski, F., Alsaadi, R., Jachim, P., & Pieroni, E. (2022). Misinformation warnings: Twitter's soft moderation effects on COVID-19 vaccine belief echoes. *Computers & Security*, 114, 102577. https://doi.org/10.1016/j.cose.2021.102577
- Stecula, D. A. (2020). Policy Views and Negative Beliefs About Vaccines in the United States, 2019. *American Journal of Public Health, 110*(10), 1561-1563.
- Tian, Y., & Robinson, J. D. (2017). Predictors of cell phone use in distracted driving: Extending the Theory of Planned Behavior. *Health Communication*, 32(9), 1066-1075.
- Timberg, C., & Harwell, D. (2021). Exiled from social media mainstream, Trump and his followers will find life different at the extreme corners of the Web. *Washington Post*. https://www.washingtonpost.com/technology/2021/01/19/twitter-trump-audience-deplatforming/
- Vogels, E. (2020). Partisans in the U.S. increasingly divided on whether offensive content online is taken seriously enough. Washington DC: PEW Research Centre.
- Vogels, E., Perrin, A., & Anderson, M. (2020). *Most Americans Think Social Media Sites Censor Political Viewpoints*. Washington DC: PEW Research Centre.
- Wagner, C., Liu, L., Schneider, C., Prasarnphanich, P., & Chen, H. (2009). Creating a successful professional virtual community: A sustainable digital ecosystem for idea sharing. *In Digital Ecosystems and Technologies* (pp. 163–167). New York, NY: IEEE.
- Wike, R. (2016). Americans more tolerant of offensive speech than others in the world. Washington, DC: PEW Research Center.

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