

## Political participation in transition: Internet memes as a form of political expression in social media

Michael Johann, University of Augsburg, Department of Media, Knowledge, and Communication, Germany

michael.johann@phil.uni-augsburg.de

### Abstract

Internet memes have become a popular format for expressing individual political opinions in social media. Based on a quantitative online survey of political Internet meme users from fringe web communities and sharing platforms ( $n=482$ ), this study examines the factors related to political expression in Internet memes. The analysis reveals that political Internet meme usage depends on users' political interest and the intensity of social media prosumption. Political Internet meme usage is also positively related to users' motivations for political engagement and internal political efficacy. Moreover, the use of Internet memes for the expression of political opinions is related to users' online and offline political participation. This study represents the first empirical exploration of users who create and share political Internet memes. The results contribute to the body of knowledge on changing and elusive participatory practices in social media and shift the focus from general social media usage to a specific type of content.

### Keywords

Internet memes, political participation, political engagement, social media prosumption, political interest, political efficacy, motives, survey

## 1 Introduction

The US presidential elections in November 2020 mobilized a record number of American voters. In addition to polling places being crowded, the social web was flooded with user-generated Internet memes commenting on one of the most important political events worldwide. Several months earlier, media outlets had already noted that “[m]emes are infiltrating the 2020 presidential election” (Cillizza, 2020). Examples like this show that Internet memes have become a widespread format through which social media users can express individual political opinions.

Overall, political culture is becoming more individualized and has tended to involve more ad hoc forms of expression (Ekström & Shehata, 2018). Among the great variety of possibilities for political expression on social media, political Internet memes (PIMs) have emerged as a popular form of participatory culture (Ross & Rivers, 2017; Shifman, 2014). Internet

meme is an umbrella term for a heterogeneous class of different digital items (e.g., phrases, image macros, GIFs, videos, etc.). These digital items share “(a) [...] common characteristics of content, form, and / or stance, which (b) were created with awareness of each other, and (c) were circulated, imitated, and / or transformed via the Internet by many users” (Shifman, 2014, p. 41). Internet memes are political when they refer to societal interests or conflicts, political actors, representative acts, or political decisions (Johann & Bülow, 2019). Relying on forms of “juxtaposition, bricolage, pastiche, parody, and remix” (Huntington, 2019, p. 195), Internet memes are a specific form of appropriative and intertextual practices in computer-mediated communication (Shifman, 2014).

Generally, the interactive character of the social web has brought about new opportunities for civic participation. Access to political information has become much easier than before (Bode, 2016; Hoffman, Jones, & Young, 2013), as information that



used to be provided solely by the mass media can now be easily accessed by everyone on the Internet (Xenos & Moy, 2007). Furthermore, social media platforms allow users to not only consume political information passively but to actively produce it. Consequently, political information can be shared with an unlimited audience. Research indicates that social media represents an increasingly important pillar of citizens' political participation, both online and offline (Knoll, Matthes, & Heiss, 2020). Moreover, the democratic potential of the Internet is reflected in globally emerging political movements (Ekström & Shehata, 2018). Such grassroots movements are rapidly gaining in popularity due to the rapid dissemination of information on social media, which has the potential to accelerate political change (Howard et al., 2011).

The influence of social media on politics and society is a widely studied phenomenon (Boulianne, 2015). However, new technical possibilities and the emergence of new communicative dynamics require further research. Social media platforms are increasingly dominated by visual, user-generated content, such as videos, GIFs, photos, or Internet memes (Highfield & Leaver, 2016). As technology advances and new forms of political expression emerge on social media, opportunities for political participation change as well.

Although Internet memes, rather than simply being humorous nonsense, are a creative form of political participation (Ross & Rivers, 2019), empirical studies of Internet meme usage and its relations to political participation are rare. More specifically, the literature has largely neglected the Internet users' perspectives on Internet memes (Huntington, 2019).

This study aims to close this research gap by empirically examining Internet memes in the context of changing political participation practices among increasingly networked social media users. Based on a review of related research, I conducted a quantitative online survey of PIM users. This study contributes to a deeper understanding of ongoing participation processes

in social media. By investigating factors related to PIM usage as a form of political expression in social media, this study provides a holistic and empirical perspective on modern political expression practices. The study further advances political participation research by shifting the focus toward specific types of content on social media. Consequently, the study extends the existing body of research on digital and political communication.

## **2 Explaining political participation through political expression via Internet memes**

This section sheds light on the interrelatedness of politics and Internet memes and provides evidence that PIMs function as a means of political expression that fosters digitally networked participation practices. Based on different theoretical foundations and models of political participation as well as a literature review, I present a set of hypotheses and pose a research question.

### **2.1 Political Internet memes and memeified politics**

Political opinions are increasingly expressed, disseminated, and negotiated through social media (Gil de Zúñiga, Molyneux, & Zheng, 2014; Literat & Kligler-Vilenchik, 2019). Among the great variety of formats and content on social media, PIMs have emerged as a relatively new form of political expression. Although, at the beginning of their evolution, Internet memes were characterized by humor, in recent years, many scholars have pointed out that memes have become increasingly politicized (e.g., Johann & Bülow, 2019; Shifman, 2014). In fact, a growing body of research on memeified politics has emphasized that politics and the use of Internet memes are interconnected (Shifman, 2014), and PIMs have been investigated in the context of major political events, such as elections (e.g., Ross & Rivers, 2017), geopolitical topics (e.g., Dynel, 2021), and political activism (e.g., Milner, 2013). Moreover, many scholars have underscored the

importance of Internet memes for individual identities and social critique (e.g., Brantner, Lobinger, & Stehling, 2020).

As Internet memes have increasingly come to rely on sharable captioned images, the so-called image macros have emerged as the best-known meme genre. Image macros usually consist of a static background image and a verbal message or caption. Such images, which typically originate from pop culture, everyday life, or politics, are typically de- or re-contextualized using verbal structures. Shifman (2014) identified three basic functions of PIMs in general and of political image macros in particular: persuasion or political advocacy (the top-down perspective), grassroots actions (the bottom-up perspective), and different modes of individual expression and public discussion (the user perspective). Previous studies have mainly been single case studies that have investigated PIMs using content analysis or (multimodal) discourse analysis approaches from the top-down (e.g., Ross & Rivers, 2017) and bottom-up (e.g., Williams, 2020) perspectives. Consequently, users' roles in creating and sharing Internet meme adaptations have been largely neglected. Among the few studies conducted from the user perspective (e.g., Huntington, 2019; Zhang & Pinto, 2021), PIMs' significance for participatory practices and individual expressions of political opinions has not been holistically researched.

## 2.2 Political expression via Internet memes

Internet memes are closely entangled with politics and offer “an opportunity for political expression, engagement and participation” (Ross & Rivers, 2017, p. 1). Generally, democratic systems require their citizens to actively participate and take political stances (Verba, Schlozman, & Brady, 1995). Political participation encompasses all forms of political engagement in which the members of a society express their opinions and/or communicate them to political decision-makers (Vissers & Stolle, 2014). In participatory cultures, citizens can express their opinions and acquire

shared skills of media production and dissemination, form communities, and establish repertoires of common meanings and collective practices to achieve political goals (Jenkins et al., 2017). In this sense, PIMs can be seen as a collective practice of political expression performed by Internet users who engage in de- und re-contextualization of political content.

Scholars have argued that traditional forms of political participation (e.g., signing offline petitions, contacting officials by letter, or participating in elections) are losing their significance, especially in Western cultures (Best & Krueger, 2005). However, this development is not rooted in a general decline in political interest; rather, it is the result of changing information sources and the emergence of new practices for participating in political discourses (Wolfsfeld, Yarchi, & Samuel-Azran, 2016). Especially digital communication technologies have influenced the ways in which increasingly networked citizens engage in politics. Consequently, new forms of online political participation (e.g., signing online petitions, contacting officials on social media platforms, or participating in online political discussions) have led to a kind of “lifestyle” politics, particularly for young citizens engaged in social media use (Vissers & Stolle, 2014).

Therefore, it is not surprising that PIMs have often been associated with a certain degree of democratic potential. Scholars have argued that PIMs serve as a “legitimate avenue to political participation” (Ross & Rivers, 2019, p. 976), which reflects the normative ideal of the memosphere as a “polyvocal public discourse” (Milner, 2013, p. 2357). Moreover, scholars have repeatedly claimed that political communication on social media platforms in general (e.g., Kim & Chen, 2016; Valenzuela, Arriagada, & Scherman, 2012), especially when Internet memes are used (e.g., Ross & Rivers, 2017; Shifman, 2014), has a significant impact on participatory democracy. At the same time, due to the lower participation threshold in online contexts, the boundaries between political and non-political actions have become blurred, and scholars have questioned the

connection between social media and political participation (e.g., Boulianne, 2015, 2019; Ekström & Shehata, 2018; Jenkins et al., 2017). Drawing on a meta-analysis of 133 studies on the effects of social media use on participation, Boulianne (2019) claimed that the rise of social media has enriched the way in which users can express, disseminate, and negotiate political opinions. Although neither social media nor Internet memes have managed to completely revolutionize political discourse, it can be assumed that PIMs serve as an additional outlet for expressing political opinions and contributing to online political discussions. However, it is important to note that “political expression is conceptually distinct from political participation in the way that political talk is distinct from political action” (Gil de Zúñiga et al., 2014, p. 614). Therefore, this article argues that political expression via PIMs is a conceptual precondition for political participation or is at least closely related to participatory activities. In general, the extent to which expressing political opinions via PIMs is linked to participatory online and offline practices has not been sufficiently examined. This study aims to fill this research gap.

### 2.3 Factors related to political Internet meme usage

Participatory practices, such as the use of Internet memes to express political opinions, are facilitated by increasingly “porous boundaries” (Ekström & Shehata, 2018, p. 743) between non-political and political activities. Therefore, participation research has continuously investigated, from various theoretical and empirical perspectives, the factors driving political participation. One factor that has been repeatedly linked to political expression and participation is political interest. In their *mediation hypothesis*, Blais and Labbé St-Vincent (2011) proposed that personality indirectly predicts participatory outcomes. The empirical validation of their model confirmed the significance of personality traits for political interest directly related to participation. Additionally, in their widely adopted *resource model of*

*political participation*, Brady, Verba, and Schlozman (1995) showed that political interest serves as both an antecedent and a consequence of political activity.

Politically interested people not only consume political content but also integrate into their media repertoires other sources than traditional mass media (Boulianne, 2011; Wolfsfeld et al., 2016). For example, the *social media political participation model* (Knoll et al., 2020) emphasized the significance of intentional and incidental exposure to political content on social media platforms on users’ reception and behavioral processes. As PIMs are shared on almost all social media platforms, scholars have assumed that social media usage is associated with the intentional and incidental consumption of Internet memes (Huntington, 2019). Research has shown that particularly young people who consume political information on social media platforms often become producers of political content (Penney, 2019). Consequently, production and consumption routines are increasingly intertwined, which is reflected in the concept of the *prosumer* (Toffler, 1980) or, more recently, in the concept of social media *prosumption* (Yamamoto, Nah, & Bae, 2020). With regard to the convergence production and consumption practices, people tend to spend more time and cognitive skills on issues related to their interests (Bode, 2016). Users’ social media prosumption and political interest are expected to be crucial factors for individual political expression in PIMs (referred to as PIM usage). The first two hypotheses are as follows:

H1: Social media prosumption is positively related to PIM usage.

H2: Political interest is positively related to PIM usage.

Social media usage is closely linked to specific motives and goals (Park, Kee, & Valenzuela, 2009). Accordingly, based on the propositions of the *social media political participation model* (Knoll et al., 2020), users’ motivational states are key during the early stages of participation. In their

meta-analytic review, Skoric, Zhu, Goh and Pang (2016, p. 1826) found that “most studies suggest a positive relationship between informational, relational, political, and expressive uses of social media and political participation,” which strengthens the assumption that motivated use of social media is a driving force in participatory outcomes (Knoll et al., 2020). Therefore, the creation and sharing of PIMs on social media platforms can be seen as a reaction to specific needs and motivations, which can be explained by the uses and gratification approach (Lu & Fan, 2018). Previous studies have identified the following three major motivations for political participation and for sharing political information on social media: political engagement, relationship maintenance, and self-promotion (Lane et al., 2019). While relationship maintenance is a core motivation (Bode, 2016), the search for like-minded people with whom one can exchange political opinions plays an increasingly important role for social media use (Anderson, Toor, Rainie, & Smith, 2018). Moreover, young people are particularly prone to using social media for self-promotion (Penney, 2019). These assumptions regarding social media usage and users’ motives led to the following hypothesis:

H3: The motivation for (a) political engagement, (b) relationship maintenance, and (c) self-promotion on social media is positively related to PIM usage.

Internet memes are amalgamations of individual and collective identities and have the potential to incite collective action and participation (Bennett & Segerberg, 2012; Shifman, 2014). The proposed and validated *social identity model of collective action* by van Zomeren, Postmes and Spears (2008) indicated that perceived political efficacy is a key factor in the political participation of collectives driven by perceptions of injustice. Moreover, the *mediation hypothesis* (Blais & Labbé St-Vincent, 2011) has proven political efficacy to be the main predictor of participatory outcomes. Political efficacy can be understood as an indi-

vidual’s perceived ability to participate in and influence a political system (Yeich & Levine, 1994). Political efficacy has three relevant sub-dimensions: internal efficacy, external efficacy, and collective efficacy.

Internal efficacy concerns “the perceived capacity to influence the political system” (Halpern, Valenzuela, & Katz, 2017, p. 322). Citizens who use both online and traditional media to search for and exchange information feel more capable of influencing the political system, which is reflected in higher political participation (Halpern et al., 2017; Wolfsfeld et al., 2016).

External efficacy refers to “citizens’ perceptions of the responsiveness of government to citizens’ demands” (Gil de Zúñiga, Diehl, & Ardévol-Abreu, 2017, p. 576). In online contexts, external efficacy concerns the perceived relationship between users and the government as well as users’ perceptions that the government is responsive to the users’ needs in its political decisions. According to the *social identity model of collective action* (van Zomeren et al., 2008), one may expect low external efficacy to lead to higher levels of participation to reduce perceived injustice. However, for external efficacy’s influence to manifest itself fully, political outcomes need to match individual expectations (Iyengar, 1980). Similarly, Knoll et al. (2020) pointed out that users usually appraise the relevance of online content before cognitively processing such content.

Collective efficacy refers to the perceived effectiveness of a group with which an individual identifies. Collective efficacy can be defined as a “group’s shared belief in its conjoint capabilities to organize and execute the courses of action required for producing given levels of attainments” (Bandura, 1997, p. 477). In this context, social media can be seen as a space for collective activism in which perceived collective efficacy shapes individual and collective political participation (Bennett & Segerberg, 2012).

Various studies have shown that internal efficacy and collective efficacy influence political participation on social media (Halpern et al., 2017), while the impact

of external efficacy has not been empirically clarified (Gil de Zúñiga et al., 2017). Therefore, the following hypotheses and research question are proposed:

- H4a: Perceived internal political efficacy is positively related to PIM usage.  
 H4b: Perceived collective political efficacy is positively related to PIM usage.  
 RQ1: How is perceived external political efficacy related to PIM usage?

The popularity of Internet memes shows that citizens transfer everyday life communication routines from apolitical to political contexts. Expressing and sharing thoughts and opinions on politics via Internet memes may, therefore, be an essential factor in online and offline political participation (Ekström & Shehata, 2018; Zhu, Chan, & Chou, 2019). Again, it must be emphasized that political expression and political participation are distinct concepts (Gil de Zúñiga et al., 2014). In this context, Kushin and Yamamoto (2010) found that college students' online expression was significantly related to situational political involvement. According to Kim and Chen (2016) as well as Gil de Zúñiga et al. (2014), the use of social media for sharing political content is positively related to users' online political participation. There is also evidence that sharing political information on social media is linked to offline political participation (Gil de Zúñiga et al., 2014; Lane et al., 2019). Empirical evidence on the online political expression of young Internet users also suggests that creative use of social media, such as creating and sharing Internet memes, is positively related to online and offline political participation (Zhu et al., 2019). Consequently, the following hypotheses were derived:

- H5: PIM usage is positively related to online political participation.  
 H6: PIM usage is positively related to offline political participation.

### 3 Method

To test the hypotheses and to answer the research question, I conducted a quantitative online survey from July 14 to July 26, 2020. The online survey was created using the SoSci Survey software (Leiner, 2019) and was distributed among Internet users who create and share PIMs on social media platforms with frequent Internet meme appearances. As Internet memes often originate from fringe web communities (Zannettou et al., 2018), political sub-forums as well as sub-communities on *Imgflip* (e.g., <https://imgflip.com/m/politics>), *Imgur* (e.g., <https://imgur.com/t/politics>), and *Reddit* (e.g., <https://www.reddit.com/r/PoliticalMemes>) were included in the sampling process. In addition, the most important sharing platforms *Facebook*, *Twitter*, and *Instagram* were included as well. Users who created or shared PIMs on these platforms during the selected period were invited to participate in the survey by directly contacting them or by posting the survey link in the comment sections. In sum, 1679 users clicked on the survey link, and 482 users completed the survey, which represents a response rate of 29 percent.

#### 3.1 Sample

In total, 402 male (83.40%) and 66 female (13.69%) meme users completed the survey. Twelve users (2.49%) identified themselves as non-binary. Two respondents (0.41%) did not provide gender information. The respondents' average age was  $M=22.75$  years ( $SD=9.96$ ), ranging from 12 to 75 years. The respondents were mainly located in North and Central America ( $n=300$ ; 62.24%) and Europe ( $n=118$ ; 24.48%). Fewer users came from Asia ( $n=19$ ; 3.94%), South America ( $n=12$ ; 2.49%), Australia ( $n=7$ ; 1.45%), and other regions ( $n=9$ ; 1.87%). Seventeen persons (3.53%) preferred not to reveal their locations. An 11-point scale was used to measure the meme users' left-right political orientation (Kroh, 2007). In total, the sample exhibited a middle-left political orientation ( $M=4.52$ ;  $SD=3.11$ ).

### 3.2 Measures

The questionnaire and its operationalization were based on previous research in the context of online and offline political participation, with a special focus on PIM usage.

#### 3.2.1 Political Internet meme usage

An adapted version of the social media political expression scale (Gil de Zúñiga et al., 2014) was used to measure PIM usage. The respondents were asked to rate on a five-point scale (“1 – never” to “5 – frequently”) how often they were “posting memes referring to a political advocate or politician,” “posting or sharing thoughts about politics in memes,” “forwarding someone else’s political memes to other people,” “posting or sharing images about politics in memes,” and “posting memes with personal experiences related to politics or campaigning” during a regular week ( $\alpha = .86$ ).

#### 3.2.2 Social media prosumption

The intensity of social media prosumption was measured using the social media prosumption scale (Yamamoto et al., 2020). As Internet users can both produce and consume various content on social media, the respondents were asked to rate on a seven-point scale (“1 – never” to “7 – frequently”) how often they were “commenting or rating content on social networking sites and microblogging services,” (CR) “browsing content on social networking sites and microblogging services,” (BR) “sharing content with others on social networking sites and microblogging services,” (SH) and “contributing original content to social networking sites and microblogging services” (CC). Based on these routines, an index for social media prosumption was calculated ( $\sqrt{BR \times CC} + \sqrt{BR \times CR} + \sqrt{BR \times SH}$ ). The formula followed the operationalization proposed by Yamamoto et al. (2020) and considered different prosumption terms with browsing as a constant routine. Multiplying the routines and square rooting the terms ensured that browsing as a low-threshold consumption routine did not increase social media prosumption unless browsing was combined with a

production routine. The final index ranged between a minimum value of 3 and a maximum value of 21 ( $\alpha = .76$ ).

#### 3.2.3 Political interest

Political interest was measured using the scale proposed by Ekström and Shehata (2018). The questions “How interested are you in politics?” and “How interested are you in what is happening in society?” had to be rated on a five-point scale (“1 – not at all interested” to “5 – very interested”). The Spearman-Brown estimate was used to assess the scale’s reliability, as the estimate is less biased when calculating the reliability of two-item scales than Cronbach’s  $\alpha$  (Eisinga, Grotenhuis, & Pelzer, 2013). With a value of .75, the political interest measure was reliable.

#### 3.2.4 Social media motives

The motivations for using social media were operationalized based on Lane et al. (2019). Regarding their motivation for political engagement, the respondents were asked to rate on a six-point scale (“1 – strongly disagree” to “6 – strongly agree”) whether they were using social media to “exchange information on public affairs and politics,” “to discuss news and public affairs,” “to increase awareness about important issues,” and “to advocate for a social cause” ( $\alpha = .90$ ). The motivation for relationship maintenance was similarly measured using the items “to stay in touch with others” and “to maintain relationships with others in my network” (Spearman-Brown = .83). Finally, the motivation for self-promotion was assessed using the items “to impress others with my personal feats or hidden talent” and “to keep people updated on my public accomplishments” (Spearman-Brown = .72).

#### 3.2.5 Political efficacy

Political efficacy was conceptualized using three sub-dimensions: internal efficacy, collective efficacy, and external efficacy (Halpern et al., 2017). The respondents were asked to rate on a five-point scale (“1 – strongly disagree” to “5 – strongly agree”) the following statements: “I consider myself well qualified to participate

in politics,” “I feel that I have a pretty good understanding of the important political issues facing our country,” “I feel I could do as good a job in public office as most other people,” and “I think that I am better informed about politics and government than most people.” These items measured internal efficacy ( $\alpha = .75$ ). Collective efficacy was measured by the items “The collective action of people has a huge influence on public affairs,” “The collective action of people can improve society,” “Politicians would respond to the needs of citizens if enough people demand change,” “Organized groups of citizens can have enough impact on the political policies of this country,” and “If enough citizens got organized and demanded change, politicians would take steps to end their problems” ( $\alpha = .78$ ). External efficacy was measured using the items “I think public officials care much what people like me think” and “Generally speaking, most government officials try to serve the interest of citizens like me” (Spearman-Brown = .65). Although the scale exhibited rather low reliability, it was decided to include it in further analysis, as lower scores are not uncommon for two-item measures. Some scholars have even pointed out that psychological constructs can be measured using items whose reliability scores are below .70 (Kline, 1999). Nevertheless, the low reliability value represented a methodological limitation of the study.

### 3.2.6 Political participation

The scales for online and offline political participation were derived from Wolfsfeld et al. (2016). Using a five-point scale (“1 – never” to “5 – frequently”), the respondents had the possibility of rating the frequency of their offline activities using the following items: “Participating in a political meeting,” “Signing a petition (not online),” “Working with others in the community to resolve problems,” “Involvement in a political campaign,” and “Participating in a demonstration” ( $\alpha = .90$ ). Similarly, they evaluated the following online activities: “Sharing political information posted on social networks,” “Expressing political opinions online,” “Participating in an on-

line political discussion,” “Signing an online petition,” “Posting political information in social networks,” “Responding to political information posted on social networks,” “Participating in an online political discussion with friends,” “Adding links to political posting,” and “Liking’ political information posted on social networks” ( $\alpha = .85$ ).

## 4 Results

The data analysis was conducted using block-wise regression analysis for H1 to H4b and RQ1. Two additional block-wise regression analyses were used to test H5 and H6. All models included dummy-coded gender variables (female, other), age, education, income, and political orientation (left / right) as control variables. The regression models were calculated using bootstrapping based on 1000 bootstrap samples. As the preconditions of variable homoscedasticity and the normal distribution of the error values were not fulfilled for some items, the bootstrapping method ensured a more robust estimation of the regression models (Field, 2018).

### 4.1 Descriptive statistics

Overall, the respondents used PIMs to post or share images about politics ( $M = 3.84$ ;  $SD = 1.32$ ) and to post or share thoughts about politics ( $M = 3.82$ ;  $SD = 1.29$ ), forwarded someone else’s PIMs to other people ( $M = 3.64$ ;  $SD = 1.40$ ), and posted memes referring to a political advocate or a politician ( $M = 3.26$ ;  $SD = 1.42$ ). Posting memes about personal experiences related to politics or campaigning was less common ( $M = 2.71$ ;  $SD = 1.42$ ).

Table 1 provides the descriptive statistics for the main variables. The respondents reported rather high levels of social media prosumption and political interest. Regarding the motives, relationship maintenance and political engagement were the most pronounced motives, while self-promotion played a minor role. Moreover, the respondents indicated increased levels of internal and collective political efficacy, while external efficacy was rated



**Table 1: Descriptive statistics for the main variables**

Variable	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
Political Internet meme usage	3.45	1.10	-0.52	-0.61
Social media prosumption	16.21	3.94	-1.11	1.13
Political interest	4.59	0.66	-2.02	4.63
Political engagement	4.04	1.49	-0.43	-0.85
Relationship maintenance	4.10	1.54	-0.52	-0.82
Self-promotion	2.13	1.20	1.05	0.45
Internal political efficacy	3.88	0.75	-0.57	0.10
Collective political efficacy	3.84	0.76	-0.57	0.14
External political efficacy	2.06	0.83	0.53	-0.28
Online political participation	3.70	1.01	-0.67	-0.45
Offline political participation	2.27	1.04	0.62	-0.49

**Table 2: Block-wise regression analysis explaining PIM usage**

Variables	<i>b</i>	95% CI	$\beta$	<i>p</i>
<b>Block 1: Control variables</b>				
Gender (female)	0.06	[-.19, .31]	0.02	.643
Gender (other)	0.20	[-.22, .67]	0.03	.356
Age	-0.004	[-.02, .01]	-0.04	.422
Education	0.05	[-.02, .01]	0.08	.157
Income	-0.004	[-.04, .03]	-0.01	.808
Political orientation (left/ right)	0.04	[.01, .07]	0.12	.012
<b>Block 2: Prosumption</b>				
Social media prosumption	0.08	[.05, .11]	0.29	<.001
<b>Block 3: Political interest</b>				
Political interest	0.20	[.03, .37]	0.12	.020
<b>Block 4: Motives</b>				
Political engagement	0.26	[.17, .34]	0.37	<.001
Relationship maintenance	0.01	[-.05, .08]	0.02	.656
Self-promotion	0.05	[-.02, .13]	0.06	.156
<b>Block 5: Perceived efficacy</b>				
Internal political efficacy	0.13	[.01, .26]	0.10	.040
Collective political efficacy	0.06	[-.08, .19]	0.04	.419
External political efficacy	-0.17	[-.28, -.07]	-0.14	<.001

Note. Adjusted  $R^2 = .50$ ,  $n = 312$  after the list-wise deletion of cases with missing values, CI = Confidence Interval for *b*, based on 1000 bootstrap samples.

lower. Regarding political participation, the respondents mainly participated online. Offline political participation was less pronounced, which may be explained by the respondents being rather young (median age was 20 years). Most respondents might not have had the possibility to engage in offline politics or might not have reached the legal age for signing petitions. The data indicated that offline political participation increased in importance

as one aged ( $F(1, 472) = 25.12$ ,  $p < .001$ ,  $R^2 = .05$ ;  $B = .02$ , 95% CI [.01, .04]).

**4.2 Hypotheses**

The results of the block-wise regression analysis explaining PIM usage are shown in Table 2. H1 stated that the intensity of social media prosumption is positively related to PIM usage. The regression analysis supported this hypothesis. Social media prosumption was related to PIM usage.

The more users are active on social media, the more likely they are to create and share PIMs.

H2 stated that political interest is related to PIM usage. The data supported this hypothesis. Higher political interest is linked to increased PIM usage. Overall, political interest is an important factor in explaining PIM usage.

H3 postulated that PIM usage depends on specific motivations. It was expected that political engagement (H3a), relationship management (H3b), and self-promotion (H3c) would be related to creating and sharing PIMs on social media. The analysis supported only H3a. While the motivation to engage in politics is related to the intensity with which users create and share PIMs, relationship management and self-promotion do not seem to be linked to individual PIM usage. In ad-

dition to political interest, the motive for political engagement is a crucial factor in explaining PIM usage.

It was further expected that users' perceived political efficacy would be related to PIM usage. H4a stated that perceived internal efficacy is positively related to PIM usage. H4b postulated positive relations between perceived collective efficacy and PIM usage. The results of the block-wise multiple regression analysis supported H4a. Internal political efficacy explains the intensity of PIM usage. By contrast, H4b was not supported. The expression of political opinions in PIMs is not significantly explained by perceived collective efficacy. RQ1 inquired about the relationship between perceived external efficacy and PIM usage. The regression analysis results indicated a negative relationship between these two variables. This could

**Table 3: Block-wise regression analysis explaining online political participation**

Variables	<i>b</i>	95% CI	$\beta$	<i>p</i>
Block 1: Control variables				
Gender (female)	0.06	[-.13, .25]	0.02	.517
Gender (other)	-0.03	[-.45, .31]	-0.01	.883
Age	0.01	[.00, .02]	0.08	.051
Education	-0.10	[-.15, -.05]	-0.19	<.001
Income	0.02	[-.01, .05]	0.06	.205
Political orientation (left / right)	-0.07	[-.09, -.05]	-0.24	<.001
Block 2: PIM usage				
PIM usage	0.64	[.56, .71]	0.69	<.001

*Note.* Adjusted  $R^2 = .59$ ,  $n = 312$  after the list-wise deletion of cases with missing values, CI = Confidence Interval for *b*, based on 1000 bootstrap samples.

**Table 4: Block-wise regression analysis explaining offline political participation**

Variables	<i>b</i>	95% CI	$\beta$	<i>p</i>
Block 1: Control variables				
Gender (female)	0.19	[-.10, .47]	0.06	.205
Gender (other)	0.13	[-.43, .77]	0.02	.643
Age	0.003	[-.01, .02]	0.03	.621
Education	0.05	[-.02, .12]	0.08	.158
Income	0.04	[-.01, .09]	0.11	.110
Political orientation (left / right)	-0.09	[-.13, -.05]	-0.26	<.001
Block 2: PIM usage				
PIM usage	0.44	[.34, .54]	0.43	<.001

*Note.* Adjusted  $R^2 = .35$ ,  $n = 312$  after the list-wise deletion of cases with missing values, CI = Confidence Interval for *b*, based on 1000 bootstrap samples.

mean that PIMs are more likely to be created and shared by users who believe that politicians and the government do not sufficiently respond to peoples' demands.

The control variables indicated that users' political orientation, examined using an 11-point scale ("1 – left" to "11 – right"), had a small but significant effect on PIM usage. Users who identify themselves as being on the right side of the political spectrum tend to express their political opinions via Internet memes more often.

H5 suggested that the intensity of creating and sharing PIMs on social media would be positively related to the users' online political participation. The data supported this hypothesis (see Table 3). PIM usage is positively linked to the intensity of participatory online practices. Based on the control variables, users' education and political orientation play a significant role in political expression via Internet memes. In this sense, online political participation is slightly related to lower levels of education and left-leaning political views.

Finally, H6 proposed that PIM usage would be positively related to offline political participation. The data analysis supported this assumption (see Table 4). The intensity of offline political participation can be explained by the expression of political opinions via Internet memes. As with online political participation, participating in offline politics is also driven by left-leaning political views.

## 5 Discussion and conclusion

The purpose of this study was to examine Internet memes as a form of political expression in social media. By empirically investigating users who create and share PIMs on social media platforms, the study was aimed at extending the existing body of research on PIMs and political participation on social media. I suggested that PIMs are a user-generated form for expressing individual political opinions resulting from the participatory nature of social media (Boulianne, 2019). Moreover, by focusing on PIMs as a particular form

of expression, this study contributes to the shift toward analyzing distinct types of content in social media.

On the one hand, empirical evidence has been lacking on the relationship between political expression via PIMs and users' offline and online political participation. Although several studies have investigated the link between social media and political participation (for an overview, see Boulianne, 2015, 2019), these studies have largely neglected possible differences in terms of heterogeneous communities, content, formats, and platforms on social media. Moreover, studies have shown that social media can function as a political mobilizer (e.g., Haciyakupoglu & Zhang, 2015) and have highlighted social media's potential for users' online and offline political participation (e.g., Ekström & Shehata, 2018; Gil de Zúñiga et al., 2014; Lane et al., 2019; Zhu et al., 2019). This study supports the assumption that online political participation and the expression of political opinions via Internet memes are, indeed, intertwined (Chan, Chen, & Lee, 2017). As Internet memes are particularly effective in enabling young citizens to express themselves collectively (Literat & Kligler-Vilenchik, 2019), PIMs may function as an effective driver of youth participation. As the respondents in this study were rather young, it can be concluded that PIMs have participatory potential for users who are not yet allowed to vote or to sign petitions. Following Zhu et al. (2019), the creative use of social media, as reflected in the appropriative practice of creating and sharing Internet memes, can bridge the gap between young citizens' (lack of) political efficacy and everyday politics. From a theoretical and methodological perspective, concepts such as creative participation (Theocharis & de Moor, 2021) can help researchers grasp the elusive and constantly developing nature of political participation.

On the other hand, the investigation of political expression via PIMs through the lens of the *resource model of political participation* (Brady et al., 1995), the *social media political participation model* (Knoll et al., 2020), and the *social identity*

*model of collective action* (van Zomeren et al., 2008) revealed that political interest and social media prosumption are crucial factors related to creating and sharing PIMs on social media. This finding not only supports the results of previous studies on social media usage in general (e.g., Wolfsfeld et al., 2016) but also highlights the potential of meme prosumption for raising users' awareness of political topics or vice versa, as political interest could be a precondition for PIM usage. In this vein, Weeks, Ardèvol-Abreu and Gil de Zúñiga (2017) found that prosumers are more likely to encourage other users to participate politically. Therefore, it is unsurprising that political engagement is the main motivation for creating and sharing PIMs on social media. By contrast, the relation of PIM usage to self-promotion and relationship maintenance could not be confirmed. Consequently, this study contributes to the empirical validation of the *social media political participation model* (Knoll et al., 2020) by providing evidence that political engagement may be a main driving force for PIM usage and lead to participatory outcomes. Nevertheless, future research should delve deeper into PIM users' specific motivational states. For instance, qualitative interviews with PIM users could provide insights into other PIM uses and gratifications, such as entertainment, linked to PIM production and consumption routines.

The analysis of perceived political efficacy confirmed the assumptions of the *mediation hypothesis* (Blais & Labbé St-Vincent, 2011) and the *social identity model of collective action* (van Zomeren et al., 2008) as well as previous research results (Halpern et al., 2017). PIM usage has been proven to be related to users' perceptions of internal political efficacy. However, the causal relationship may be mutual: While creating and sharing PIMs may strengthen users' feelings of political competence, internal efficacy itself could be a driver of creative ways of expressing political opinions on social media. By contrast, by indicating a negative relationship between external efficacy and PIM usage, this study contributes to efficacy research,

which has lacked a clear understanding of the significance of external efficacy for participatory practices (Gil de Zúñiga et al., 2017), suggesting that lower levels of perceived external efficacy may lead to alternative modes of expressing political opinions, such as creating and sharing PIMs. For instance, in settings in which external efficacy may be low due to censorship, lack of freedom of speech, or fear of isolation, PIMs may function as important outlets for political opinions. An open comment by an anonymous respondent at the end of the questionnaire supported these assumptions: "As a queer person in the US, I do not feel safe. I feel like my opinions are not listened to, and I don't feel like I have a right to exist. So, memes are how I express my feelings and thoughts in a more digestible way."

Based on these findings, PIMs' mobilization potential is clear, a finding that has been previously researched in the context of protest movements, such as *Occupy Wall Street* (Milner, 2013; Shifman, 2014), or campaigns against racism (Williams, 2020), sexism (Brantner et al., 2020), and climate change (Ross & Rivers, 2019), as well as far-right movements (Peters & Allan, 2022). Concepts such as connective action (Bennett & Segerberg, 2012), individualized collective action (Micheletti, 2003), or social norms (Uski & Lampinen, 2016) can help future research shed more light on the question of how PIMs mobilize heterogeneous users. In addition, from a methodological perspective, network-analytical approaches can help to better understand PIMs' contagious effects by considering both meme-related and user-related aspects of meme diffusion.

This study had four major limitations that were mainly rooted in its research design. First, the sample was not representative of the whole memesphere. Although the sampling process included fringe web communities and sharing platforms, the study allowed drawing conclusions only about the selected platforms. Second, the sample consisted of self-selected respondents who had actively decided to participate, which further undermines the representativeness of the sample. Third, the

cross-sectional character of this survey did not allow for statistical determinations of effect directions, which is an overall limitation in research on social media usage and political participation. The discussed directions were based on previous research findings and deductive reasoning. Therefore, the validity of the proposed effects should be examined by applying longitudinal designs in future research efforts. Fourth, the sample encompassed participants from various countries and cultural backgrounds, which is likely to affect participatory opportunities and boundaries. Although this study did not explicitly look for cross-national differences, future research should delve deeper into the question of how socio-political factors shape PIM usage.

Despite these limitations, this study is one of the first empirical explorations of users who create and share PIMs on social media that is not based on a particular meme case study. Moreover, the study focused on a single content format rather than examining social media use in general. PIMs were discussed as a form of political expression on social media. In sum, the study showed that PIMs contain expressive power that can impact online and offline participatory practices.

**Conflict of interests**

The author declares no conflict of interest.

**References**

Anderson, M., Toor, S., Rainie, L., & Smith, A. (2018, July 11). Activism in the social media age. *Pew Research Center*. Retrieved from <https://www.pewresearch.org/internet/2018/07/11/activism-in-the-social-media-age/>

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.

Bennett, W. L., & Segerberg, A. (2012). *The logic of connective action: Digital media and the personalization of contentious politics*. Cambridge, MA: Cambridge Uni-

versity Press. <https://doi.org/10.1017/CBO9781139198752>

Best, S. J., & Krueger, B. S. (2005). Analyzing the representativeness of Internet political participation. *Political Behavior*, 27(2), 183–216. <https://doi.org/10.1007/s11109-005-3242-y>

Blais, A., & Labbé St-Vincent, S. (2011). Personality traits, political attitudes and the propensity to vote. *European Journal of Political Research*, 50(3), 395–417. <https://doi.org/10.1111/j.1475-6765.2010.01935.x>

Bode, L. (2016). Political news in the news feed: Learning politics from social media. *Mass Communication and Society*, 19(1), 24–48. <https://doi.org/10.1080/15205436.2015.1045149>

Boulianne, S. (2011). Stimulating or reinforcing political interest: Using panel data to examine the use of news media and political interest. *Political Communication*, 28(2), 147–162. <https://doi.org/10.1080/10584609.2010.540305>

Boulianne, S. (2015). Social media use and participation: A meta-analysis of current research. *Information, Communication & Society*, 18(5), 524–538. <https://doi.org/10.1080/1369118X.2015.1008542>

Boulianne, S. (2019). Revolution in the making? Social media effects across the globe. *Information, Communication & Society*, 22(1), 39–54. <https://doi.org/10.1080/1369118x.2017.1353641>

Brady, H. E., Verba, S., & Schlozman, K. L. (1995). Beyond SES: A resource model of political participation. *The American Political Science Review*, 89(2), 271–294. <https://doi.org/10.2307/2082425>

Brantner, C., Lobinger, K., & Stehling, M. (2020). Memes against sexism? A multi-method analysis of the feminist protest hashtag #distractinglysexy and its resonance in the mainstream news media. *Convergence: The International Journal of Research into New Media Technologies*, 26(3), 674–696. <https://doi.org/10.1177/1354856519827804>

Chan, M., Chen, H.-T., & Lee, F. (2017). Examining the roles of mobile and social media in political participation: A cross-national analysis of three Asian societies using a communication mediation approach. *New Media & So-*

- ciety, 19(12), 2003–2021. <https://doi.org/10.1177/1461444816653190>
- Cillizza, C. (2021, February 27). Memes are infiltrating the 2020 presidential election. *CNN*. Retrieved from <https://edition.cnn.com>
- Dynel, M. (2021). COVID-19 memes going viral: On the multiple multimodal voices behind face masks. *Discourse & Society, 32*(2), 175–195. <https://doi.org/10.1177/0957926520970385>
- Eisinga, R., Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International Journal of Public Health, 58*(4), 637–642. <https://doi.org/10.1007/s00038-012-0416-3>
- Ekström, M., & Shehata, A. (2018). Social media, porous boundaries, and the development of online political engagement among young citizens. *New Media & Society, 20*(2), 740–759. <https://doi.org/10.1177/1461444816670325>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics*. London, UK: SAGE.
- Gallego, A., & Oberski, D. (2011). Personality and political participation: The mediation hypothesis. *Political Behavior, 34*(3), 425–451. <https://doi.org/10.1007/s11109-011-9168-7>
- Gil de Zúñiga, H., Diehl, T., & Ardévol-Abreu, A. (2017). Internal, external, and government political efficacy: Effects on news use, discussion, and political participation. *Journal of Broadcasting & Electronic Media, 61*(3), 574–596. <https://doi.org/10.1080/08838151.2017.1344672>
- Gil de Zúñiga, H., Molyneux, L., & Zheng, P. (2014). Social media, political expression, and political participation: Panel analysis of lagged and concurrent relationships. *Journal of Communication, 64*(4), 612–634. <https://doi.org/10.1111/jcom.12103>
- Hacıyakupoglu, G., & Zhang, W. (2015). Social media and trust during the Gezi protests in Turkey. *Journal of Computer-Mediated Communication, 20*(4), 450–466. <https://doi.org/10.1111/jcc4.12121>
- Halpern, D., Valenzuela, S., & Katz, J. E. (2017). We face, I tweet: How different social media influence political participation through collective and internal efficacy. *Journal of Computer-Mediated Communication, 22*(6), 320–336. <https://doi.org/10.1111/jcc4.12198>
- Highfield, T., & Leaver, T. (2016). Instagram-matics and digital methods: Studying visual social media, from selfies and GIFs to memes and emoji. *Communication Research and Practice, 2*(1), 47–62. <https://doi.org/10.1080/22041451.2016.1155332>
- Hoffman, L. H., Jones, P. E., & Young, D. G. (2013). Does my comment count? Perceptions of political participation in an online environment. *Computers in Human Behavior, 29*(6), 2248–2256. <https://doi.org/10.1016/j.chb.2013.05.010>
- Howard, P. N., Duffy, A., Freelon, D., Hussain, M. M., Mari, W., & Mazaid, M. (2011). Opening closed regimes: What was the role of social media during the Arab Spring? *SSRN Electronic Journal, 1*–30. <https://doi.org/10.2139/ssrn.2595096>
- Huntington, H. E. (2019). Partisan cues and internet memes: Early evidence for motivated skepticism in audience message processing of spreadable political media. *Atlantic Journal of Communication, 28*(3), 194–208. <https://doi.org/10.1080/15456870.2019.1614589>
- Iyengar, S. (1980). Subjective political efficacy as a measure of diffuse support. *Public Opinion Quarterly, 44*(2), 249–256. <https://doi.org/10.1086/268589>
- Jenkins, H., Billard, T. J., Close, S., Elsayed, Y., Forelle, M. C., Lopez, R., & Yang, E. (2017). Participatory politics. In E. Navas, O. Gallagher, & X. Burrough (Eds.), *Keywords in Remix Studies* (pp. 230–245). New York, NY: Routledge. <https://doi.org/10.4324/9781315516417-21>
- Johann, M., & Bülow, L. (2019). One does not simply create a meme: Conditions for the diffusion of Internet memes. *International Journal of Communication, 13*, 1720–1742. Retrieved from <https://ijoc.org/index.php/ijoc/article/view/9169/2622>
- Kim, Y., & Chen, H. T. (2016). Social media and online political participation: The mediating role of exposure to cross-cutting and like-minded perspectives. *Telematics and Informatics, 33*(2), 320–330. <https://doi.org/10.1016/j.tele.2015.08.008>
- Kline, P. (1999). *The handbook of psychological testing*. London, UK: Routledge.

- Knoll, J., Matthes, J., & Heiss, R. (2020). The social media political participation model: A goal systems theory perspective. *Convergence*, 26(1), 135–156. <https://doi.org/10.1177/1354856517750366>
- Kroh, M. (2007). Measuring left-right political orientation: The choice of response format. *Public Opinion Quarterly*, 71(2), 204–220. <https://doi.org/10.1093/poq/nfm009>
- Kushin, M. J., & Yamamoto, M. (2010). Did social media really matter? College students' use of online media and political decision making in the 2008 election. *Mass Communication and Society*, 13(5), 608–630. <https://doi.org/10.1080/15205436.2010.516863>
- Lane, D. S., Lee, S. S., Liang, F., Kim, D. H., Shen, L., Weeks, B. E., & Kwak, N. (2019). Social media expression and the political self. *Journal of Communication*, 69(1), 49–72. <https://doi.org/10.1093/joc/jqy064>
- Leiner, D. J. (2019). SoSci Survey (Version 3.1.06) [Computer software]. Retrieved from <https://www.socsisurvey.de>
- Literat, I., & Kligler-Vilenchik, N. (2019). Youth collective political expression on social media: The role of affordances and memetic dimensions for voicing political views. *New Media & Society*, 21(9), 1988–2009. <https://doi.org/10.1177/1461444819837571>
- Lu, M., & Fan, H. (2018). I sang, therefore I am! Uses and gratifications of self-mocking memes and the effects on psychological well-being. *International Journal of Cyber Behavior, Psychology and Learning*, 8(2), 35–50. <https://doi.org/10.4018/IJCB-PL.2018040103>
- Micheletti, M. (2003). *Political virtue and shopping: Individuals, consumerism and collective action*. New York, NY: Palgrave Macmillan. <https://doi.org/10.1057/9781403973764>
- Milner, R. M. (2013). Pop polyvocality: Internet memes, public participation, and the Occupy Wall Street movement. *International Journal of Communication*, 7, 2357–2390. Retrieved from <https://ijoc.org/index.php/ijoc/article/view/1949/1015>
- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *Cyberpsychology & Behavior*, 12(6), 729–733. <https://doi.org/10.1089/cpb.2009.0003>
- Penney, J. (2019). 'It's my duty to be like "this is wrong"': Youth political social media practices in the Trump era. *Journal of Computer-Mediated Communication*, 24(6), 319–334. <https://doi.org/10.1093/jcmc/zmz017>
- Peters, C., & Allan, S. (2022). Weaponizing memes: The journalistic mediation of visual politicization. *Digital Journalism*, 10(2), 217–229. <https://doi.org/10.1080/21670811.2021.1903958>
- Ross, A. S., & Rivers, D. J. (2017). Digital cultures of political participation: Internet memes and the discursive delegitimization of the 2016 U.S. Presidential candidates. *Discourse, Context & Media*, 16, 1–11. <https://doi.org/10.1016/j.dcm.2017.01.001>
- Ross, A. S., & Rivers, D. J. (2019). Internet memes, media frames, and the conflicting logics of climate change discourse. *Environmental Communication*, 13(7), 975–994. <https://doi.org/10.1080/17524032.2018.1560347>
- Shifman, L. (2014). *Memes in digital culture*. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/9429.001.0001>
- Skoric, M. M., Zhu, Q., Goh, D., & Pang, N. (2016). Social media and citizen engagement: A meta-analytic review. *New Media & Society*, 18(9), 1817–1839. <https://doi.org/10.1177/1461444815616221>
- Theocharis, Y., & de Moor, J. (2021, April). Creative participation and the expansion of political engagement. *Oxford Research Encyclopedia of Politics*. Retrieved from <https://doi.org/10.1093/acrefore/9780190228637.013.1972>
- Toffler, A. (1980). *The third wave*. New York, NY: William Morrow.
- Uski, S., & Lampinen, A. (2016). Social norms and self-presentation on social network sites: Profile work in action. *New Media & Society*, 18(3), 447–464. <https://doi.org/10.1177/1461444814543164>
- Valenzuela, S., Arriagada, A., & Scherman, A. (2012). The social media basis of youth protest behavior: The case of Chile. *Journal of Communication*, 62(2), 299–314. <https://doi.org/10.1111/j.1460-2466.2012.01635.x>

- van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin, 134*(4), 504–535. <https://doi.org/10/c6hxx7>
- Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA: Harvard University Press. <https://doi.org/10.2307/j.ctv1pnc1k7>
- Vissers, S., & Stolle, D. (2014). The Internet and new modes of political participation: Online versus offline participation. *Information, Communication & Society, 17*(8), 937–955. <https://doi.org/10.1080/1369118x.2013.867356>
- Weeks, B. E., Ardèvol-Abreu, A., & Gil de Zúñiga, H. (2017). Online influences? Social media use, opinion leadership, and political persuasion. *International Journal of Public Opinion Research, 29*(2), 214–239. <https://doi.org/10.1093/ijpor/edv050>
- Williams, A. (2020). Black memes matter: #LivingWhileBlack with Becky and Karen. *Social Media + Society, 6*(4), 1–14. <https://doi.org/10.1177%2F2056305120981047>
- Wolfsfeld, G., Yarchi, M., & Samuel-Azran, T. (2016). Political information repertoires and political participation. *New Media & Society, 18*(9), 2096–2115. <https://doi.org/10.1177/1461444815580413>
- Xenos, M., & Moy, P. (2007). Direct and differential effects of the Internet on political and civic engagement. *Journal of Communication, 57*(4), 704–718. <https://doi.org/10.1111/j.1460-2466.2007.00364.x>
- Yamamoto, M., Nah, S., & Bae, S. Y. (2020). Social media prosumption and online political participation: An examination of online communication processes. *New Media & Society, 22*(10), 1885–1902. <https://doi.org/10.1177/1461444819886295>
- Yeich, S., & Levine, R. (1994). Political efficacy: Enhancing the construct and its relationship to mobilization of people. *Journal of Community Psychology, 22*(3), 259–271. [https://doi.org/10.1002/1520-6629\(199407\)22:3%3C259::AID-JCOP2290220306%3E3.0.CO;2-H](https://doi.org/10.1002/1520-6629(199407)22:3%3C259::AID-JCOP2290220306%3E3.0.CO;2-H)
- Zannettou, S., Caulfield, T., Blackburn, J., de Cristofaro, E., Sirivianos, M., Stringhini, G., & Suarez-Tangil, G. (2018). On the origins of memes by means of fringe web communities. *Proceedings of the 18<sup>th</sup> Internet Measurement Conference*, 188–202. <https://doi.org/10.1145/3278532.3278550>
- Zhang, B., & Pinto, J. (2021). Changing the world one meme at a time: The effects of climate change memes on civic engagement intentions. *Environmental Communication, 15*(6), 749–764. <https://doi.org/10.1080/17524032.2021.1894197>
- Zhu, A. Y. F., Chan, A. L. S., & Chou, K. L. (2019). Creative social media use and political participation in young people: The moderation and mediation role of online political expression. *Journal of Adolescence, 77*, 108–117. <https://doi.org/10.1016/j.adolescence.2019.10.010>