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The Roles of Different News Media Use and Press Freedom in Education- Generated
Participation Inequality: An Eight-Country Comparative Analysis

Abstract

This eight-nation comparative study adopts a multi-modal analytical approach in investigating education-driven stratification in political participation and the simultaneous roles of various media (print newspaper, television, radio, and social media) and press freedom in influencing this inequality. The findings suggest that informational use of social media, print newspaper, and radio increases the likelihood of participation, but consuming television news inhibits participation. Furthermore, social media use, like radio and television use, exacerbates the education-generated inequality. Press freedom as a socio-political factor reinforces the role of the television, print newspaper, and social media in participation inequality. Theoretical and policy implications are discussed.

Keywords: political participation; media use; education; political inequality; press freedom.

Decades of research has confirmed that the higher educated citizens are more politically active than those with lesser education (Castillo, Miranda, Bonhomme, Cox, & Bascopé, 2015; Verba & Nie 1972). Following the seminal work of Almond and Verba (1965), numerous scholars have consistently found empirical support that the level of education positively influences political interest and participatory behavior of the citizenry (Inglehart, 1981; Nie et al., 1996). Repeatedly, scholars have considered education to be the single most important factor in explaining citizen participation (Converse, 1972; Nie, Junn, & Stehlik-Barry, 1996). Expectedly those with higher education are thus more active in voicing their political needs and influencing political outcomes than their lesser counterparts (Verba, Schlozman, & Brady, 1995). This has led to a type of social inequality - political inequality, a stratification where citizens from less educated backgrounds are suggestively less active in the governing process of a nation and are marginalized as compared to those with higher education. This inequality poses a threat to the legitimacy of a democracy (Dahl, 2006; Lijphart, 1997).

More recently with the rise of social media, debates surrounding the effect of online communication channels on political inequality has surfaced. Proponents of the mobilization thesis believe that social media by easing the cost of political participation would help subvert the offline inequalities by empowering the marginalized (Valenzuela, Somma, Scherman, & Arriagada, 2016; Xenos, Vromen & Loader, 2014). On the other hand, reinforcement scholars argue that social media is not free from the offline power structures and merely replicates the existing political inequalities where the privileged exploit the medium to a greater advantage (Gustaffson, 2014; Rainie & Smith, 2012). Despite the growing literature, there is no conclusive answer to the effects of social media on political inequality.

The current literature has predominantly focused on the mobilizing-reinforcing effects of social media without paying attention to a broader convergent view. The digitization of news content has allowed for an easy flow of information across platforms (Picone, Courtois, & Paulussen, 2014) and users often engage in multi-modal news consumption (Chadha, 2018). Thus, to gain further success in mobilization-reinforcement scholarship, a multi-media analytical approach should be commonly adopted. Such undertakings would offer deeper and more realistic insights into the effects of specific media's use within the logic of a multifaceted media environment.

Not only is the current literature limited in its cross-platform approach, but the geopolitical focus has largely remained on advanced Western democracies (cf. Valenzuela et al., 2016). A lack of evidence from non-Western contexts, make it problematic to apply the arguments and findings to other parts of the world.

This study fills the current gaps in the literature by conducting cross-national comparative research analyzing the pattern of education-driven stratification in political participation and the simultaneous role of different media (print newspaper, television, radio, and social media) in influencing this inequality. Adopting a cross-national approach enhances the generalizability of these findings, which is sporadic in the current literature. This study also examines how the press freedom of a country shapes the role of media in influencing participation inequality. Such a framework increases the theoretical contribution of the study as investigations exploring how macro-level socio-political contexts interact with different types of news media use by individuals is still rare in the literature on political participation and inequality. The 2016 Pew Spring Survey data ($N = 9,825$) from eight countries (Greece, Hungary, India, Italy, Kenya, Nigeria, Poland, and South Africa) is used to examine the hypotheses and research questions.

Education and Political Participation

Citizens' voluntary engagement in political activities is a fundamental premise for any political system and is an essential feature of democracy. As Verba and Nie (1972) suggest, "where few take part in decisions there is little democracy; the more participation there is in decisions, the more democracy there is" (p. 1). Given that political participation is decisive in the development and assessment of the quality of a democracy, it is critical that the overall public engagement in political activities should be representative of the citizenry; otherwise, there is a threat of underrepresentation of certain section(s) of the population (Lijphart, 1997). A large body of empirical research, however, has established that those with higher education play a bigger role in politics as compared to their less educated counterparts (Lijphart, 1997; Verba et al., 1995). As Verba, Schlozman, and Burns (2005) suggest, "educational attainment is, in fact, the single most potent predictor of an adult's political activity" (p. 13). The positive association between education and political participation highlights the underlying benefits education confers; these include the procurement of cognitive abilities that help to effectively understand political content, the growth of civic skills that foster political activities, enhancement of political efficacy and interest, or the access to a larger social network that facilitates mobilization. Simply put, citizens with higher education have more opportunities to develop and sustain other key resources necessary for political participation. This uneven distribution of resources, thus available to citizens with higher education, allows them to be more politically active and exert disproportionate influence over government and policymakers. This pattern violates the democratic ideals of equality thereby creating a participatory gap between high and low educated groups in societies (Dahl, 2006). The assessment that education facilitates participatory benefits in the political life follows Mann's description that education, "beyond all other devices of

human origin, is the great equalizer of the conditions of men—the balance wheel of the social machinery” (Mann, 1960, p. 87).

More recent research has also confirmed that education is positively related to political participation (Castillo et al., 2015; Gil de Zúñiga, Jung, & Valenzuela, 2012). These findings are not limited to Western democracies – scholars have found similar patterns in other parts of the world (Borooah, & Tagat, 2017; El-Said & Rauch, 2015). Based on research that consistently establishes the positive association between education and political participation, the first expectation is that:

H1: Education will be positively associated with political participation.

Media Use and Political Participation

Within the media use and political participation research, one of the widely debated questions has been if attitudes and norms that stem from mass media use is equivalent to other core positive determinants of participation like education and socioeconomic status. Some scholars have argued that media fosters political distrust, erodes social trust, and inculcates cynicism that discourages users from civic life and political engagement (Capella & Jamieson, 1997; Putnam, 1995). Refuting the dystopian view, others have found positive effects of media use on civic and political behavior, and the arguments for negative media effects on political engagement were dismissed as “intuitively appealing yet simplistic” (Shah, McLeod, & Yoon 2001, p. 465). It is argued that participation is facilitated not by the time spent in media use, but the specific types of media content that is consumed (McLeod, 2000). Others argue that user motives are to be considered while measuring the effects of media use on political participation (Shah et al., 2001). Zhang and Chia (2006) highlight the need to separate the two methods adopted in literature – examining the participatory effects of media forms vs. media content.

The influence of media on political participation differs with the medium because the types of media can serve different purposes (Shah et al., 2001). While television viewing (Putnam, 1995) and general Internet use (Kraut et al., 1998) have been found to inhibit political engagement, newspaper reading has constantly been found to be a positive predictor of political participation (Norris, 1996; Shah et al., 2001). A focus on the radio has been rare but limited evidence has resulted in mixed findings (Hofstetter & Gianos, 1997; Hollander, 1996).

The differential effects are not only limited to forms of media but also the type of media content. Television programs based on fictional content are negatively associated with participatory behavior, but exposure to news and public affairs have been found to increase political participation (McLeod et al., 1996; Norris, 1996). Others have found news use of television to be either a weak predictor (Bakker & deVreese, 2011) or unrelated to political participation (Gil de Zúñiga, Puig-i-Abril, & Rojas, 2009). A multi-faceted use of social media, such as information seeking, social interactions, and entertainment, has been differentially associated with civic and participatory action (Skoric et al., 2016).

While a majority of the studies exploring media tend to suggest that informational use enhances political participation, yet, there is no conclusive pattern for the simultaneous effects of several types of media on participatory behavior (cf. Zhang & Chia, 2006). Outside of political participation research, media scholars have consistently explored the functions, effects, and implications of media technologies on attitudes and behavior but most of the early adopted approaches involved an assumption that media is used in sequence and not simultaneously (Hassoun, 2014). With the rise of digital new media, a recurring discussion focused on if the digital new media would displace, replace, or supplement the traditional old media (see Althaus & Tewkesbury, 2000). Research in the last two decades has confirmed that traditional media

continue to be an important source of information in our sociopolitical lives, but news consumption now takes place across mediums with a large role played by new media (Jensen, Mortensen, & Ormen, 2016). Research focusing on hybrid media consumption suggests that users consistently engage in second screening behavior where users watch television and continuously engage in supplemental digital media. This second screening behavior has been found to provide a path for television news viewers to online political engagement (Gil de Zúñiga, Garcia-Perdomo, & McGregor, 2015). Given the changing news consumption patterns and the growing role of social media in political life, there should be more attention to the question as to whether and how consumption of news across old and new media forms converges and simultaneously affects participatory behavior. Answering this question would help develop new empirical insights and theoretical perspective within the widely investigated field of media use and participation. The following research question is proposed:

RQ1: What are the differential effects of the informational use of print newspaper, television, radio, and social media on individuals' political participation?

Mobilization vs. Reinforcement

Several scholars have explored the direct effects of different forms of media use on political participation but an attention to how does it affect the participatory stratification amongst social groups is limited. Of the research that exists, a majority has focused on the mobilizing effects of social media (Valenzuela et al., 2016; Valeriani & Vaccari, 2016; Xenos et al., 2014). Within the current literature, there are two common contrary viewpoints. The mobilization hypothesis theorists argue that social media narrows the participation gaps between stratified groups because the participatory nature of social media lead a larger group or a previously disengaged group of the citizenry into active politics (see Valenzuela et al., 2016;

Xenos et al., 2014). While the online tools do not directly influence the key inherent resources of participation it reduces the cost of participation. As Shirky (2008, p. 159) states, “social tools don’t create collective action – they merely remove the obstacles to it.” Accidental or inadvertent learning on social media can also help those who are not psychologically engaged in politics to draw near those who are more involved (Valeriani & Vaccari, 2016). Additionally, social media also allows maintenance of a larger social network which can increase the likelihood of mobilization. In summary, the mobilization theorists suggest that social media would empower those who are traditionally inactive or ignored in politics.

In opposition to this equalizing viewpoint, others assert that online medium does not alter existing patterns of inequality but only mirrors the offline reality (Schlozman, Verba, & Brady, 2010). The reinforcement scholars argue that even if the Internet or social media were to reduce the costs of participation, it would be the already advantaged groups who exploit the medium more than the disadvantaged groups due to their existing knowledge and skills (Di Gennaro & Dutton, 2006; Gustafsson, 2014). Therefore, despite the reduced costs of participation, the online medium may amplify the participatory gaps that exist between the advantaged and disadvantaged groups (see Gustafsson, 2014; Raine & Smith, 2012).

Empirical evidence suggests that there is little consistency on the proposed mobilizing effects on political participation. The mobilization-reinforcement scholars have rarely investigated the effects of other forms of media or simultaneously considered them while evaluating the effects of social media. Some may argue that print and broadcast media are not as revolutionary as social media. This study argues that it is important to consider the mobilization-reinforcement effect of all media forms simultaneously. The current news media environment is a complex network of readily available information across media and platforms. News users are

not restricted to one medium and increasingly select their trajectories across multiple media platforms (Picone et al., 2014). Recent news consumption findings suggest that users do not always use what they prefer and do not prioritize what they use (Swart, Peters, & Broersma, 2017). There has been a continuous rise in second screening behavior where individuals engage in a hybrid media process that combines watching television and using a second, web-connected screen (Gil de Zúñiga et al., 2015). Thus, for a comprehensive understanding of the mobilization-reinforcement effects of the Internet and social media, the different forms should be studied simultaneously.

Considering that there is no scholarly agreement on the mobilization-reinforcement effects of the social media and there is a lack of research on other media forms, there is uncertainty over a directional relationship. Furthermore, most of the empirical scholarship in this area of study has focused on advanced democracies and there is no conclusive expectancy for underexplored contexts (e.g., Kenya, Nigeria, and India). Thus, given the above review, the following research question is proposed:

RQ2: Do the various forms of media use (print newspaper, television, radio, and social media) for news purposes amplify or reduce political participation gaps that exist among individuals at various education levels?

Media Use, Participatory Inequalities, and Press Freedom

The mixed findings in literature as to the mobilization vs. reinforcement hypotheses demand more refined analyses when probing the effects of media use on participation gaps. This study not only utilizes a cross-national comparative framework to advance the arguments, but also examines the influence of press freedom, a key institutional factor, to uncover the role of media in participatory inequalities. Previous literature has established the importance of macro-

societal variables in evaluating the role of media; however, it is rarely applied in political communication research (Jorba, Jensen, & Anduiza, 2012). This study considers the press freedom of a nation as an important intervening variable between citizens' media use and participation gaps driven by educational levels.

Media functioning and news content are often driven by the political milieu of a country (Hallin & Mancini, 2004). Media systems and government restrictions on the media greatly vary between countries and regions. While in some settings the media is largely independent of the government in others the media functioning is highly constrained where they are often used as a propaganda tool (Chomsky, 2002). Even in settings where media freedom is high, the government has been found to use subtle ways to control specific information key to their political success (Bennett, Lawrence, & Livingstone, 2008).

In the context of the selected subset of countries analyzed in this study, the press in South Africa has witnessed substantial growth since the end of the apartheid era. Today, the nation has one of the freest press in the continent and is the only one with the freedom of information law: The Promotion of Access to Information Act (Karikari, 2004). According to the Foreign Correspondents Association, an organization representing foreign journalists in South Africa, "a free and open press is one of the pillars of democracy and unfortunately there is little evidence of this on the African continent, other than in South Africa." While on the other hand, the press freedom in India is on a decline with top politicians publicly attacking the press and a climate of hate against newsmakers is on the rise. Indian media is rather tame and does not fulfill its watchdog function in society (George, 2010). Some media organizations are either allies of the government or receive financial benefits from the government (Yin, 2011). The existence of

sedition law in the country, that encourages self-censorship further curtails press freedom in an era currently described by some as a period of “heightened nationalism” (Rangnekar, 2018).

Press freedom has long been positively associated with political participation (Leeson, 2008), and to determine public media use (Wei et al., 2014). In a recent meta-analysis, Boulianne (2019) found a positive relationship between social media use and political participation but informational use of social media in countries with restricted press freedom were less likely to transform into offline political participation as compared to relatively freer countries. Similarly, Vaccari and Valeriani (2018) found that the effect of dual screening behavior on political participation is significantly stronger in countries whose media systems feature the strongest Public Service Broadcasters. Moreover, these mobilization benefits were stronger for those who with lower levels of political interest suggesting that a strong public service media system can help attain political equality.

Despite the evidence that press freedom influences both participatory and media use behavior, it is still uncertain how it would interplay with the influence of different media forms on participatory gaps. Thus, the following research question is proposed:

RQ3: How does press freedom of a country shape the role of the media news use (print newspaper, television, radio, and social media) in education-related participation gaps?

Method

Data

This study uses the 2016 Pew Spring Survey data to address the hypotheses and research questions. The survey provides data from 19 countries, but the data used in this study include responses from individuals in eight countries (*N* = 9825, *Mean Response per Country* = 1228, *Minimum* = 1003 for Poland, *Maximum* = 2464 for India) since 11 countries are excluded from

analyses due to the unavailability of data on variables of interest in this study. The countries under analyses include Greece, Hungary, India, Italy, Kenya, Nigeria, Poland, and South Africa. Though the selection is convenient, it does offer a valuable set with representation across three continents and varied sociopolitical contexts.

Within each country, a multi-stage, area probability design is used for sampling. A face-to-face survey was conducted to draw a sample which included adults above the age of 18. All the surveys used a standard set of questions which was translated into several major languages in each country (e.g., English, Zulu, North Sotho, Afrikaans, South Sotho, Xhosa in South Africa). All analyses reported are weighted with the built-in variable “final weight,” which produces nationally representative results. For more details on the methodology, please check the <https://www.pewresearch.org/methods/interactives/international-methodology/global-attitudes-survey/all-country/all-year>

Measures

Dependent variable. The dependent variable is a measure of offline political participation. In the survey, respondents in each country were asked whether they have engaged in the following activities in the past year: a) attended a political campaign event or speech; b) participated in an organized protest of any kind; and c) participated in a political, charitable, or religious-based volunteer organization. The participants responded to each item on a four-point scale: 1 = have done in the past year; 2 = have done in the more distant past; 3 = have not done but might do, and 4 = have not done and might not do. These responses were recoded with 1 and 2 being coded as affirmative (1 = participated) and 3 and 4 as non-participation (0 = not participated). Finally, an index was created by summing the items ($M = .85$; $SD = 1$, $\alpha = .63$).

Independent variables. There are three sets of independent variables in this study – education, news use (by medium), and press freedom. These are discussed below.

First, the level of education was measured by asking respondents’ the highest level of school they had completed or the highest degree they had received. Since education was measured on different scales across countries, the measure for each country was individually standardized before being considered as a measure for analyses ($M = 0$, $SD = 1$).

Second, news media use was measured by asking respondents how often they got news from the following mediums a) print newspaper, b) television, c) radio, and d) social media sites such as Facebook, Twitter, and (country specific examples were included in the questionnaire). The responses were measured on a four-point single item (1 = often, 2 = sometimes, 3 = hardly ever, 4 = never). The items were reverse coded so that higher values reflected more frequent use than lower values. Television was the primary choice of news consumption ($M = 3.35$; $SD = .96$), followed by radio ($M = 2.69$; $SD = 1.18$), print newspapers ($M = 2.50$; $SD = 1.14$) and social media ($M = 2.08$; $SD = 1.26$).

Last, press freedom was constructed by using the 2016 World Press Freedom Index by Reporters without Borders. The raw scores ranging from 0 (“full media freedom”) to 100 (“no media freedom”) was recoded ($100 - \text{score}$) with a higher score reflecting more press freedom ($M = 67.71$; $SD = 7.35$, *Minimum* = 56.83 - India, *Maximum* = 78.08 - South Africa).

Control variables. In all models, four macro-level controls, two structural and two cultural variables, were considered. Structural controls included Human Development Index ($M = .71$; $SD = .13$) and democracy index ($M = 6.86$; $SD = 1.14$). Cultural variables included Hofstede’s cultural dimensions: individualism ($M = 51.35$; $SD = 18.32$) and masculinity ($M = 63.34$; $SD = 9.33$). Individualism measures the degree of interdependence a society maintains

among its members while a high score on masculinity suggests that the society is driven by competition and achievement.

The scores for the 2015 UNDP's HDI dimensions (health, education, and standard of living) are aggregated at the geometric mean into a composite index (0 to 1) where higher scores suggest a greater national growth. The democracy index provided by Economist Intelligence Unit measures the state of democracy in a country on a scale of 0 (being strictly authoritarian) to 10 (being a full democracy): e.g., Nigeria = 4.50, Italy = 7.98.

Controlling for macro-level variables in the analysis will enable a nuanced understanding of the relationships between education, news media use, and political participation while controlling for structural socio-economic and political developments.

At the individual-level, the control variables included a) age ($M = 41.98$; $SD = 17.58$), b) gender (48.8% males), c) urbanity (48.5% respondents resided in rural areas), d) owning a cell phone (83.9% yes), e) number of people in the household ($M = 5.02$; $SD = 7.31$), and f) economic evaluation measured by asking, "how would you describe the current economic situation in (survey country)," on a four-point scale ranging from 1 = very good, 2 = somewhat good, 3 = somewhat bad and 4 = very bad ($M = 2.72$; $SD = 1.02$).

Finally, for exploring mobilization-reinforcement thesis and the role of press freedom, interaction terms were created between education, news media use (television, print newspaper, radio and social media), and press freedom.

Results

Hierarchical multiple regression analysis was conducted to test the hypothesis and examine the research questions. The control variables account for 7.1% of the overall variance in the model (Table 1 Model 1). The results suggest that HDI ($\beta = -.103$, $p < .001$) and masculinity

($\beta = -.229, p < .001$) were found to be significant predictors of participation. Among the individual-level controls, those who were older ($\beta = .061, p < .001$), males ($\beta = .132, p < .001$), owned a cellphone ($\beta = -.082, p < .001$), and negatively evaluated the current economic situation in the country ($\beta = .034, p < .001$) were more likely to engage in political activities. Democracy index score, individualism, and urbanity were found to be statistically significant (Model 1), but they lose their significance in the follow-up models.

The introduction of the independent variables in the model increases the overall variance by 2.5% ($R-sq = 9.6\%$). The results (Table 1 Model 2) suggest that education ($\beta = .075, p < .001$) is positively related to political participation (*HI*). This finding corroborates the arguments put forward by the CVM model (Verba et al., 1995) suggesting that individuals with higher levels of education are more likely to engage in political activities than individuals with lower levels of education.

Recall that *RQ1* concerned the relationship between concurrent news media use and political participation. Results suggest that using print newspaper ($\beta = .054, p < .001$), radio ($\beta = .084, p < .001$), and social media ($\beta = .071, p < .001$) for news consumption were positively associated with offline political participation but television news use was found to be a negative predictor ($\beta = -.057, p < .001$). These findings are mostly consistent with previous empirical research supporting the idea that informational uses of media are related to increased political engagement (Gil de Zúñiga et al., 2012; Shah et al., 2005). The negative relationship between television news use and political participation can be understood through the media malaise theories supporting the idea that increased television use leads to mistrust and disengagement from the political process (Capella & Jamieson, 1997; De Vreese & Semetko, 2002).

To summarize, the above findings validate the significant role of education and print newspaper, radio, and social media news use in explaining political participation. The next step evaluates the degree to which the simultaneous informational use of different news mediums may deepen or bridge political participation gaps that exist among individuals at various levels of education (*RQ2*), and how the press freedom of a country impacts these relationships (*RQ3*).

Model 3 (Table 1) answers *RQ2*. The two-way interaction between education and television news use ($\beta = -.131, p < .001$), radio news use ($\beta = .057, p < .01$) and social media news use ($\beta = .057, p < .001$) were found to be statistically significant. The interactions are plotted in Figures 1a, 1b, and 1c respectively.

The results suggest that at low levels of radio and social media use, the participatory gaps between low and high education levels are significantly less, whereas, at higher levels of respective media use, the difference in participation gaps is significantly more. For television news use, there is a similar pattern of exacerbation between low and high education groups, but unlike radio and social media news use, here high use is related with low levels of participation.

Considering that the sample includes respondents from eight countries with varying socio-economic and technological settings, these estimates confirm the idea that the more educated individuals and groups in society are well equipped to exploit news mediums more than their lower educated counterparts. Thus these findings establish the reinforcing role of different types of news medium in political engagement.

[Table 1 and Figure 1 about here]

The final research question (*RQ3*) aimed to understand the role of press freedom in influencing the mobilizing-reinforcing effect of the informational use of different media types.

As presented in Table 2, the three way-interaction relationships between press freedom,

education, and television news use ($\beta = .861, p < .05$), print news use ($\beta = .694, p < .01$), and social media news use ($\beta = .705, p < .01$) were found to be statistically significant indicating that the patterns of interplay between education and print and social media news use respectively vary across countries with differing press freedom.

As shown in Figure 2, in countries with restricted press freedom higher levels of television for news purposes are associated with a wider participation gap between higher and lower education groups. Here, the participation rates are negatively associated with higher levels of television use for news. This pattern is visibly different in countries with relatively more press freedom where we observe higher participation levels with higher levels of television news use for both low and high education groups. Under both contexts, medium and high press freedom, the participatory divide between low and high education groups remain consistent across television use.

When we analyze the results for newspaper use, as shown in Figure 3, in contexts with restricted press freedom, the participatory gap between low and high education groups at higher levels of print news use is diminished. These effects are again visibly different in countries with relatively more press freedom. In the medium press freedom contexts, the participatory gap between low and high education groups are consistent across low and high print news use conditions. However, in countries with relatively higher press freedom, the participatory gap between low and high education groups become wider when the print news use is higher.

Similar patterns are observed for social media news use. As observed in Figure 4, in restricted press freedom countries, the low education groups attain more out of social media use than the high education group, but the pattern seems to reverse in favor of high education groups

in settings with the relatively freer press with the greatest divide in countries with high press freedom.

In summary, these findings confirm that macro factors such as press freedom shape the effect of the informational use of media on political participation inequality.

[Table 2 and Figure 2, 3, 4 about here]

Discussion

The findings presented here provide insights into how different media platforms influence education stratification in political participation. The first set of findings confirm the hypothesis (H1) that individuals with higher education are more likely to engage in political activities. This result corroborates previous findings that education increases the likelihood of political participation, even across previously underexplored non-Western contexts. The relationship between education and participation stays robust across several models, and remain consistent across countries, even with significant variance in technological and educational backgrounds, validating the argument that education is one of the most important predictors of political participation (Mann, 1960).

Secondly, this study explored the direct effect of different types of media use for political participation (RQ1). The findings show that higher informational use of most types of media is positively related to political participation. The positive association between print news, radio, social media use, and participation highlights the positive influence of news consumption on the political behavior of the citizenry. However, viewing television news was found to be negatively related to political participation.

These findings are a cause of concern, given the fact that television is still a primary source of information in most societies (Cornia, 2017; Menon, 2017). Television news is

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4 expected to be the most susceptible to adopting a formula that caters towards sensationalism,
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6 drama, and a stream of cynical news (Bennett, 2016). Previous research has found a positive
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8 association between television viewing, social distrust (Avery, 2009) and political cynicism
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10 (Baumgartner & Morris, 2006), which are factors that inhibit participation. Consequently, it is
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12 speculated that these findings may reflect both platform differences and differences in news
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14 content across platforms. The results also reinforce the argument that both content and platform-
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16 specific measures instead of time-spent or generic measures should be used to examine the
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18 effects of media consumption on political behavior. It also supports the view that the impact of
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20 informational uses of different media is not alike, and future scholars should design research
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22 frameworks accordingly.
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27 The next research question explored the mobilizing-reinforcing effects of different types
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29 of media in education generated participation gaps (RQ2). The results show a statistically
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31 significant interaction between education and each of the three types of media use - radio,
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33 television, and social media. It is conjectured that the participatory difference between high and
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35 low education groups for radio and social media use is perhaps due to the Knowledge Gap
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37 hypothesis (Tichenor, Donohue, & Olien, 1970) which posits that when new information enters a
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39 social system via mass media, it is likely to intensify underlying inequalities. It is thus
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41 anticipated that the differences in pre-existing political knowledge and information processing
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43 strategies empowered individuals with higher education to turn available information into
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45 mobilizing efforts more effectively than those with lower levels of education. In other words,
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47 while citizens from all strata may learn new information because of exposure to mass media, but
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49 citizens with higher socioeconomic status (because of their higher education privileges) are more
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51 likely to acquire knowledge at a more rapid pace than those with lower socioeconomic status. As
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a result, the knowledge gap between the two groups will expand. Furthermore, while the high education groups benefit from radio and social media use, they are also better equipped than their low education counterparts in eschewing the adverse effects of television news that curb political participation. These findings call for governments and policy-makers to work on media literacy programs that protect, empower and increase awareness among low education groups about the harmful effects of media.

The findings of the last research question (RQ3) suggest that press freedom as a contextual factor can reinforce the role of print news, television, and social media in political participation inequality. In countries with high press freedom, the findings show that greater use of print news media amplifies the participatory gaps between high and low education groups, but this effect is smaller in countries with constrained press freedom. It is expected that in countries with a freer press, the media faces relatively little government intervention when it publishes political content and as a result, the information environment is both rich and diverse. In such circumstances, the high education groups can efficiently exploit the resources to their advantage. On the other hand, in countries with restricted press freedom, political news is filtered by the government. Within this restrictive information environment, the high education group would reach a ceiling effect because the print media would fail to offer much beyond what they already know and can utilize to turn into political actions. On the contrary, even filtered information is still helpful for the low education group in this setting, since to begin with, they have lesser knowledge and lower political participation than the high education group.

Findings for social media support its non-revolutionary perspective since social media use tends to exacerbate the inequality gap in contexts with high press freedom but not in low press freedom contexts. The results also suggest that the interplay of social media with

traditional factors of participation differs with press freedom in a country. In contrast, there is no significant interaction between press freedom, education, and radio use in explaining political participation gaps. It is inferred that radio provide political news that is easily accessible and equally mobilizing for individuals with varying levels of education.

Beyond the normative implications, the findings of this study also have important theoretical implications. While the use of media for information is traditionally associated with increased levels of participation, the findings suggest that television use inhibits participation. Furthermore, while both print newspaper and social media use were associated with higher levels of participation, the effects are stronger for higher educated than lower educated groups. However, these effects were moderated by the levels of press freedom in a country. In sum, the findings highlight the need to account for differential effects of the types of media and pay attention to socio-contextual information while theorizing the effects of media use on political participation inequality.

This study contributes to the literature with a contextual understanding of political participation. The scope of interpretation is, however, delimited by a few limitations. Despite the inclusion of the cultural controls, we still cannot deny the possibility that there lies an issue in clubbing countries within the same model. Each country has its unique context in which concepts and measures (e.g., media use, participation, etc.) are interpreted and constructed differently. Although this remains a limitation, this is also a fundamental issue in most empirical, cross-national comparative studies.

As for modeling for comparative analysis, multi-level modeling is superior to a pooled-data analysis, which is what is done here. Unfortunately, however, with a cross-national comparative work with the number of countries investigated here, it wouldn't be feasible to

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4 follow multi-level modeling. We do hope some of the country-level differences are controlled for
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6 through the four variables used as controls in the study, all of which are well established, reliable
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8 measures in comparative international studies. The data from eight countries, although still
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10 limited in scope, serve the purpose of this study. Nonetheless, we fully acknowledge that it
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12 would have been better to include a more sizable number of countries, which allows a formal
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14 multi-level modeling approach and enhances generalizability.
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17 Finally, while the study offers a macro-perspective and reveals that the mobilizing-
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19 reinforcing role of media can differ with press settings, it is possible that other regional and
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21 structural factors could further influence these relationships. Unfortunately, the research
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23 framework adopted here won't be able to answer the related questions. But it suggests future
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25 research needs to probe these questions with longitudinal data and explore other key forms of
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27 participation.
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Table 1. Hierarchical Regression Predicting Political Participation

Predictors	Model 1	Model 2	Model 3
	<i>B</i>	β	β
<u>Control Variables</u>			
HDI	-.103***	-.131***	-.136***
Dem. Index Score	-.051*	.033	.035
Individualism	.098***	.042	.043
Masculinity	-.229***	-.201***	-.199***
Age	.061**	.107***	.101***
Gender (1 = male)	.132***	.115***	.114***
Urbanity (0 = rural)	-.024*	-.005	-.005
Cellphone ownership (0= yes)	-.082***	-.046***	-.049***
No. of people in household	.003	.009	.011
Economic evaluation	.034***	.034***	.032**
<u>IVs</u>			
Press Freedom		.006	.003
Education		.075***	.099*
TV news use		-.057***	-.062***
Print news use		.054***	.060***
Radio news use		.084***	.085***
Social media news use		.071***	.062***
<u>Interaction Effects</u>			
Education x TV news use			-.131***
Education x Print news use			-.001
Education x Radio news use			.057*
Education x Social media news use			.057**
<i>R-sq change (%)</i>	7.10	2.50	.02
<i>Total R-sq (%)</i>	7.10	9.60	9.80
<i>N</i>	8659	8659	8659

Notes: Gender, urbanity, and cellphone ownership are dummy coded.

*** $p < .001$; ** $p < .01$; * $p < .05$

Table 2: Three-Way Interactive Relationships among Press Freedom, Education, and Different News Use

	Protest Participation
Prior blocks (R^2 , %)	10.20
Interaction terms	
Education x TV news use x press freedom	.861*
Education x Print news use x press freedom	.694**
Education x Radio news use x press freedom	-.087
Education x Social media news use x press freedom	.705**
<i>R-sq change (%)</i>	.20
<i>Total R-sq (%)</i>	10.40
<i>N</i>	8659

Notes: Prior blocks include all variables and interactions included in Model 3 (Table 1) and pre-requisite two-way interactions between press freedom, education, and different types of news use. Entry is the beta coefficient (excluded) after controlling for the prior blocks. ** $p < .01$, * $p < .05$

Figure 1a

Figure 1b

Figure 1c

Figure 2: Three-way interactions between education, television news use, and press freedom

Figure 3: Three-way interactions between education, print news use, and press freedom

Figure 4: Three-way interactions between education, social media news use, and press freedom