**Media and Communication (ISSN: 2183-2439)  
2022, Volume 10, Issue 3, Pages X–X  
https://doi.org/10.17645/mac.v10i3.5482**

Article

**How Citizenship Norms and Digital Media Use Affect Political Participation: A Two-wave Panel Analysis**

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Submitted: 28 February 2022 | Accepted: 9 June 2022 | Published: in press

**Abstract**

A centrally important question for researchers of media and communication is whether any type of individual-level behavior (e.g., digital media use) or normative attitude (e.g., norms of good citizenship) contributes to equalizing patterns of political participation, which often favor higher-status groups. Drawing on a two-wave repeated panel telephone survey that uses a nationally representative sampling frame, this study’s research design facilitates a robust analysis of how citizenship norms and digital media use affect political participation, with a focus on comparing higher- and lower-status groups. Specifically, the study analyzes a survey conducted in 2018 (Wave 1) and 2019 (Wave 2) among Israeli citizens with representative samplings of the generally higher-status Jewish majority and the lower-status Arab minority. The findings indicate that citizenship norms and digital media use in Wave 1 have a time-ordered positive effect on nonelectoral participation in Wave 2 for both Jewish and Arab citizens of Israel. However, the findings also show that the only statistically significant determinant for voting is citizens’ Jewish or Arab identity. At a time when many democracies are facing severe challenges due to democratic erosion and social disintegration, this study contributes the normatively encouraging finding that key factors identified in the literature on citizenship norms and digital media use do not contribute to participatory inequalities between the Jewish majority and Arab minority in Israel. The findings also show, however, that it is necessary to look beyond digital media use patterns to mobilize lower-status groups to become politically engaged in electoral-oriented politics.

**Keywords**

Citizenship norms; digital media; nonelectoral participation; electoral participation; voting; high-status; low-status; participatory inequality; repeated-wave panel data

**Issue**

This article is part of the issue “Enlightening Confusion: How Contradictory Findings Help Mitigate Problematic Trends in Digital Democracies,” edited by Cornelia Mothes (Macromedia University of Applied Sciences) and Jakob Ohme (University of Amsterdam).

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**1. Introduction**

In an era marked by growing concerns about political inequality in contemporary democracies, two conflicting global trends in political behavior have garnered attention in the last several decades. First, a clear decline has taken place in voter turnout, especially among individuals of lower socioeconomic status (Blais et al., 2020; Kostelka & Blais, 2021). Second, evidence indicates an increase in nonelectoral political participation, which tends to be more common among higher socioeconomic status individuals (Dalton, 2022; Theocharis & van Deth, 2018).

Two growing lines of literature have emerged that investigate distinct explanations for these trends in political behavior. First, one line related to citizenship norms argues that changing conceptions of what it means to be a good citizen are transforming citizens’ political behavior in contemporary democracies (e.g., Dalton & Welzel, 2014). This causal theory has important implications for the study of democratic representation since it highlights the potential of pro-democratic norms to affect the political engagement patterns of diverse groups in society. A second explanation has emerged more recently in the literature focusing on digital media use as a separate important factor that influences political participation patterns (e.g., Xenos et al., 2014). While this research has confirmed the importance of these two explanatory factors on political participation, little attention has been paid to integrating them, or, particularly to testing their relative effects among diverse sociodemographic groups.

A key gap in the empirical research on these topics is that while both arguments have a clear causal logic, whereby the explanatory factors at a certain time point have a causal effect on subsequent political behavior at a later time point, existing research has been based largely on cross-sectional research designs that cannot assess causal direction (e.g., Copeland & Feezell, 2017; Dalton, 2008; Schnaudt et al., in press). Furthermore, the cross-sectional surveys that inform these studies, as well as the limited number of repeated-wave panel surveys (e.g., Ohme, 2019a; Shehata et al., 2016) have all been conducted in relatively advanced democracies (e.g., Australia, Denmark, Germany, Sweden, the United States, and the United Kingdom) and have not investigated whether citizenship norms and digital media use may have a differential impact on levels of political participation among higher-status and lower-status groups in diverse societies. The question remains, therefore, whether an equalizing effect on levels of engagement in different types of political participation can be identified among higher-status and lower-status groups characterized by multiple sociodemographic cleavages, including majority/minority ethnic status.

The current study contributes to scholarship on these topics by analyzing a survey in Israel designed to test the relative strength of these two arguments, focusing on comparing higher-status and lower-status groups. Repeated-wave panel studies on these topics have focused on adjacent theoretical questions centered on, for example, adolescent citizenship norms (Shehata et al. 2016) and how social media affects first-time voting behavior (Ohme 2019b). However, empirical research has not yet assessed the relative effect of citizenship norms and digital media use on different types of political participation with attention to whether the relations differ for higher-status and lower-status groups.

Based on an analysis of a high-quality two-wave panel telephone survey of Israeli adult citizens that uses a representative sampling frame, the findings show that citizenship norms and digital media use do not have statistically significant effects on voting behavior but do have time-ordered effects on nonelectoral political participation. Importantly, there is no evidence that either citizenship norms or digital media use contribute to participatory inequalities between the generally higher-status Jewish majority and the lower-status Arab minority. The findings and concluding discussion highlight the importance of continuing to advance political behavior research that is informed by repeated-wave panel data in diverse geopolitical contexts to assess the generalizability of theories that have gained prominence based on cross-sectional studies in advanced representative democracies.

**2. Citizenship Norms, Digital Media Use, and Political Participation**

As noted, one of researchers’ main explanations for changing trends in political participation in recent years is the effect of changing citizenship norms on political behavior. Recent scholarship on this topic has been reinvigorated by Dalton’s (2008, p. 78) investigation of citizenship norms as “a shared set of expectations about the citizen’s role in politics,” and the effect of changing norms on expanding patterns of political participation. The relationship between citizenship norms and political participation is a fundamental subject of political inquiry, dating back at least to Aristotle’s writings on political community and the common good (Smith, 1999). In modern scholarship in the fields of political science and communication, scholars have made groundbreaking efforts to assess the empirical relationship between citizens’ attitudes and political processes, from Almond and Verba’s (1963) classic cross-national empirical study of civic culture to more recent inquiries about norm change (Dalton & Welzel, 2014). Informed by both longstanding and more recent investigations of citizenship norms, scholars argue that the shared set of expectations about people’s roles in politics shapes individuals’ propensities and motivations for being politically active in various ways (Bolzendahl & Coffé, 2013). Select studies of the relationship between political attitudes and political behavior have shown that the causal arrow can point in both directions (Finkel, 1985; Gastil & Xenos, 2010; Quintelier & Hooghe, 2012; Quintelier & van Deth, 2014). These studies report evidence supporting the common assumption that attitudes have causal effects on behavior, along with evidence for the reciprocal argument that behavior can have a socializing effect that then impacts a range of political attitudes, including political interest, political efficacy, and political trust. Research by Galais and Blais (2016) focusing on the causal relationship between citizenship norms and political participation is consistent with these findings. Their results show a clear time-ordered effect of citizenship norms on political participation as well as some evidence of a causal effect in the reverse direction, with political participation strengthening ensuing citizenship norms.

A second prominent explanation for shifting patterns of political participation is that digital media use increases all types of political participation, especially nonelectoral participation (Anduiza et al., 2012; Gainous & Wagner, 2014). As noted in Boulianne’s (2020, p. 954) definitively comprehensive meta-analysis of digital media effects on civic and political participation, digital media use includes any use of a device that requires an internet connection, with relevant activity ranging from relatively passive exposure to political information to more active behaviors of blogging and social network posting. Boulianne’s (2020) study and others (e.g., Valenzuela, 2013) clarify a range of reasons why digital media use may have a positive impact on political participation, including its facilitation of information sharing, expressing opinions, and network effects. Prominent studies have found positive associations between digital media use and political participation in countries such as Australia, the United Kingdom, and the United States (Bode, 2012; Cantijoch et al., 2016; Xenos et al., 2014). Furthermore, the results of Boulianne’s (2020) meta-analysis of cross-sectional studies show a clear positive association between digital media use and political participation. In addition, a meta-analysis based on repeated-wave panel data found a significant, time-ordered effect of digital media use on subsequent civic and political participation (Oser & Boulianne, 2020).

Theoretical claims that these two explanatory factors of citizenship norms and digital media use have driven recent changes in political behavior do not inherently contradict one another. Prior research has found strong associations between each of these explanatory factors and political participation; indeed, the strength of these associations rivals the strength of the link between political participation and education, which is the most prominent covariate identified in prior research. Furthermore, recent studies have found that citizenship norms and digital media use have an interactive effect on political participation (Copeland & Feezell, 2017; Ohme, 2019a). However, the existing research has important limitations. First, research has not yet been conducted to robustly assess the relative effect sizes of these two explanatory variables. Second, researchers have not yet assessed how citizenship norms and digital media use might impact participatory inequalities between higher-status and lower-status subgroups that can be investigated in the context of deeply divided societies such as Israel (Harel-Shalev, 2010; Hermann et al., 2022).

*2.1. Why Investigate Higher-status versus Lower-status Groups?*

The importance of investigating differential effects on political participation for distinct subgroups of any polity was compellingly articulated by Sidney Verba (2015) in a fiftieth-anniversary discussion of his classic book on civic culture co-authored with Gabriel Almond (Almond & Verba, 1963). Reflecting on the legacy of this research on political culture and political participation, Verba discussed the importance of paying attention to how explanatory factors may differ for distinct subgroups of national polities:

One danger of comparative survey studies of things like political culture is that we focus heavily on the comparison across nations… But there may be as much or more difference in the political cultures of Mississippi and California as there is between the USA and many other countries — which are also heterogeneous. And we tend to typify groups within nations: women, Moslems, the rich, the poor and so forth. These perspectives are valuable — but those groups are internally divided; not all the same. The typifications are illuminating, but there is a danger of over-simplification. (Verba, 2015, p. 239)

As noted by Ariely (2011, p. 249), societal divisions in Israel create a laboratory for studying differential citizenship. Specifically, a high level of stratification and deep societal divisions, including a generally higher-status Jewish majority and lower-status Arab minority (Galnoor & Blander, 2018; Jamal, 2002; Peled, 2013), make Israel a useful context for investigating differential effects on participation across subgroups. At the time the data for the current study were collected, 2018–2019, the Central Bureau of Statistics (2019, 2020) documented a total Israeli population of approximately 9 million residents—74% Jews and 21% Arabs—which allows for meaningful empirical investigation of variation in these groups’ sociodemographics, attitudes, and behaviors. Israel is also a useful case for the current study because it is generally considered to be a democratic regime, despite the ongoing debate about the strength of its democratic characteristics (Ariely, 2022; Jamal, 2020; Oser & Galnoor, 2016).

The country also has a high level of variation in the key factors of interest in the current study of digital media use, societal attitudes, and political behavior (Hermann et al., 2022; Pew, 2011). Regarding social attitudes, prior research has generally found stronger support for pro-democratic political attitudes, such as political trust and political efficacy, among the Jewish majority than among the Arab minority (Ariely, 2018), but research focused explicitly on citizenship norms in Israel has not yet been conducted. A related divide in social attitudes identified in cross-national research is that attitudinal connection to the state is very low for the Arab minority in Israel compared to the Jewish majority (Elkins & Sides, 2007). Regarding digital media use, although Israelis have been described as “hyper-connected” (Dror & Saar, 2012), because average levels of digital media use are on par with and even exceed those in many of the most-developed democracies, previous studies have shown a digital divide within Israel characterized by intentional avoidance of digital media among lower-status groups, including the Arab minority (e.g., Hijazi-Omari & Ribak, 2008). Regarding political participation, prior research found a consistently higher voter turnout rate for the Jewish majority than for the Arab minority, while the more limited research on nonelectoral participation suggests relative parity between Jews and Arabs in levels of participation beyond the electoral arena (Ariely, 2018; Shihade, 2015).

Along with the importance of investigating these topics in diverse contexts, including deeply divided societies such as Israel’s, a single cross-sectional survey is inadequate for assessing how these factors may be causally related to each other. The hypotheses articulated in the following section, therefore, take into account the question of causal direction in the investigated relationships.

**3. Hypotheses**

Informed by this literature on the relationship between citizenship norms, digital media use, and political participation, we test the following hypotheses:

**H1 Good citizenship norms:** Norms of good citizenship have a positive effect on subsequent political participation (H1).

**H2 Digital media use:** Digital media use has a positive effect on subsequent political participation (H2).

Regarding expectations for how the generally higher-status Jewish majority and the lower-status Arab minority may operate differently in relation to the three key factors of citizenship norms, digital media use, and political participation, the literature does not inform clear hypotheses. While it is feasible that citizenship norms and digital media use may serve as particularly useful mobilizing forces for lower-status groups, alternatively these factors of citizenship norms and digital media use may be even stronger mobilizing forces in the hands of the dominant higher-status majority. In lieu of specific hypotheses about differential behavior of majority and minority groups, the current study investigates the following **research question**: How do the relationships between citizenship norms, digital media use, and political participation operate for the two key subgroups of Israeli citizens—the Jewish majority and Arab minority?

**4. Data and Methods**

*4.1. Data*

To address the theoretical interests of the study, survey data that reflects the Israeli population’s sociodemographic diversity must be analyzed. This requires a high-quality survey of the Israeli adult population that uses a nationally representative sample frame capable of gathering representative data on both Jewish and Arab citizens of Israel. In addition, multi-wave panel data of at least two waves are needed to assess the relative strength of one causal direction versus the other (Finkel 1995, 2008).

The dataset analyzed in this study is based on a telephone survey conducted by Tel Aviv University’s B.I. Cohen Institute using a representative sample frame of the Israeli adult population (for supplementary information on the dataset see Appendix Section 1: Survey, variable, and index documentation; and Section 2: Summary of sample characteristics). The selection of this survey design is informed by literature indicating that telephone samples have the capacity to be more representative of sociodemographic variation in diverse populations (e.g., Berinsky, 2017; Yeager et al., 2011). In accordance with respondents’ language preferences, the interviews were conducted in Hebrew or Arabic by professionally trained interviewers speaking in their native languages. The survey was conducted using a geographically representative sampling frame of Israeli households.

The first wave (W1, n=1,470) was conducted between November 2018–January 2019, with a response rate of 48%. The second wave of the survey was conducted between November and December 2019 and included a total re-interview sample size of n=771 for respondents who provided responses on the political participation dependent variables. This re-interview rate of 52.4% reflects the rigorous survey procedures implemented by the B.I. Cohen Institute, as prior literature indicates that repeated wave panel attrition may range between 25%–50% in rolling six-month panels, and it is common for repeated-wave panel surveys in annual or longer panels to experience attrition of 70% or higher (Bartels, 1999; Dimitrova et al., 2014). The sample in Wave 1 is fairly representative of population statistics for Jews and Arabs for the key sociodemographic characteristics of age and gender, although the sample is somewhat biased toward higher levels of education. As is common for repeated-wave surveys, this higher education bias is stronger in Wave 2, and some bias is also evident for gender and age. As education is the most important sociodemographic variable for the theoretical focus of the current study, and the sample is too small to create a valid multivariate weighting variable, we created a variable to weight the dataset to match the Israeli education distribution for Jews and Arabs (see Appendix Section 2 and replication files for further documentation). The multivariate regression findings reported in the article apply this weighting variable and the replication files document that the findings are substantively consistent with and without the applied weight.

The current study examines the two main types of political participation that have been studied most intensively in scholarship on political behavior, namely electoral-oriented participation, such as voting, and nonelectoral participation, such as protest (e.g., Brady, 1999; Oser, 2022b; Vráblíková, 2014). This study adopts this fairly parsimonious theoretical distinction (between electoral and nonelectoral participation) because much of the prior research on these topics has focused on young age groups and, thus, has either omitted the important political act of voting (e.g., Shehata et al., 2016; Xenos et al., 2014) or focused on first-time voters (Ohme, 2019b; Ohme et al., 2018b). Because national elections were held in Israel between Wave 1 and Wave 2, there is sufficient variance to include the turnout measure in dynamic models. Notably, recent innovative research has made conceptual and empirical advances in identifying several types of nonelectoral participation (Ohme et al., 2018a; Theocharis & van Deth, 2018; van Deth, 2014), and the concluding discussion details avenues for future research on these topics for additional types of political participation.

To measure the political participation indicators, we follow common research practice that investigates the effect of digital media use on political participation by operationalizing the political participation measures to include only offline political acts, thereby offering a clear distinction between independent and dependent variables (e.g., Boulianne, 2020, p. 955). Figure 1 displays the mean political participation levels of Jews and Arabs in Wave 1 and Wave 2, with valid responses on all indicators of political participation (n=771). Consistent with prior research, the most prevalent reported act among the population as a whole was voting, followed by nonelectoral political acts, including petitioning, political consumerism, attending a political meeting, donating money for a social or political activity, protesting, contacting a political or civil servant, and working in a political party or action group.

The mean participation levels in Figure 1 clarify that the relative prevalence of these different types of political behavior is similar across both waves of the study, including the differential prevalence between Jews and Arabs. Consistent with prior research, there is a clear gap between Jews and Arabs in their voting turnout, which is higher for Jews than for Arabs in both waves of the study. For nonelectoral participation, however, only two types of political acts are more prevalent among Jews than Arabs, namely petitioning and political consumerism. The remaining, less common political acts are either clearly more common among Arabs in both waves (e.g., party work), or are relatively similar between the two groups when standard errors are taken into account. Taken together, the mean participation levels show clearly higher levels of voting for the Jewish majority but relatively similar levels of nonelectoral participation for majority/minority groups. This gap between majority and minority groups for electoral participation compared to the relative parity between these groups in their levels of nonelectoral participation highlights the importance of investigating these two distinct types of political participation in the Israeli context.

**Figure 1.** Electoral and nonelectoral political participation among Jews and Arabs in Waves 1 and 2

Notes: Error bars represent 95% confidence intervals. The sample size is limited to respondents with valid data for all political participation measures depicted in the figure for both W1 and W2 (n=771).

Although some studies find that electoral-oriented political acts, such as contact and party work, form coherent indices with voting, the dimensional analyses of the data used in the current study do not support combining these indicators in a single index. The multivariate analyses conducted in this study, therefore, use two main dependent variables: for electoral participation, the indicator of **vote**, and for **nonelectoral participation** (NEP), a mean index of the other participation indicators documented in Figure 1. Table 1 documents the descriptive statistics for the political participation dependent variables as measured in Wave 1 and Wave 2, and for the independent variables and control variables measured in Wave 1, described below.

**Table 1.** Descriptive statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | N | Min | Max | Mean | SD |
| *Wave 2 DVs* |  |  |  |  |  |
| Vote W2 | 771 | 0 | 1 | 0.92 | 0.27 |
| Nonelectoral participation W2 | 771 | 0.00 | 1.00 | 0.19 | 0.21 |
| Online news media W2 | 769 | 1.00 | 5.00 | 2.53 | 1.22 |
| Social media political W2 | 769 | 0.00 | 1.00 | 0.22 | 0.31 |
| Good citizen norms W2 | 771 | 2.11 | 5.00 | 4.08 | 0.50 |
| *Wave 1 DVs, IVs, and controls* |  |  |  |  |  |
| Vote W1 | 771 | 0.00 | 1.00 | 0.91 | 0.28 |
| Nonelectoral participation W1 | 771 | 0.00 | 1.00 | 0.21 | 0.22 |
| Online news media W1 | 769 | 1.00 | 5.00 | 2.61 | 1.27 |
| Social media political W1 | 771 | 0.00 | 1.00 | 0.22 | 0.32 |
| Good citizen norms W1 | 771 | 2.22 | 5.00 | 4.08 | 0.46 |
| Arab (ref: Jew) | 771 | 0.00 | 1.00 | 0.16 | 0.36 |
| Female (ref: male) | 771 | 0.00 | 1.00 | 0.49 | 0.50 |
| Age | 764 | 18.00 | 89.00 | 48.88 | 15.72 |
| Education | 771 | 1.00 | 8.00 | 5.53 | 1.96 |
| Income | 729 | 1.00 | 5.00 | 3.03 | 1.30 |
| Internal efficacy | 765 | 1.00 | 5.00 | 3.12 | 1.11 |
| External efficacy | 771 | 1.00 | 5.00 | 2.56 | 0.87 |
| Political interest | 771 | 1.00 | 4.00 | 2.89 | 0.90 |
| Observations | 771 |  |  |  |  |

The key independent variable of **good citizenship norms** is informed by the battery of questions in the International Social Survey Programme that is analyzed in prominent studies on this topic in the literature (Bolzendahl & Coffé, 2013; Dalton 2008, 2020). The survey asks respondents to note their opinions on how important a series of items are to being a good citizen on a scale from not at all important (1) to very important (5), including: voting in elections, not evading taxes, obeying laws, keeping watch on the government, being active in social and political associations, understanding the reasoning of people with other opinions, engaging in political consumerism, and helping people in the country and in the world who are worse off than yourself. Dimensional analysis of these indicators in the Israeli data identifies one clear dimension, and indicators of index strength do not support creating subindices consistent with distinct dimensions identified in the literature using data from other contexts. Therefore, the current study uses a single mean index to measure good citizenship norms. Consistent with prior research using cross-sectional data to examine the relationship between citizenship norms and political behavior (e.g., Bolzendahl & Coffé 2013; Oser, 2017, 2022a), we acknowledge the inevitable challenge of potential endogeneity as the variables and their error terms are likely to be systematically related to one other. Yet, the current research design of a two-wave repeated panel improves the analytical capacity to assess the potential independence of these measures.

The key independent variable of digital media use is measured as a self-report of two types of digital media use in the past year. First, a measure of **online news media** is a mean scale of two items that ask respondents to note how often they use the internet or social network sites to receive political news or information (1=never; 5=several times a day). Second, a mean index of three indicators of **social media political** usage measures respondents’ reports of whether they have reposted or shared links on social media received from others, posted or shared original political content, and/or encouraged others to take political action on social media platforms. As this second measure of digital media use is the more politically active of the two, we expect it to have a stronger association with the political participation dependent variables of the study. While we follow the practice common in studies that investigate the effect of digital media use on political participation of operationalizing the dependent variable of political participation using offline measures only, it is noteworthy that this type of social media political activity is itself defined in recent studies as political participation—either in the same category with offline participation measures (e.g., Ohme et al., 2018a) or as an additional type of online participation (Theocharis & van Deth, 2018). Importantly, however, there is no danger of multicollinearity in the multivariate regression models, as the variance inflation factor (VIF) accords with accepted guidelines in the literature (e.g., Thompson et al., 2017): the VIF for social media political and nonelectoral participation measures is 1.19, and the VIF does not exceed 1.5 for any measures in the multivariate regression models.

To rigorously test the study’s hypotheses, in addition to the measure of ethnic identity (0=Jew; 1=Arab), we include the following comprehensive set of control variables: **gender** (0=male; 1=female), **age** (in years), **education** (1=elementary or less; 8=MA degree or more), **income** (self-report in relation to Israeli average household income; 1=very below average, 5=very above average), **internal efficacy** and **external efficacy** (1=low; 5=high), and **political interest** (1=not interested; 4=very interested).

The sample size for all variables included in the analysis is documented in Table 1, which shows that the maximum sample size of individuals interviewed in both waves who provided valid responses for all political participation indicators is n=771. Furthermore, the descriptive statistics in Table 1 indicate that the rigorous survey procedures succeeded in yielding low levels of missing data for all variables, including sociodemographic control variables, such as income, that tend to suffer from relatively high levels of missing data. All multivariate regressions and supplementary analyses are conducted using the maximum valid sample size for the fully specified regression analyses (n=716). See the Appendix for correlation matrices of all variables included in the multivariate regression models (Table A1).

*4.2. Methods*

The analysis proceeds in three steps. First, we estimate linear regression models with dependent variables of political participation measured in Wave 2 and all independent variables and control variables measured in Wave 1. Second, we estimate cross-lagged panel models, depicted in Figure 2, to assess whether the independent variables of Wave 1 have a time-ordered and statistically significant effect on the dependent variables in Wave 2. Although at least three observation periods are required to prove causality, cross-lagged effects based on two survey waves can establish the time-ordered direction of effects that are a necessary condition for causal relations.

Diagram

Description automatically generated

**Figure 2.** Cross-lagged panel model

Finally, we conduct interaction analyses of respondents’ ethnic identity as Jewish or Arab citizens of Israel with the independent variables of citizenship norms and digital media use to investigate our research question of whether the key findings differ in meaningful ways between these subgroups of the population. As vote is a binary indicator, logistic regression models are documented in the replication files for models with vote as the dependent variable, and the substantive findings are consistent with the linear regression models. All analyses are conducted using Stata 17.0, and supplementary analyses are documented in the Appendix (Section 3). Data and replication files are available in the Open Science Framework (Oser 2022c).

**5. Findings**

The findings for the first step of the analysis using linear regression are documented in Figure 3. For nonelectoral participation, the findings in Figure 3 provide suggestive support for the two main hypotheses of the study. Specifically, the results indicate a positive and statistically significant effect of good citizenship norms and the more active of the two measures of digital media use (“social media political,” but not “online news media”) in Wave 1 on nonelectoral participation in Wave 2. Thus, for nonelectoral participation, these findings support H1 (good citizenship norms) and H2 (digital media use). Notably, some sociodemographic variables that are often significant determinants of political participation are not statistically significant in the current study (e.g., political interest). Yet the findings show that the magnitude of the effects of social media political and good citizenship norms on nonelectoral participation is on par with the coefficient size for education, which has consistently been shown in prior research to be one of the sociodemographic variables with the strongest connection to nonelectoral participation. For electoral participation, however, the findings show that the digital media variables and good citizenship norms have no significant effect on voting and that the only statistically significant determinant is citizens’ Jewish or Arab identity.



**Figure 3.** How citizenship norms and digital media use (W1) affect political participation (W2)

Notes: Coefficient estimates with 95% confidence intervals. The sample size was limited to the identical maximal n for both models (n=716). Independent variables and control variables are measured in Wave 1, and dependent variables are measured in Wave 2. All variables are standardized except for the binary control variables of gender and Jewish/Arab ethnic identity. See Appendix Table A2 for non-standardized results in tabular form and Table A3 for results confirming that the main effects remain robust when including interaction terms between the key independent variables.

Taken together, these findings suggest potential support for a time-ordered causal effect of citizenship norms and the use of political social media on subsequent nonelectoral political participation. Turning to the second step of the analysis to test the directionality of these relations, Table 2 shows the results for the cross-lagged panel models (Frees, 2004; Paxton et al., 2011), which assess the statistical significance of the time-ordered relationships between the study’s independent and dependent variables.

**Table 2.** Cross-lagged panel models

Table 2.a. Nonelectoral participation (NEP)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
|  | NEP W2 | Norms W2 | Soc. med. W2 | Online news W2 |
| NEP W1 | 0.497\*\*\* | 0.047 | 0.049 | 0.011 |
|  | (0.033) | (0.035) | (0.036) | (0.035) |
| Norms W1 | 0.088\*\* | 0.501\*\*\* | 0.041 | 0.027 |
|  | (0.033) | (0.035) | (0.036) | (0.035) |
| Soc. med. W1 | 0.123\*\*\* | 0.022 | 0.421\*\*\* | 0.098\*\* |
|  | (0.032) | (0.034) | (0.035) | (0.034) |
| Online news W1 | 0.032 | -0.057 | 0.107\*\* | 0.414\*\*\* |
|  | (0.033) | (0.035) | (0.036) | (0.036) |
| Constant | -0.060 | -0.169\*\*\* | -0.005 | -0.020 |
|  | (0.046) | (0.049) | (0.049) | (0.049) |

Table 2.b. Vote

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
|  | Vote W2 | Norms W2 | Soc. med. W2 | Online news W2 |
| Vote W1 | 0.351\*\*\* | 0.153\*\*\* | 0.022 | 0.048 |
|  | (0.044) | (0.039) | (0.040) | (0.040) |
| Norms W1 | 0.003 | 0.498\*\*\* | 0.049 | 0.025 |
|  | (0.039) | (0.035) | (0.036) | (0.035) |
| Soc. med. W1 | 0.035 | 0.035 | 0.434\*\*\* | 0.101\*\* |
|  | (0.037) | (0.032) | (0.034) | (0.033) |
| Online news W1 | 0.038 | -0.045 | 0.112\*\* | 0.417\*\*\* |
|  | (0.040) | (0.035) | (0.036) | (0.036) |
| Constant | -0.032  (0.055) | -0.191\*\*\*  (0.049) | -0.008  (0.050) | -0.027  (0.049) |

Note: Standard errors in parentheses; \* *p*<0.050, \*\* *p*<0.010, \*\*\* *p*<0.001. The sample size was limited to the identical maximal n for both models (n=712). Results are based on fully specified models that include all control variables analyzed in Figure 3.

For nonelectoral participation, the findings in Table 2a provide evidence of a time-ordered relationship between good citizenship norms in Wave 1 and subsequent nonelectoral participation in Wave 2. These results, therefore, support H1's expectation of a time-ordered positive effect of citizenship norms on subsequent nonelectoral participation, and the findings show no reciprocal effect in the opposite direction of nonelectoral participation in Wave 1 impacting good citizenship norms in Wave 2. The same finding is obtained for the social media political measure in Wave 1 having a time-ordered effect on nonelectoral participation in Wave 2, with no reciprocal effect in the opposite direction of nonelectoral participation in Wave 1 on the social media political measure in Wave 2. Consistent with findings from the linear regression results plotted in Figure 3, the digital media use measure of online news media is not significantly related to nonelectoral participation. Furthermore, the relative strength of the two significant independent variables — good citizenship and social media political norms — on nonelectoral participation are of similar magnitude, as a post-estimation *F*-test did not reject the null hypothesis that the effect size is the same for both relations (*p*=0.441). For voting, the findings in Table 2b confirm prior results that neither of the explanatory factors investigated in the current study of citizenship norms and digital media use has an effect on voting.

In the third and final analytical step, we investigate the research question of whether the relationships analyzed to this point operate differently for the generally higher-status Jewish majority in comparison to the lower-status Arab minority. As noted, the literature does not inform clear hypotheses on this topic. The fully specified regression tables documented in the Appendix report on the interaction effect between Jewish/Arab ethnic identity and each of the three key independent variables in Wave 1 (online news media, social media political, and good citizenship norms) on the political participation dependent variables in Wave 2. The findings show that the interaction terms between Jewish/Arab ethnic identity and the key independent variables of the study in Wave 1 are not statistically significant for either nonelectoral participation or voting (see Appendix Tables A4 and A5). Thus, for the Jewish and Arab populations of Israel, these findings do not support a normatively positive conclusion that social media use is a “great equalizer” of political participation, as was found by Xenos et al.’s (2014) focus on education in three advanced democracies. However, the results of the current study do support the normatively encouraging finding that key factors identified in the literature on citizenship norms and digital media use do not contribute to participatory inequalities between the Jewish majority and Arab minority in Israel.

**6. Conclusion**

As many democracies worldwide face challenges related to democratic erosion of institutions and the disengagement of diverse populations, this study provides new insights into the relative contributions of citizenship norms and digital media use on patterns of political behavior. The findings of the current study indicate that citizenship norms and digital media use have a time-ordered, positive, and substantive effect on nonelectoral participation for both Jewish and Arab citizens of Israel. The findings also show, however, that for voting, the only statistically significant determinant is citizens’ Jewish or Arab identity. This study, therefore, contributes a normatively encouraging finding that key factors in the literature of citizenship norms and digital media use do not contribute to participatory inequalities between the Jewish majority and Arab minority in Israel. This type of time-ordered causal analysis of the factors that affect patterns of political behavior is of the utmost importance in light of the emergence of a vibrant literature that aims to assess the factors that explain changing trends in political participation among diverse socioeconomic groups in recent years.

More specifically, the findings of the current study show that for nonelectoral participation, the cross-lagged panel analyses provide evidence of time-ordered effects of citizenship norms (H1) and digital media use (H2) on subsequent nonelectoral participation. Furthermore, the standardized results show that the magnitude of these positive effects is similar to the coefficient size of the central socioeconomic status measure of education (Figure 3a). The findings confirm a main conclusion in prior research (e.g., Dalton, 2008, 2020; Xenos et al., 2014) of a meaningful effect size of these explanatory factors on nonelectoral participation, even for a representative sample of an adult population in a less developed and deeply divided democracy. Importantly, these findings are obtained through the analysis of a telephone survey that uses representative sampling procedures and includes a comprehensive set of sociodemographic control variables.

The current study also tested these hypotheses for electoral-oriented participation and the findings for this type of political participation showed no significant main effect of good citizenship norms or digital media use in Wave 1 on subsequent voting behavior in Wave 2. Rather, the findings for voting show that the only relevant sociodemographic characteristic having a main effect on voting in the repeated-wave data is individuals’ ethnic status as Jewish or Arab citizens of Israel. The results suggest that for the important political act of voting, prominent explanations in the literature for political behavior, such as citizenship norms and digital media use, are overshadowed in the Israeli context by individuals’ majority/minority ethnic identity. Regarding the research question of whether the effect of citizenship norms or digital media use on political participation operates differently for the Jewish majority and the Arab minority, the interaction effect between ethnic identity and the explanatory variables were not significant for either type of political participation. These findings indicate that the explanatory factors of citizenship norms and digital media use clearly do not provide an additional participatory boost to the Jewish majority in comparison with the Arab minority.

Along with these contributions, we conclude by noting the current study’s limitations as well as topics for future research. First, we note that while the current study'’s focus on the Israeli case provides new knowledge in the context of a deeply divided society, additional research is needed in varied contexts to test the generalizability of the findings. An additional limitation noted in the methods description is that while the two-wave panel data in the current study is adequate for identifying time-ordered effects, at least three waves are necessary to firmly establish causal relations. A related concern is that despite the relatively high reinterview response rate compared to accepted standards in the literature, repeated-wave panel studies inevitably suffer from attrition. While the total sample size for the two-wave data analyzed in the current study is adequate for multivariate analyses, a larger sample size might facilitate the identification of small or modest significant coefficients that are not evident in the current study’s findings. Furthermore, although a lag of one year with a relatively high response rate in Wave 2 is indicative of a high-quality survey design, the inclusion of longer time lags with a larger sample size would be useful for continuing to advance empirical research on these topics.

Despite the operational challenges of conducting multi-wave panel studies, this study shows the importance of fielding more extensive multi-wave panel surveys in diverse contexts to establish the generalizability of the current study’s findings and investigate additional related topics. An important direction for future research is to test more fine-grained hypotheses regarding the effect of distinct subcategories of citizenship norms and digital media use on the typology of nonelectoral participation that was established conceptually by van Deth (2014) and has been tested empirically in select contexts, such as Germany (Theocharis & van Deth 2018) and Denmark (Ohme et al., 2018a). Future research should investigate whether the findings of the current study are generalizable when analyses account for distinctions between the four main types of political participation identified in these studies—political participation occurring in the political sphere, targeted at the political sphere, targeted at community issues, and nonpolitical but politically motivated. Regarding more fine-grained research on the digital media use variables, it is noteworthy that only the more active of the two digital media use variables — social media political — analyzed has a positive effect on subsequent nonelectoral participation. Keeping in mind that the more passive measure of online news media use is not significantly related to political participation in any of the models, an important avenue of future research is to assess more specifically how different types of digital media use relate to different types of political participation. Finally, an important topic for future research is whether more fine-grained media and communication mechanisms can be identified as potential avenues for equalizing the electoral-oriented participatory playing field between higher-status and lower-status groups, even between ethnic majority and minority groups in deeply divided societies.

**Acknowledgments**

I thank Anat Oren, Karin Blanero and the B.I. Cohen Institute for Public Opinion Research for their expertise in fielding the study’s survey. I also thank the journal issue’s Academic Editors Cornelia Mothes and Jakob Ohme for their generous and insightful comments. I am solely responsible for the research.

**Funding**

This research was funded by the Israel Science Foundation [grant 1662/16 to Jennifer Oser].

**Conflict of Interests**

The author declares no conflict of interests.

**References**

Almond, G. A., & Verba, S. (1963). *The civic culture*. Princeton University Press.

Anduiza, E., Jensen, M. J., & Jorba, L. (Eds.). (2012). *Digital media and political engagement worldwide*. Cambridge University Press.

Ariely, G. (2021). *Israel's regime untangled*. Cambridge University Press.

Ariely, G. (2018). Political culture and Israeli politics. In G. Rahat & M. Hofnung (Eds.), *Oxford Handbook of Israeli Politics and Society* (pp. 597-616). Oxford University Press.

Ariely, G. (2011). Exploring citizenship spheres of inclusion/exclusion: rights as 'potential for power'. *Patterns of Prejudice, 45*(3), 241-258. http://dx.doi.org/10.1080/0031322X.2011.585020

Bartels, L. M. (1999). Panel effects in the American National Election Studies. *Political Analysis, 8*(1), 1-20. https://doi.org/10.1093/oxfordjournals.pan.a029802

Berinsky, A. J. (2017). Measuring public opinion with surveys. *Annual Review of Political Science, 20*, 309-329. DOI: 10.1146/annurev-polisci-101513-113724

Blais, A., Dassonneville, R., & Kostelka, F. (2020). Political equality and turnout. In R. Rohrschneider & J. Thomassen (Eds.), *The Oxford Handbook of Political Representation in Liberal Democracies*. https://doi.org/DOI: 10.1093/oxfordhb/9780198825081.013.20

Bode, L. (2012). Facebooking it to the polls. *Journal of Information Technology & Politics, 9*(4), 352-369. http://dx.doi.org/10.1080/19331681.2012.709045

Bolzendahl, C., & Coffé, H. (2013). Are ‘good’ citizens ‘good’ participants?. *Political Studies, 61*(S1), 45-65. http://dx.doi.org/10.1111/1467-9248.12010

Boulianne, S. (2020). Twenty years of digital media effects on civic and political participation. *Communication Research, 47*(7), 947-966. https://doi.org/10.1177/0093650218808186

Brady, H. (1999). Political participation. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of political attitudes* (pp. 737-801). Academic Press.

Cantijoch, M., Cutts, D., & Gibson, R. (2016). Moving slowly up the ladder of political engagement. *The British Journal of Politics & International Relations, 18*(1), 26-48. http://dx.doi.org/10.1111/1467-856X.12067

Copeland, L., & Feezell, J. T. (2017). The influence of citizenship norms and media use on different modes of political participation in the US. *Political Studies, 65*(4), 805-823. https://doi.org/10.1177/0032321717720374

Dalton, R. J. (2008). Citizenship norms and the expansion of political participation. *Political Studies, 56*(1), 76-98. https://doi.org/10.1111/j.1467-9248.2007.00718.x

Dalton, R. J. (2020). *The good citizen: How a younger generation is reshaping American politics* (3rd ed.). CQ Press.

Dalton, R. J. (2022). Political action, protest, and the functioning of democratic governance. *American Behavioral Scientist, 66*(4), 533-550. https://doi.org/10.1177/00027642211021624

Dalton, R., & Welzel, C. (Eds.). (2014). *The civic culture transformed*. Cambridge University Press.

Dimitrova, D. V., Shehata, A., Strömbäck, J., & Nord, L. W. (2014). The effects of digital media on political knowledge and participation in election campaigns: Evidence from panel data. *Communication Research, 41*(1), 95-118. https://doi.org/10.1177/0093650211426004

Dror, Y., & Gershon, S. (2012). *Israelis in the digital age in 2012*. The Management College (in Hebrew).

Elkins, Z., & Sides, J. (2007). Can institutions build unity in multiethnic states? *American Political Science Review, 101*(4), 693-708. https://doi.org/10.1017/S0003055407070505

Finkel, S. E. (1995). *Causal analysis with panel data*. Sage.

Finkel, S. E. (2008). Linear panel analysis. In S. Menard (Ed.), *Handbook of longitudinal research* (pp. 475–505). Elsevier.

Frees, E. W. (2004). *Longitudinal and panel data: Analysis and applications in the social sciences*. Cambridge University Press.

Gainous, J., & Wagner, K. M. (2014). *Tweeting to power*. Oxford University Press.

Galais, C., & Blais, A. (2016). Beyond rationalization: Voting out of duty or expressing duty after voting? *International Political Science Review, 37*(2), 213-229. https://doi.org/doi:10.1177/0192512114550372

Galnoor, I., & Blander, D. (2018). *The handbook of Israel's political system*. Cambridge University Press.

Gastil, J., & Xenos, M. (2010). Of attitudes and engagement. *Journal of Communication, 60*(2), 318-343. http://dx.doi.org/10.1111/j.1460-2466.2010.01484.x

Harel-Shalev, A. (2010). *The challenge of sustaining democracy in deeply divided societies: Citizenship, rights, and ethnic conflicts in India and Israel*. Rowman and Littlefield; Lexington.

Hermann, T., Anabi, O., Kaplan, Y., & Sapozhnikova, I. O. (2022). *The Israeli democracy index*. Israel Democracy Institute.

Hijazi-Omari, H., & Ribak, R. (2008, 2015/10/01). Playing with fire: On the domestication of the mobile phone among Palestinian teenage girls in Israel. *Information, Communication & Society, 11*(2), 149-166. http://dx.doi.org/10.1080/13691180801934099

Jamal, A. (2020). *Reconstructing the civic: Palestinian civil activism in Israel*. SUNY Press.

Jamal, A. (2002). Beyond "ethnic democracy": State structure, multicultural conflict and differentiated citizenship in Israel. *New Political Science, 24*(3), 411-431. <https://doi.org/10.1080/0739314022000005437>

Kostelka, F., & Blais, A. (2021). The generational and institutional sources of the global decline in voter turnout. *World Politics, 73*(4), 629-667. https://doi.org/10.1017/S0043887121000149

Ohme, J. (2019a). Updating citizenship? The effects of digital media use on citizenship understanding and political participation. *Information, Communication & Society, 22*(13), 1903-1928. https://doi.org/10.1080/1369118X.2018.1469657

Ohme, J. (2019b). When digital natives enter the electorate: Political social media use among first-time voters and its effects on campaign participation. *Journal of Information Technology & Politics, 16*(2), 119-136. https://doi.org/10.1080/19331681.2019.1613279

Ohme, J., de Vreese, C. H., & Albæk, E. (2018a). From theory to practice: how to apply van Deth's conceptual map in empirical political participation research. *Acta Politica, 53*(3), 367-390. https://doi.org/https://doi.org/10.1057/s41269-017-0056-y

Ohme, J., de Vreese, C. H., & Albæk, E. (2018b). The uncertain first-time voter: Effects of political media exposure on young citizens' formation of vote choice in a digital media environment. *New Media & Society, 20*(9), 3243-3265. https://doi.org/10.1177/1461444817745017

Oser, J. (2017). Assessing how participators combine acts in their "political tool kits": A person-centered measurement approach for analyzing citizen participation. *Social Indicators Research, 133*(1), 235-258. http://dx.doi.org/10.1007/s11205-016-1364-8

Oser, J. (2022a). Protest as one political act in individuals' participation repertoires: Latent class analysis and political participant types. *American Behavioral Scientist, 66*(4), 510–532. https://doi.org/10.1177/00027642211021633

Oser, J. (2022b). The effectiveness of different forms of political participation. In M. Giugni & M. Grasso (Eds.), *The Oxford Handbook of Political Participation*. Oxford University Press.

Oser, J., & Boulianne, S. (2020). Reinforcement effects between digital media use and political participation: A meta-analysis of repeated-wave panel data. *Public Opinion Quarterly, 84*(S1), 355-365. https://doi.org/10.1093/poq/nfaa017

Oser, J., & Galnoor, I. (2016). Policy analysis evolution in Israel: Building administrative capacities. In G. Menahem & A. Zehavi (Eds.), *Policy analysis in Israel* (pp. 37-54). Policy Press.

Paxton, P., Hipp, J. R., Marquart-Pyatt, S., & Marquart-Pyatt, S. T. (2011). *Nonrecursive models: Endogeneity, reciprocal relationships, and feedback loops* (Vol. 168). Sage Publications.

Peled, Y. (2013). *The challenge of ethnic democracy: the state and minority groups in Israel, Poland and Northern Ireland*. Routledge.

Pew Research Centre. (2011). *Global digital communication: Texting, social networking popular worldwide*. Pew Global Attitudes Project. http://www.pewglobal.org/files/2011/12/Pew-Global-Attitudes-Technology-Report-FINAL-December-20-2011.pdf

Quintelier, E., & Hooghe, M. (2012). Political attitudes and political participation: A panel study on socialization and self-selection effects among late adolescents. *International Political Science Review, 33*(1), 63-81. https://doi.org/10.1177/0192512111412632

Quintelier, E., & van Deth, J. W. (2014). Supporting democracy: Political participation and political attitudes. Exploring causality using panel data. *Political Studies, 62(S1)*, 153-171. https://doi.org/http://dx.doi.org/10.1111/1467-9248.12097

Schnaudt, C., van Deth, J. W., Zorell, C., & Theocharis, Y. (In press). Revisiting norms of citizenship in times of democratic change. *Politics*. https://doi.org/10.1177/02633957211031799

Shehata, A., Ekström, M., & Olsson, T. (2016). Developing self-actualizing and dutiful citizens: Testing the AC-DC model using panel data among adolescents. *Communication Research, 43*(8), 1141–1169. https://doi.org/10.1177/0093650215619988

Shihade, M. (2015). Voting as a manifestation of collective interest: Arab voters in the 2013 elections. In M. Shamir (Ed.), *The Elections in Israel, 2013* (pp. 181-204). Transaction Publishers.

Smith, T. W. (1999). Aristotle on the conditions for and limits of the common good. *American Political Science Review, 93*(3), 625-636. https://doi.org/10.2307/2585578

Theocharis, Y., & van Deth, J. W. (2018). The continuous expansion of citizen participation. *European Political Science Review, 10*(1), 139-163. https://doi.org/https://doi.org/10.1017/S1755773916000230

Thompson, C. G., Kim, R. S., Aloe, A. M., & Becker, B. J. (2017). Extracting the variance inflation factor and other multicollinearity diagnostics from typical regression results. *Basic and Applied Social Psychology, 39*(2), 81-90. <https://doi.org/10.1080/01973533.2016.1277529>

Verba, S. (2015). The 50th anniversary of "The civic culture". *German Politics, 24*(3), 234-248. http://dx.doi.org/10.1080/09644008.2015.1021794

Vráblíková, K. (2014). How context matters? Mobilization, political opportunity structures, and nonelectoral political participation in old and new democracies. *Comparative Political Studies, 47*(2), 203-229. https://doi.org/10.1177/0010414013488538

Xenos, M., Vromen, A., & Loader, B. D. (2014). The great equalizer? Patterns of social media use and youth political engagement in three advanced democracies. *Information, Communication & Society, 17*(2), 151-167. https://doi.org/http://dx.doi.org/10.1080/1369118X.2013.871318

Yeager, D. S., Krosnick, J. A., Chang, L., Javitz, H. S., Levendusky, M. S., Simpser, A., & Wang, R. (2011). Comparing the accuracy of RDD telephone surveys and Internet surveys conducted with probability and non-probability samples. *Public Opinion Quarterly, 75*(4), 709-747. http://dx.doi.org/10.1093/poq/nfr020

A person wearing glasses

Description automatically generated with low confidence**About the Author**

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