Appendix

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

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SECTION 1: Survey, variable, and index documentation

Survey questions were adapted from several standard cross-national survey instruments, including the European Social Survey (ESS) and the International Social Survey Programme (ISSP). An additional source for question wording was the survey analyzed in Theocharis and van Deth (2018). Index reliability measures are based on analyses limited to the maximum valid n for analysis. Consistent with the multivariate analyses reported in the article, index reliability measures are documented for Wave 2 for the nonelectoral participation variable, and all other index reliability measures are documented for Wave 1 indices. See replication files (Oser 2022c) for additional information on variable recodes and dimensional analysis.

Nonelectoral participation

"I'll now read out some different political and social action that people sometimes take.
In the past 12 months did you do any of these things?"

- Signed a petition
- Bought or boycotted certain products for political, ethical or environmental reasons
- Took part in a demonstration (any kind of demonstration)
- Attended a political meeting or rally
- Contacted, or attempted to contact, a politician or a civil servant to express your views
- Donated money or raised funds for a social or political activity
- Worked in a political party or action group

One factor with an eigenvalue above 1 (eigenvalue F1 = 1.854)
Cronbach's alpha for non-electoral participation 7-item scale: 0.615

Vote

"Did you vote in the last national election in [Date]?"

1 Yes
2 No
3 I did not have the right to vote in the last elections

-For Wave 1, relevant date is March 2015; For Wave 2, relevant date for analysis is September 2019
-Dimensional analysis for nonelectoral participation + vote: results still support retaining a single factor with an eigenvalue of 1.863; but factor loading for vote (0.0885) is much lower than the next lowest value (political consumerism = 0.316), and all other items have factor loadings between 0.313 and 0.486. See replication file for additional detail.

Good citizenship norms

"There are different opinions as to what it takes to be a good citizen. In your opinion, to be a good citizen how important are each of the following" [1. Not important at all 2. Not very important 3. Neither important nor unimportant 4. Fairly important 5. Very important]

- Always to vote in elections
- Never to try to evade taxes
- Always to obey laws and regulations
- To keep watch on the actions of government
- To be active in social or political associations
- To try to understand the reasoning of people with other opinions
- To choose products for political, ethical, or environmental reasons, even if they cost a bit more
- To help people in Israel who are worse off than yourself
- To help people in the rest of the world who are worse off than yourself

One factor with an eigenvalue above 1 (eigenvalue F1 = 1. 194)
Cronbach's alpha for good citizenship norms 9-item scale: 0.521

Social media political

"In the past 12 months did you do any of these things?"

- Posted or shared links on social media to political stories or articles that other people wrote or created
- Posted or shared your own ideas on social media, including comments or video, about political or social
- Encouraged other people to take action on a political or social issue using social media platforms

Cronbach's alpha for social media political: 0.655

Online news media

"On average, how often do you:" [1. Never 2. One day a week or less 3. Several days a week 4. Once every day 5. Several times a day]

- Use the Internet to get political news or information
- Receive news from friends or family through social network sites

Cronbach's alpha, average interitem covariance: 0.810

Education

"What is your education?"

1. Primary education or less
2. Secondary school, partial
3. Secondary school complete, WITHOUT a matriculation certificate
4. Secondary school complete, WITH a matriculation certificate
5. Beyond secondary school (seminar for teachers, nurse's school, school for engineers, post-high school yeshiva).
6. Lower tertiary degree (BA), partial
7. Complete lower tertiary degree (BA)
8. Complete higher tertiary degree (MA)

Income

"The average total income for an Israeli family today is about 15,000 NIS after taxes. Your household income is:"

1. Very below the average
2. A little below the average
3. About average
4. A little above the average
5. Very above the average

Internal efficacy

"To what degree do you agree with the following sentence: Most people in Israel are better informed about politics and government than you are."

1 Strongly disagree
2 Disagree
3 Neither agree nor disagree
4 Agree
5 Strongly agree

External efficacy

Have a say: "People like me don't have any say about what the government does"
Government cares: "I don't think the government cares much what people like me think"

1 Strongly disagree
2 Disagree

3 Neither agree nor disagree
4 Agree
5 Strongly agree

Influence: “How much would you say that the political system in Israel allows people like you to have an influence on politics?”

1 Not at all
2 Very little
3 Some
4 A lot
5 A great deal

Cronbach’s alpha for external efficacy: 0.583

Political interest

"In general, how interested are you in politics?”

1 Very interested
2 Fairly interested
3 Not very interested
4 Not at all interested

Jew/Arab

0 Jew
1 Arab

Identification of the respondent as Jewish or Arab was conducted using standard protocols developed by the BI Cohen Institute. All respondents who answer the telephone in Arabic are coded as ethnic Arabs. For respondents who answer in Hebrew, they are categorized as ethnic Arabs if they report their religion as Muslim or Druze. For respondents who speak in Hebrew but report their religion as Christian, additional socio-demographic markers are used to identify whether the respondent is an ethnic Jew or Arab such as year of “aliya,” an immigration status afforded to ethnic Jews but not Arabs.

Index documentation

SECTION 2: Summary of sample characteristics

The following tables document the survey's sample characteristics on the key socio-demographic variables of education, gender, and age for both waves of the survey analyzed in the article's multivariate regression analysis in comparison to population statistics. Regarding region, the sampling frame was designed to be representative of geographic regions, but privacy regulations preclude a full empirical report on this parameter. As note in the article, although the sample is too small to create a multivariate weighting variable, we created a weighting variable for education due to the theoretical importance of this socio-demographic characteristic in the current study. The article reports on analyses that apply the education weight variable, and the replication files document that there is no substantive difference between the weighted and unweighted findings.

WAVE 1				
Education level	% Jew pop.	**% Jew sample**	% Arab pop.	**% Arab sample**
1. Primary and some secondary	28.8	**15.5**	44.2	**29.9**
2. Secondary with matriculation and beyond	35.7	**39.4**	34.5	**26.5**
3. Complete BA+	35.5	**45.1**	21.3	**43.6**

Gender	% Jew pop.	**% Jew sample**	% Arab pop.	**% Arab sample**
Women	51.5	**49.4**	49.9	**59.8**
Men	48.5	**50.6**	50.1	**40.2**

Age	% Jew pop.	**% Jew sample**	% Arab pop.	**% Arab sample**
18-29	23.1	**11.0**	36.1	**25.6**
30-49	36.8	**36.2**	38.7	**42.7**
50-59	13.7	**21.7**	13.2	**17.1**
60+	26.5	**31.1**	12.1	**14.5**

WAVE 2				
Education level	% Jew pop.	**% Jew sample**	% Arab pop.	**% Arab sample**
1. Primary and some secondary	28.8	**17.2**	44.2	**30.8**
2. Secondary with matriculation and beyond	35.7	**37.1**	34.5	**23.9**
3. Complete BA+	35.5	**45.7**	21.3	**45.3**

Gender	% Jew pop.	**% Jew sample**	% Arab pop.	**% Arab sample**
Women	51.5	**49.3**	49.9	**59.8**
Men	48.5	**50.8**	50.1	**40.2**

Age	% Jew pop.	**% Jew sample**	% Arab pop.	**% Arab sample**
18-29	23.1	**9.0**	36.1	**20.5**
30-49	36.8	**36.4**	38.7	**47.9**
50-59	13.7	**20.7**	13.2	**14.5**
60+	26.5	**33.9**	12.1	**17.1**

SECTION 3: Supplementary findings

Table A1. Correlation matrices

Table A1a. Non-electoral participation (NEP)

	NEP W2	Female	Age	Educ.	Income	Arab (ref: Jew)	Internal efficacy	External efficacy	Pol. interest	Online news	Soc. med. pol.	Norms
NEP W2	1.000											
Female	-0.011	1.000										
Age	-0.049	0.077	1.000									
Education	0.236	0.019	-0.119	1.000								
Income	0.096	-0.098	0.119	0.301	1.000							
Arab (ref: Jew)	-0.053	-0.077	-0.187	-0.107	-0.255	1.000						
Internal eff.	0.239	-0.106	-0.040	0.276	0.229	-0.120	1.000					
External eff.	0.057	-0.034	0.004	0.040	0.121	-0.078	0.056	1.000				
Pol. interest	0.209	-0.079	0.195	0.086	0.135	-0.050	0.249	0.129	1.000			
Online news	0.234	-0.103	-0.150	0.171	0.152	0.026	0.176	0.069	0.308	1.000		
Soc. med. pol.	0.356	-0.057	-0.094	0.166	0.057	-0.061	0.197	0.077	0.240	0.329	1.000	
Norms	0.166	0.159	0.208	-0.110	-0.014	-0.029	0.026	0.117	0.212	0.056	0.021	1.000

Table A1b. Vote

	Vote W2	Female	Age	Educ.	Income	Arab (ref: Jew)	Internal efficacy	External efficacy	Pol. interest	Online news	Soc. med. pol.	Norms
Vote W2	1.000											
Female	0.045	1.000										
Age	0.051	0.077	1.000									
Education	0.066	0.019	-0.119	1.000								
Income	0.124	-0.098	0.119	0.301	1.000							
Arab (ref: Jew)	-0.201	-0.077	-0.187	-0.107	-0.255	1.000						
Internal eff.	0.065	-0.106	-0.040	0.276	0.229	-0.120	1.000					
External eff.	0.109	-0.034	0.004	0.040	0.121	-0.078	0.056	1.000				
Pol. interest	0.108	-0.079	0.195	0.086	0.135	-0.050	0.249	0.129	1.000			
Online news	0.060	-0.103	-0.150	0.171	0.152	0.026	0.176	0.069	0.308	1.000		
Soc. med. pol.	0.066	-0.057	-0.094	0.166	0.057	-0.061	0.197	0.077	0.240	0.329	1.000	
Norms	0.069	0.159	0.208	-0.110	-0.014	-0.029	0.026	0.117	0.212	0.056	0.021	1.000

Note: n=716, maximum valid sample size for the fully specified regression analyses

Table A2. How citizenship norms and digital media use (W1) affect political participation (W2)
Parallel output to article Figure 3

	(1) Nonelectoral Partic. W2	(2) Vote W2
Female	-0.003	0.022
	(0.014)	(0.023)
Age	-0.000	-0.000
	(0.001)	(0.001)
Education	0.019***	-0.000
	(0.004)	(0.005)
Income	-0.002	0.012
	(0.006)	(0.010)
Arab (ref: Jew)	0.002	-0.125**
	(0.023)	(0.043)
Internal efficacy	0.018*	0.012
	(0.008)	(0.011)
External efficacy	-0.006	0.029*
	(0.009)	(0.012)
Political interest	0.013	0.021
	(0.009)	(0.017)
Online news media W1	0.011	0.007
	(0.006)	(0.009)
Social media political W1	0.188***	-0.009
	(0.033)	(0.034)
Norms W1	0.065***	0.005
	(0.015)	(0.030)
Constant	-0.299***	0.696***
	(0.069)	(0.141)
Observations	716	716
Adjusted R^2	0.213	0.054

Note: Entries are non-standardized coefficients with standard errors in parentheses for linear regression models. The table provides parallel results to those reported in Figure 3 in the article. Independent variables and control variables are measured in Wave 1; dependent variables are measured in Wave 2. Sample is limited to maximal identical observations for both models (n=716). * p<0.050, ** p<0.010, *** p<0.001.

Table A3. Interactive effect of citizenship norms and media use variables on political participation

	(1) NEP W1	(2) NEP W2	(3) NEPW1	(4) NEPW2	(5) Vote W1	(6) Vote W2	(7) Vote W1	(8) Vote W2
Female	-0.005	-0.005	-0.003	-0.004	0.013	0.020	0.015	0.023
	(0.015)	(0.015)	(0.015)	(0.014)	(0.025)	(0.023)	(0.024)	(0.023)
Age	-0.001	-0.000	-0.001	-0.000	0.002*	-0.000	0.002*	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.018***	0.020***	0.018***	0.020***	0.014*	-0.000	0.014*	-0.000
	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.005)	(0.006)	(0.005)
Income	-0.003	-0.001	-0.004	-0.002	0.018	0.012	0.019	0.012
	(0.006)	(0.006)	(0.006)	(0.006)	(0.011)	(0.010)	(0.011)	(0.010)
Arab (ref: Jew)	0.011	0.005	0.003	0.001	-0.189***	-0.123**	-0.186***	-0.124**
	(0.022)	(0.023)	(0.022)	(0.023)	(0.050)	(0.044)	(0.050)	(0.044)
Internal efficacy	0.014	0.018*	0.013	0.018*	0.016	0.012	0.016	0.012
	(0.007)	(0.008)	(0.007)	(0.008)	(0.012)	(0.011)	(0.012)	(0.011)
External efficacy	0.002	-0.006	-0.001	-0.006	0.033*	0.029*	0.036*	0.030*
	(0.009)	(0.009)	(0.009)	(0.009)	(0.014)	(0.012)	(0.014)	(0.012)
Political interest	0.028**	0.014	0.027**	0.013	0.028	0.021	0.027	0.021
	(0.009)	(0.009)	(0.008)	(0.009)	(0.018)	(0.017)	(0.018)	(0.017)
Online news media W1	-0.089*	-0.056	0.011	0.011	-0.042	-0.060	-0.014	0.007
	(0.044)	(0.043)	(0.007)	(0.006)	(0.107)	(0.079)	(0.012)	(0.009)
Norms W1	0.003	0.026	0.025	0.054**	0.026	-0.034	0.080*	0.015
	(0.027)	(0.028)	(0.016)	(0.017)	(0.068)	(0.064)	(0.038)	(0.037)
Online news media W1 # Norms W1	0.024*	0.016			0.007	0.016		
	(0.011)	(0.010)			(0.025)	(0.019)		
Social media political W1	0.188***	0.189***	-0.569**	-0.052	-0.032	-0.008	0.775	0.198
	(0.031)	(0.033)	(0.212)	(0.237)	(0.040)	(0.034)	(0.398)	(0.319)
Social media political W1 # Norms W1			0.184***	0.058			-0.197*	-0.050
			(0.053)	(0.058)			(0.099)	(0.079)
Constant	-0.048	-0.144	-0.128	-0.251***	0.437	0.851**	0.212	0.655***
	(0.111)	(0.111)	(0.078)	(0.075)	(0.287)	(0.262)	(0.179)	(0.175)
Observations	716	716	716	716	716	716	716	716
Adjusted R^2	0.212	0.214	0.222	0.213	0.149	0.054	0.158	0.053

Standard errors in parentheses; * p<0.05, ** p<0.010, *** p<0.001. Notes: Although the question of whether the key independent variables have an interactive effect on political participation is not a theoretical focus of the current study, previous research has identified interactive effects (e.g., Copeland & Feezell, 2017; Ohme, 2019a). The results in Table A3 show that even though some interaction terms are statistically significant in the cross-sectional analysis, none remain significant when the political participation measures (the dependent variables) are measured in Wave 2. As noted in the article's conclusion, the lack of statistical significance for the interaction terms may be a result of the relatively small sample size in the current study, and therefore does not discount prior findings on this topic. Rather, these results confirm that the main effects examined in the current study remain robust when including interaction terms between the key independent variables.

Table A4. Interaction between Jewish/Arab ethnic identity and independent variables on NEP

	(1)	(2)	(3)	(4)
Female	-0.003	-0.003	-0.003	-0.003
	(0.014)	(0.014)	(0.014)	(0.014)
Age	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.019***	0.019***	0.019***	0.019***
	(0.004)	(0.004)	(0.004)	(0.004)
Income	-0.002	-0.002	-0.002	-0.002
	(0.006)	(0.006)	(0.006)	(0.006)
Internal efficacy	0.018*	0.018*	0.018*	0.018*
	(0.008)	(0.008)	(0.008)	(0.008)
External efficacy	-0.006	-0.006	-0.005	-0.005
	(0.009)	(0.009)	(0.009)	(0.009)
Political interest	0.013	0.013	0.013	0.013
	(0.009)	(0.009)	(0.009)	(0.009)
Online news media W1	0.011	0.010	0.011	0.011
	(0.006)	(0.007)	(0.006)	(0.006)
Social media political W1	0.188***	0.188***	0.184***	0.187***
	(0.033)	(0.033)	(0.035)	(0.033)
Good citizen norms W1	0.065***	0.065***	0.065***	0.060***
	(0.015)	(0.015)	(0.015)	(0.018)
Arab (ref: Jew)	0.002	-0.013	-0.003	-0.072
	(0.023)	(0.044)	(0.025)	(0.128)
Arab x Online news W1		0.006		
		(0.014)		
Arab x Social media political W1			0.031	
			(0.093)	
Arab x Norms W1				0.018
				(0.032)
Constant	-0.299***	-0.297***	-0.295***	-0.278***
	(0.069)	(0.069)	(0.070)	(0.079)
Observations	716	716	716	716
Adjusted R^2	0.204	0.203	0.202	0.203

Note: Entries are linear regression results with standard errors in parentheses. Independent variables and control variables are measured in Wave 1; dependent variables are measured in Wave 2. Sample limited to maximal identical observations for both models (n=716). * p<0.050, ** p<0.010, *** p<0.001.

Table A5. Interaction between Jewish/Arab ethnic identity and independent variables on Vote

	(1)	(2)	(3)	(4)
Female	0.022	0.022	0.022	0.022
	(0.023)	(0.022)	(0.023)	(0.023)
Age	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Education	-0.000	-0.001	-0.000	-0.000
	(0.005)	(0.005)	(0.005)	(0.005)
Income	0.012	0.011	0.011	0.012
	(0.010)	(0.010)	(0.010)	(0.010)
Internal efficacy	0.012	0.012	0.012	0.012
	(0.011)	(0.011)	(0.011)	(0.011)
External efficacy	0.029*	0.030*	0.030*	0.030*
	(0.012)	(0.012)	(0.012)	(0.012)
Political interest	0.021	0.020	0.020	0.020
	(0.017)	(0.017)	(0.017)	(0.018)
Online news media W1	0.007	0.001	0.007	0.008
	(0.009)	(0.009)	(0.009)	(0.010)
Social media political W1	-0.009	-0.010	-0.020	-0.011
	(0.034)	(0.034)	(0.034)	(0.035)
Good citizen norms W1	0.005	0.007	0.004	-0.013
	(0.030)	(0.029)	(0.030)	(0.025)
Arab (ref: Jew)	-0.125**	-0.206*	-0.142**	-0.383
	(0.043)	(0.092)	(0.052)	(0.346)
Arab x Online news W1		0.031		
		(0.028)		
Arab x Social media political W1			0.091	
			(0.136)	
Arab x Norms W1				0.063
				(0.084)
Constant	0.696***	0.707***	0.707***	0.766***
	(0.141)	(0.138)	(0.141)	(0.132)
Observations	716	716	716	716
Adjusted R^2	0.054	0.056	0.054	0.055

Note: Entries are linear regression results with standard errors in parentheses. Independent variables and control variables are measured in Wave 1; dependent variables are measured in Wave 2. Sample limited to maximal identical observations for both models (n=716). * p<0.050, ** p<0.010, *** p<0.001.