

Appendix

Table 1. OLS regression estimates predicting campaign sophistication on Meta platforms (federal candidates)

Dependent variable: sophistication index

	(1)	(2)
Senate	0.019*** (0.002)	0.024*** (0.004)
Race competitiveness	0.006*** (0.001)	0.005*** (0.001)
Democratic	0.007*** (0.002)	0.013*** (0.003)
Third party	-0.004 (0.004)	-0.000 (0.012)
TV ad spending (logged)		0.001 (0.001)
Image	0.007*** (0.002)	0.010*** (0.003)
Intercept	-0.006*** (0.002)	-0.026** (0.010)
Observations	1022	537
R ²	0.159	0.191
Adjusted R ²	0.154	0.182
Residual Std. Error	0.026 (df=1016)	0.032 (df=530)
F Statistic	38.308*** (df=5; 1016)	20.881*** (df=6; 530)
Note:	*p<0.1; **p<0.05; ***p<0.01	

Notes: Model 2 only analyzed the subset of candidates who invested in TV ads.

Table 2. OLS estimates predicting campaign sophistication on Meta platforms (all House and Senate race sponsors)

Dependent variable: sophistication index

	(1)	(2)
Senate	0.005***	0.024***
	(0.001)	(0.003)
Party	-0.009***	-0.000
	(0.001)	(0.000)
Group	-0.009***	-0.014
	(0.000)	(0.015)
Other sponsor type	-0.006***	-0.014***
	(0.001)	(0.005)
Race competitiveness	0.001***	0.004***
	(0.000)	(0.001)
Democratic	0.001***	0.012***
	(0.000)	(0.003)
Third party	-0.002	-0.001
	(0.002)	(0.011)
TV ad spending (logged)		0.001
		(0.001)

Image	0.001*	0.010***
	(0.000)	(0.003)
Intercept	0.006***	-0.021**
	(0.001)	(0.009)
Observations	4284	593
R ²	0.105	0.199
Adjusted R ²	0.103	0.188
Residual Std. Error	0.014 (df=4275)	0.031 (df=584)
F Statistic	62.457*** (df=8; 4275)	18.101*** (df=8; 584)

Note: *p<0.1; **p<0.05; ***p<0.01

Notes: 1) Model 2 only analyzed the subset of sponsors who invested in TV ads. 2) Ads placed by non-campaign sponsors such as national parties and groups were included separately for each race where they sponsored ads. 3) “Other sponsors” include government offices and coordinated efforts between a group and campaign or party.

Table 3. OLS estimates predicting campaign sophistication on Google platforms (candidates)

<i>Dependent variable: sophistication index</i>		
	(1)	(2)
Senate	0.034***	0.029***
	(0.005)	(0.007)
Race competitiveness	0.007***	0.006***
	(0.002)	(0.002)
Democratic	0.010**	0.011**
	(0.004)	(0.005)

Third party	0.048 ^{***}	-0.008
	(0.017)	(0.027)
TV ad spending (logged)		0.005 ^{***}
		(0.002)
Video	0.026 ^{***}	0.045 ^{***}
	(0.009)	(0.013)
Image	0.011 ^{***}	0.013 ^{**}
	(0.004)	(0.005)
Intercept	-0.011 [*]	-0.078 ^{***}
	(0.005)	(0.023)
Observations	430	315
R ²	0.165	0.194
Adjusted R ²	0.153	0.175
Residual Std. Error	0.042 (df=423)	0.045 (df=307)
F Statistic	13.964 ^{***} (df=6; 423)	10.543 ^{***} (df=7; 307)

Note: *p<0.1; **p<0.05; ***p<0.01

Notes: Model 2 only analyzed the subset of sponsors who invested in TV ads.

Table 4. OLS regression estimates predicting campaign sophistication on Google platforms (all sponsors of Senate and House races)

<i>Dependent variable: sophistication index</i>		
	(1)	(2)
Senate	0.013 ^{***}	0.015 ^{***}
	(0.002)	(0.003)

Party	-0.021***	0.014*
	(0.003)	(0.008)
Group	-0.020***	0.016**
	(0.002)	(0.007)
Other sponsor type	-0.014**	0.024**
	(0.006)	(0.011)
Race competitiveness	0.004***	0.003***
	(0.001)	(0.001)
Democratic	0.003*	0.004*
	(0.002)	(0.002)
Third party	0.047***	-0.010
	(0.012)	(0.019)
TV ad spending (logged)		0.004***
		(0.001)
Video	0.008***	0.014***
	(0.003)	(0.004)
Image	0.008***	0.010***
	(0.002)	(0.003)
Intercept	0.007***	-0.040***
	(0.003)	(0.009)

Observations	1120	743
R ²	0.157	0.205
Adjusted R ²	0.150	0.194
Residual Std. Error	0.029 (df=1110)	0.032 (df=732)
F Statistic	23.012*** (df=9; 1110)	18.866*** (df=10; 732)

Note: *p<0.1; **p<0.05; ***p<0.01

Notes: 1) Model 2 only analyzed the subset of sponsors who invested in TV ads. 2) Ads placed by non-campaign sponsors such as national parties and groups were included separately for each race where they sponsored ads. 3) “Other sponsors” include government offices and coordinated efforts between a group and campaign or party.