

Supplementary Material

Supporting materials include Tables 1-5 and References at the end.

Table 1. Summary of Data Types Collected for Policymakers in Treatment Group (N = 140).

Data Type	Number of Policymakers	Number of Tweets or Meeting Transcripts
Tweets (3-months pre to post intervention)	139	70,391
Climate change-related Tweets (3-months pre to post intervention)	139	2593
Committee Meeting Text (1-year pre to post intervention)	95	661
Sociodemographic and Constituency Information	140	

Table 2. Summary of Data Types Collected for Policymakers in Control Group (N = 140).

Data Type	Number of Policymakers	Sample Size of Texts (ie tweets)
Tweets (3-months pre to post intervention of matched treated policymaker)	116	31,380
Climate change-related Tweets (3-months pre to post intervention)	116	736
Sociodemographic and Constituency Information	140	

Table 3. Results from Independent Samples T-tests Comparing Pre- to Post-Intervention Sentiment Measures of Climate-related Tweets (N=2593) from Treatment Group (N=139).

Measure	Pre Mean	Post Mean	p-value
Frequency of cc-related ¹ tweets	0.031	0.0267	>0.05
Analytic Terms (terms related to logical and formal thinking)	74.0	77.0	0.0007**
Politics-related Terms (i.e., united states, congress, senate)	1.9	2.4	<0.0001***
Money-related Terms (i.e., business, pay, price, market)	1.1	1.5	<0.0001***
Reward Motive Terms (i.e., opportunity, win, gain, benefit)	0.16	0.26	0.002**
Insight-oriented Terms (i.e., know, how, think, feel)	1.6	1.6	>0.05
Emotional Tone (i.e., higher value means more positive tone)	27.8	29.4	>0.05
Future-oriented Terms	1.6	1.4	>0.05

¹ Note that 'cc-related' refers to climate change-related.

Table 4. Comparison of Results from Two Diff-in-Diff Linear Regression Models Estimating Effect of Intervention Treatment on Climate-related Tweet Rate, with Model 1 Including No Other Independent Variables and Model 2 Including Binary Variables for Gender, Party, and Race.

Variable / Value Types	Model 1	Model 2
Intercept		
Beta Parameter Estimate (B0)	0.0213	0.0286
Standard Error	0.00368	0.00408
p-value	<0.001***	<0.001***
Treat – Treatment Group (B1)		
Beta Parameter Estimate	0.0109	0.0101
Standard Error	0.004	0.00484
p-value	0.0287*	0.038*
Post – Post-intervention (B2)		
Beta Parameter Estimate	0.00120	0.00116
Standard Error	0.00520	0.00506
p-value	0.818	0.819
Treat:Post – DID Interaction Variable (B3) (post-intervention tweets in treatment group)		
Beta Parameter Estimate	-0.00480	-0.00473
Standard Error	0.00702	0.00684
p-value	0.495	0.490
Is_Female (B4)		
Beta Parameter Estimate		-0.00257
Standard Error		0.00385
p-value		0.505
Is_Republican (B5)		
Beta Parameter Estimate		-0.0225
Standard Error		0.00410
p-value		<0.001***
Is_NonWhite (B6)		
Beta Parameter Estimate		-0.0073
Standard Error		0.00684
p-value		0.545
Global Model		
Residual Standard Error	0.0393 on 502 DF	0.03827 on 499 DF
Adjusted R-squared	0.006886	0.05883
F-statistic	2.167 on 3 and 502 DF	6.261 on 6 and 499 DF
p-value	0.091	< 0.001***

Table 5. Sample of Climate Change-related Tweets with High Analytic Tone and Tweets with High Reward-motivated Terms.

Text	Analytic	Reward-motivated	Emotional Tone
From committing to 100 percent renewable energy, to embracing a carbon neutral economy, Hawaii has taken aggressive action to combat climate change because of the threat it poses to our way of life.	99	0	1
The process of withdrawing from the Paris climate agreement begins today. The process of returning begins on election day next year.	99	0	1
The transportation sector accounts for nearly 30% of the carbon emissions. Electric vehicles are of critical importance for reduction of greenhouse gases. The US cannot afford to get behind in innovation and technology.	99	0	20.23
Grateful for this opportunity to see firsthand the opportunities we have to protect #Florida and the rest of our beautiful country through our work at the Select Committee on the @ClimateCrisis.	98.94	5.56	99
Climate change is intensifying inequality, but fighting it is an historic opportunity to deliver economic justice for all, especially the most vulnerable. Creating a truly healthy, livable planet requires commitment to both goals. They are inseparable.	81.21	4.88	58.42
With this training infrastructure, students + trade workers will gain the skills and knowledge necessary to be a part of the growing sector of Massachusetts' nation-leading clean energy industry and can take advantage of the highly-skilled jobs created by this emerging industry.	95.99	4.35	20.23

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