

Comparing Internet control and disinformation across regime types during and after the Covid-19 crisis

Appendix

Table of contents

Appendix A: Main analyses	5
Appendix B: Robustness checks	36
Appendix C: Analysis on disinformation - Pandemic Backsliding Dataset	62

Appendix A

Freedom on the Net Reports.....	5
1.1 Bivariate distribution of FOTN and EIU scores 2023.....	5
1.2 Bivariate distribution of FOTN Limits on content and EIU scores 2023	6
2.1 FOTN scores 2023 per country and regime type.....	7
2.2 FOTN Limits on content scores 2023 per country and regime type.....	7
3.1 Mean FOTN scores per regime type over time	8
3.2 Mean FOTN Limits on content scores per regime type over time	8
V-Dem Data.....	9
4.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EIU democracy score 2020.....	10
4.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EIU democracy score 2020	11
4.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EIU democracy score 2020	12
4.4 Bivariate distribution of V-Dem Government Internet shut down in practice and (v2smgovshut) and EIU democracy score 2020	13
4.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EIU democracy score 2020	14
4.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EIU democracy score 2020	15
4.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EIU democracy score 2020	16
5.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EIU democracy score 2023.....	17
5.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EIU democracy score 2023	18

5.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EIU democracy score 2023	19
5.4 Bivariate distribution of V-Dem Government Internet shut down in practice and (v2smgovshut) and EIU democracy score 2023	20
5.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EIU democracy score 2023	21
5.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EIU democracy score 2023	22
5.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EIU democracy score 2023	23
6.1 Evolution of mean values of V-Dem Internet legal content (v2smregcon) per regime type for the period 2006–2023 according to the EIU Democracy status	24
6.2 Evolution of mean values of V-Dem Internet censorship effort (v2mecenefi) per regime type for the period 2006–2023 according to the EIU Democracy status	24
6.3 Evolution of mean values of V-Dem Government social media censorship (v2smgovsmcenprc) per regime type for the years 2006–2023 according to the EIU Democracy status.....	25
6.4 Evolution of mean values V-Dem Government Internet shut down in practice (v2smgovshut) per regime time in the years 2006–2023 according to the EIU Democracy status	25
6.5 Evolution of mean values of V-Dem Government social media shutdown (v2smgovsm) per regime type in the years 2006–2023 according to the EIU Democracy status	26
6.6 Evolution of mean values of V-Dem Government dissemination of false information domestic (v2smgovdom) per regime type for the years 2006–2023 according to the EIU Democracy status ..	26
6.7 Evolution of mean values V-Dem Government dissemination of false information abroad (v2smgovab) per regime type for the years 2006–2023 according to the EIU Democracy status	27
7.1 Top 30 countries with biggest decreases of assessemnts for (v2smregcon): Legal internet regulation content 2019-2020 and 2022-2023	27
7.2 Top 30 countries with biggest decreases of assessemnts for (v2mecenefi): Internet censorship effort 2019-2020 and 2022-2023	28
7.3 Top 30 countries with biggest decreases of assessemnts for (v2smgovsmcenprc): Government social media censorship in practice 2019-2020 and 2022-2023.....	28
7.4 Top 25 countries with strongest increases of Internet control from 2019 to 2023	30
Transparency Report Data	35
8 Evolution of Twitter removal requests per regime type for the years 2012–2021	35
Freedom on the Net Reports.....	36

Appendix B

9.1 Bivariate distribution of FOTN and EDI scores 2023	36
9.2 Bivariate distribution of FOTN Limits on content and EDI scores 2023	37
V-Dem Data.....	39
10.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EDI score 2020	39
10.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EDI score 2020	41

10.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EDI score 2020	42
10.4 Bivariate distribution of V-Dem Government Internet shut down in practice and (v2smgovshut) and EDI score 2020	44
10.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EDI score 2020	45
10.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EDI score 2020.....	47
10.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EDI score 2020.....	49
11.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EDI score 2023	50
11.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EDI score 2023	52
11.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EDI score 2023	54
11.4 Bivariate distribution of V-Dem Government Internet shut down in practice (v2smgovshut) and EDI score 2023	55
11.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EDI score 2023	57
11.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EDI score 2023.....	59
11.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EDI score 2023	60

Appendix C

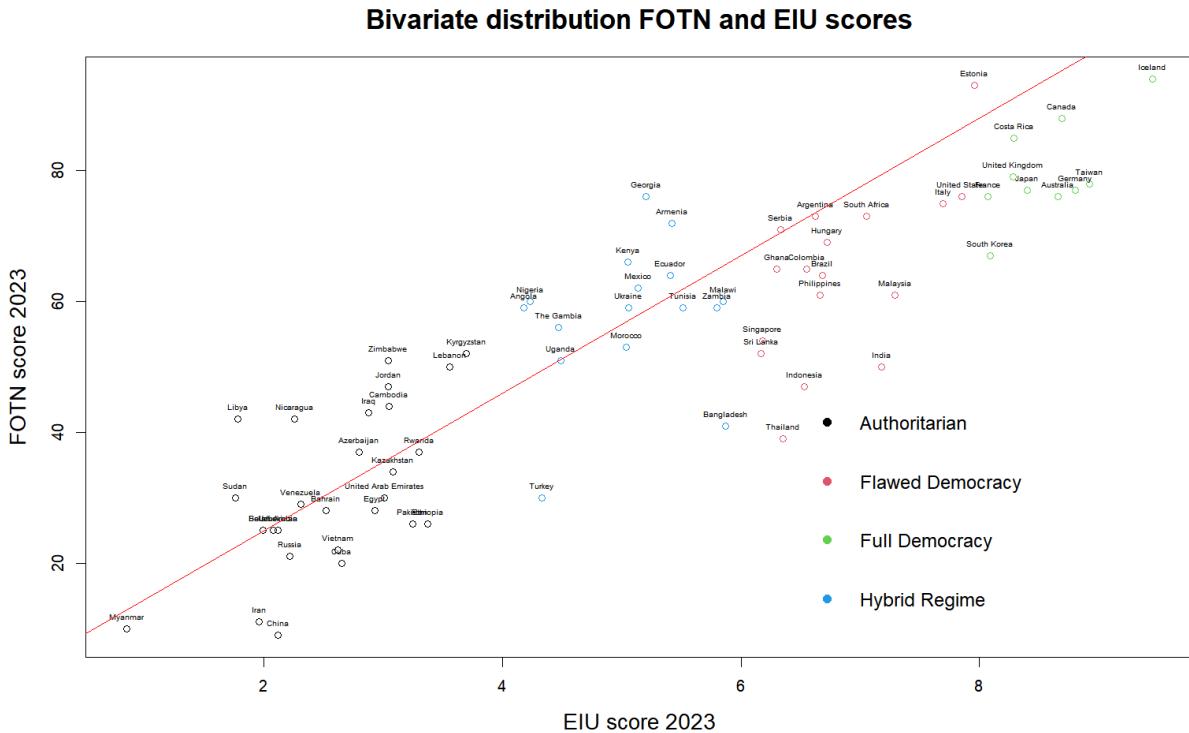
PanDem Data	62
12.1 Bivariate distribution of The Pandemic Violations of Democratic Standards Index (PanDem) and EDI score 2021	63
12.2 Bivariate distribution of PanDem type 6 (Official disinformation campaigns) and EDI score 2021	64
12.3 Bivariate distribution of PanDem type 7 (Restrictions on Media freedom) and EDI score 2021	65
12.4 Bivariate distribution of PanDem type 6 Component indicator government disinformation (govdis) and EDI score 2021.....	66
12.5 Bivariate distribution of PanDem type 7 Component indicator De jure Restrictions on media (melim) and EDI score 2021	67
12.6 Bivariate distribution of PanDem type 7 Component indicator Limitations on media reporting about Covid-19 (merepfact) and EDI score 2021	69
12.7 Bivariate distribution of PanDem type 7 Component indicator Limitations on media reporting about the government response to Covid-19 (merepgov) and EDI score 2021	70
12.8 Bivariate distribution of PanDem type 7 Component indicator Limitations on media reporting about non-Covid-19 related news (mereporth) and EDI score 2021.....	71

12.9 Bivariate distribution of PanDem type 7 Component indicator Limitations on access to information (meinf) and EDI score 2021	72
12.10 Bivariate distribution of PanDem type 7 Component indicator Verbal harassment of journalists (mevhar) and EDI score 2021	73
12.11 Bivariate distribution of PanDem type 7 Component indicator Physical harassment of journalists (mephar) and EDI score 2021	75
References	76

Appendix A

Freedom on the Net Reports

1.1 Bivariate distribution of FOTN and EIU scores 2023



Call:

```
lm(formula = foton_2023 ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-25.3982	-5.5228	0.4935	7.4431	19.3853

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	3.8919	5.6845	0.685	0.496
democracy_index	10.5184	2.0585	5.110	3.05e-06 ***
regimeFlawed Democracy	-11.7326	9.2273	-1.272	0.208
regimeFull Democracy	-14.2821	12.8103	-1.115	0.269
regimeHybrid Regime	0.7633	5.9558	0.128	0.898

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

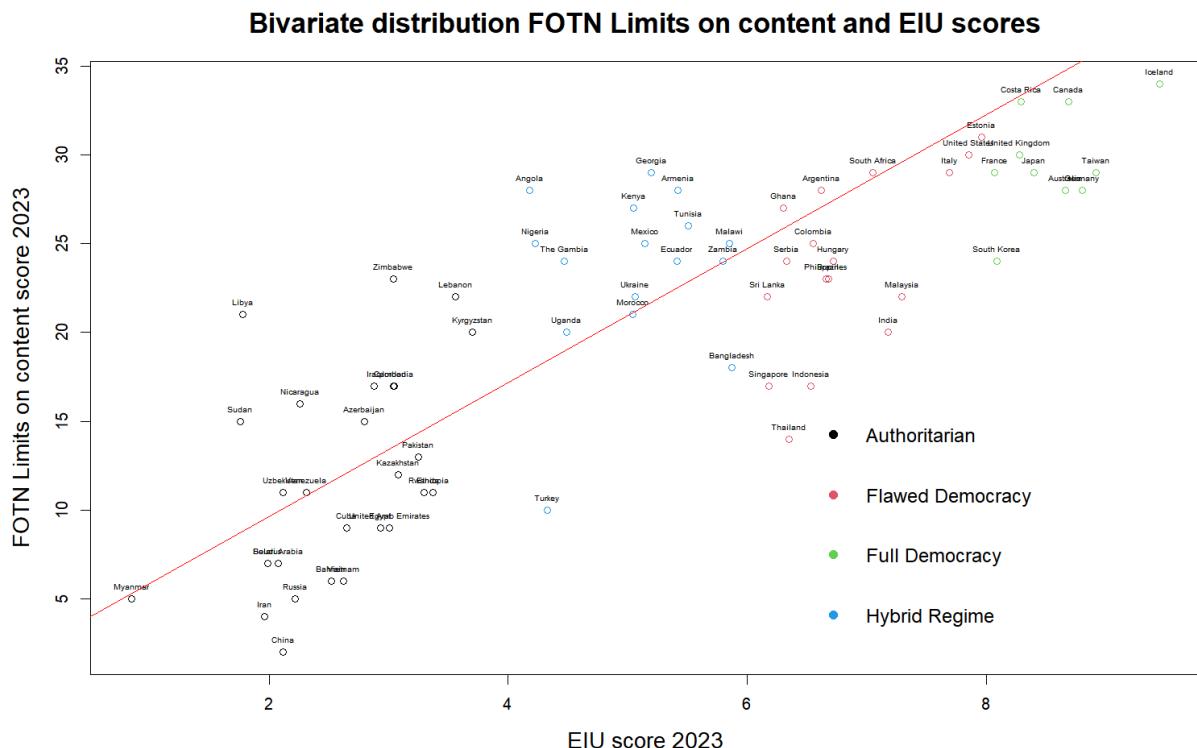
Residual standard error: 9.897 on 65 degrees of freedom

Multiple R-squared: 0.7961, Adjusted R-squared: 0.7835

F-statistic: 63.43 on 4 and 65 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.880244396082597"

1.2 Bivariate distribution of FOTN Limits on content and EIU scores 2023



call:

```
lm(formula = fotn_B*_2023 ~ democracy_index + regime, data = df)
```

Residuals:

Min 1Q Median 3Q Max
-10.7248 -3.0329 0.0673 3.1007 12.2116

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.0731	2.6236	0.790	0.432301	
democracy_index	3.7726	0.9501	3.971	0.000182	***
regimeFlawed Democracy	-4.0165	4.2588	-0.943	0.349115	
regimeFull Democracy	-4.6855	5.9124	-0.792	0.430962	
regimeHybrid Regime	2.3163	2.7488	0.843	0.402526	

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

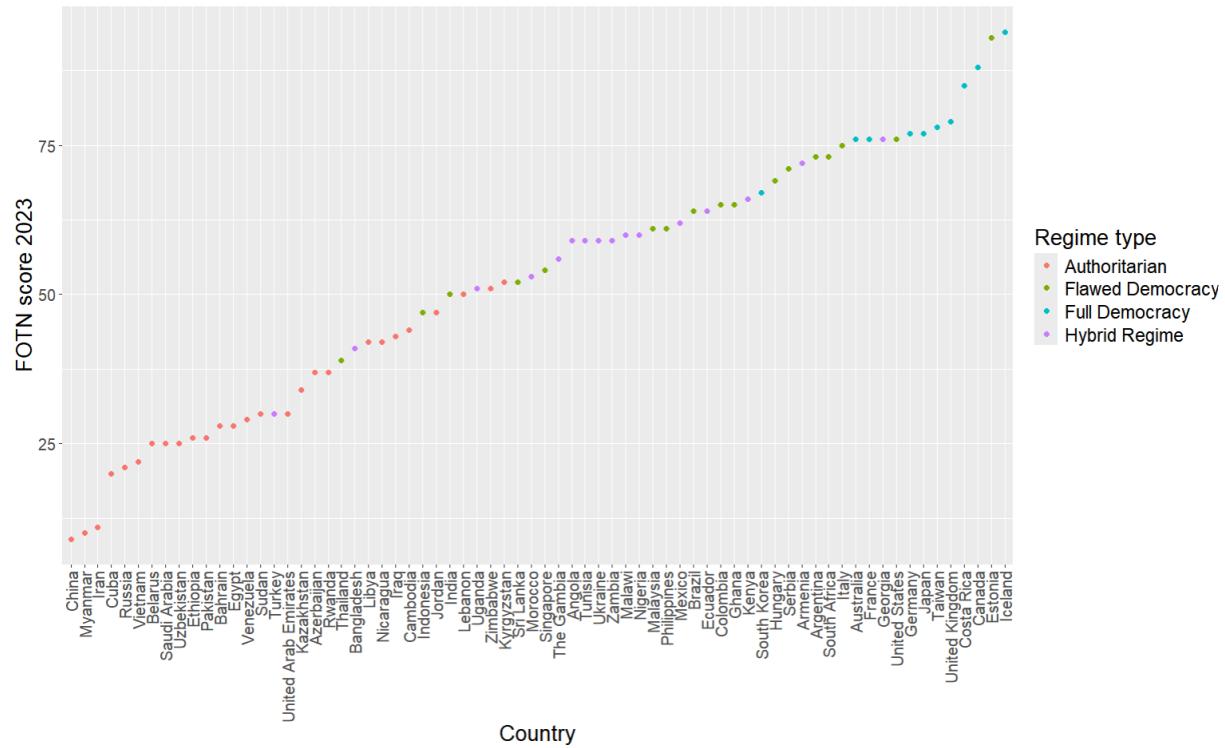
Residual standard error: 4.568 on 65 degrees of freedom
Multiple R-squared: 0.7202, Adjusted R-squared: 0.703
F-statistic: 41.82 on 4 and 65 DF, p-value: < 2.2e-16

```
[1] "Spearman correlation coefficient: 0.816037856407324"
```

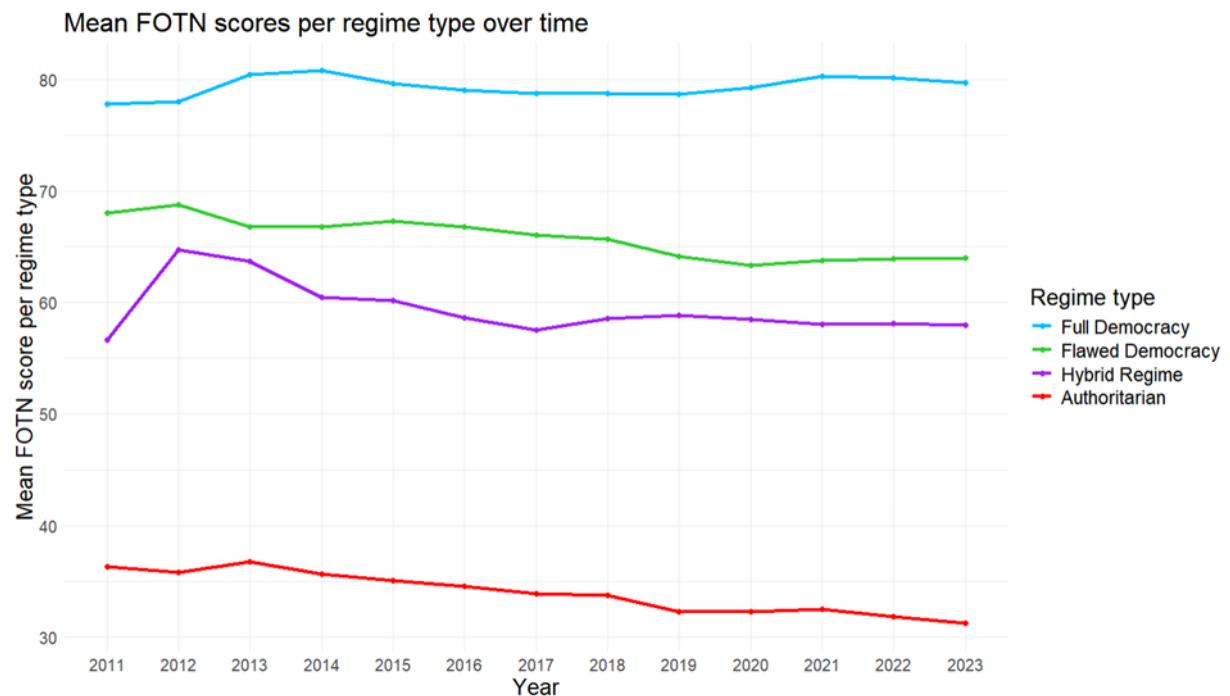
*B= Limits on content

2.1 FOTN scores 2023 per country and regime type

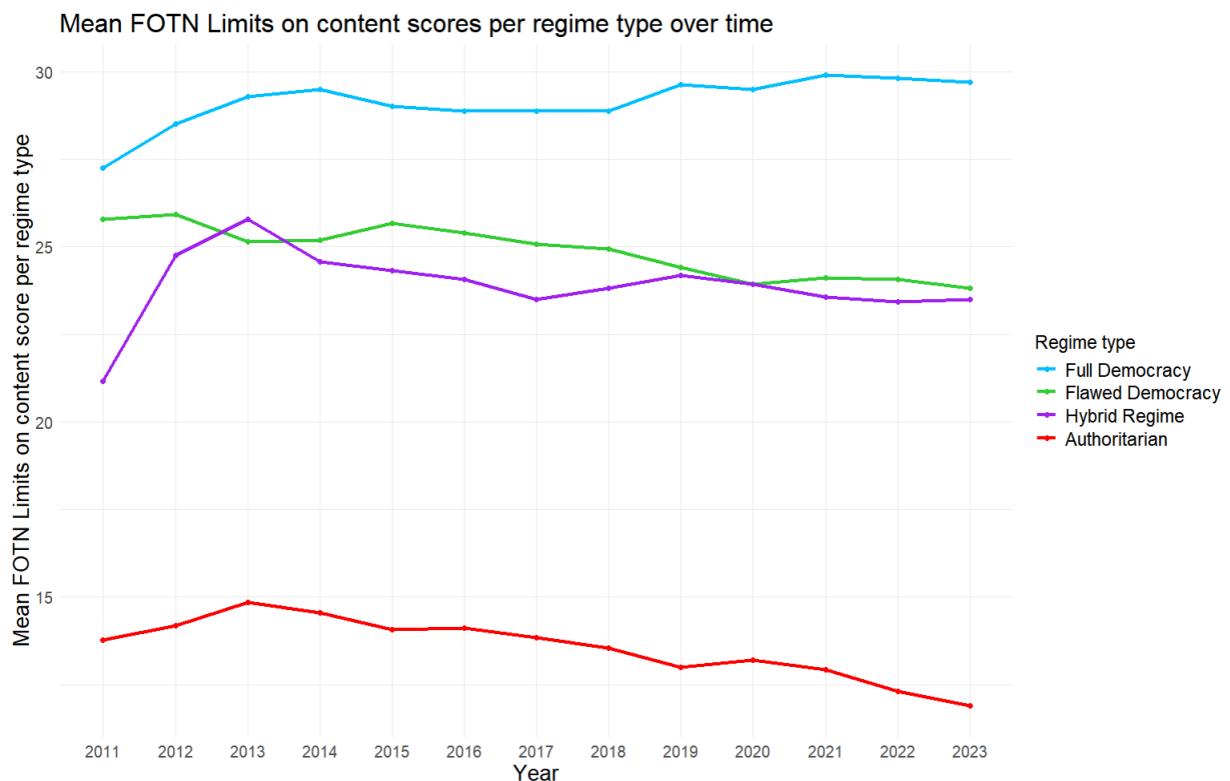
FOTN 2023 scores per regime type



3.1 Mean FOTN scores per regime type over time



3.2 Mean FOTN Limits on content scores per regime type over time



V-Dem Data

The selected indicators belong to the assessment indicators, which are based on several assessments provided by country experts. Type (C) data require an assessment of the factual situation in a specific country at a specific point in time. Country experts code this data.

The Internet censorship effort (v2mecenefi) belongs to the Media which is part of the Civil Liberty. This variable is assembled by the Varieties of Democracy project. The other indicators are derived from the Digital Society Survey, which is organised by the Digital Society Project and contains questions on the political environment of the internet and social media.

We used the ‘Model Estimates’ – Measurement Model Output (e.g. v2mecenefi), which provides country-year point estimates (Coppedge et al., 2024c, p. 26).

Here is an example of the composition and measurement of an indicator (Coppedge et al., 2024b, pp. 207-208).

Internet censorship effort (C) (v2mecenefi)

Project Manager(s): Michael Coppedge

Additional versions: *_osp, *_ord, *_codelow, *_codehigh, *_sd, *_mean, *_nr

Question: Does the government attempt to censor information (text, audio, or visuals) on the Internet?

Clarification: Censorship attempts include Internet filtering (blocking access to certain websites or browsers), denial-of-service attacks, and partial or total Internet shutdowns. We are not concerned with censorship of topics such as child pornography, highly classified information such as military or intelligence secrets, statements offensive to a particular religion, or defamatory speech unless this sort of censorship is used as a pretext for censoring political information or opinions. We are also not concerned with the extent of internet access, unless there is absolutely no access at all (in which case the coding should be 0).

Responses:

0 (1): The government successfully blocks Internet access except to sites that are pro-government or devoid of political content.

1 (2): The government attempts to block Internet access except to sites that are pro-government or devoid of political content, but many users are able to circumvent such controls.

2 (3): The government allows Internet access, including to some sites that are critical of the government, but blocks selected sites that deal with especially politically sensitive issues.

3 (4): The government allows Internet access that is unrestricted, with the exceptions mentioned above.

Scale: Ordinal, converted to interval by the measurement model.

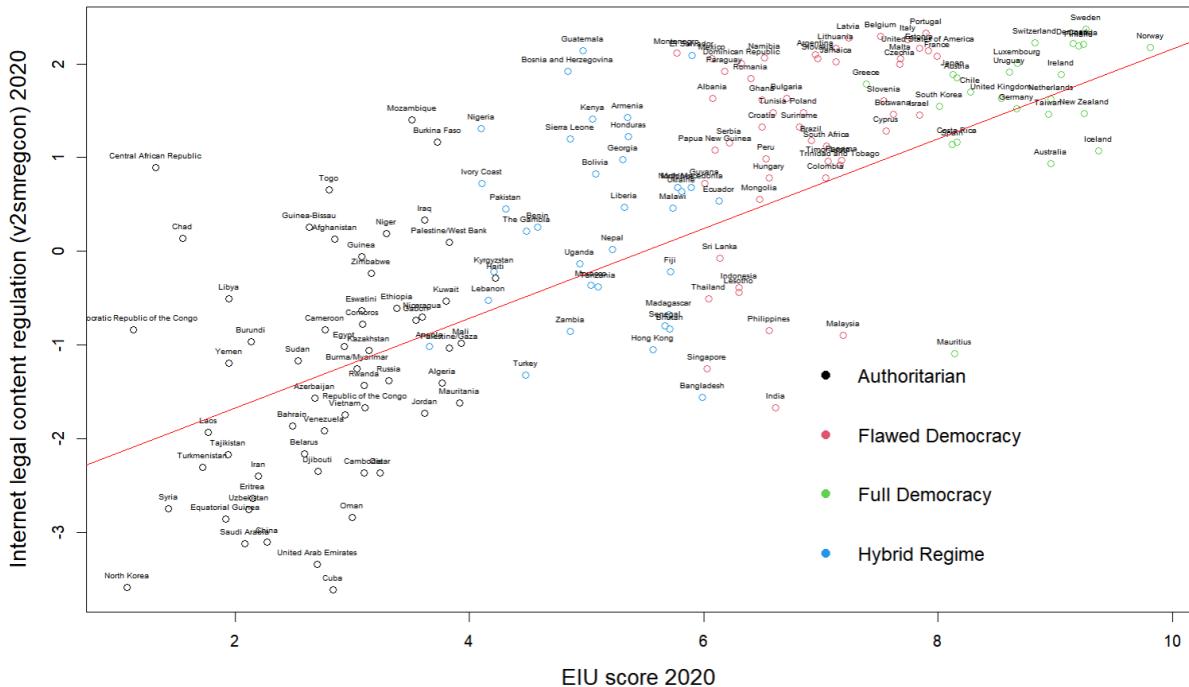
Notes: As of December 2014, the former category "0 There is no internet" is coded separately asv2mecenefibin. The variable is then rebased to zero.

Data release: 3-14.

Cross-coder aggregation: Bayesian item response theory measurement model (see V-Dem Methodology).

4.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EIU democracy score 2020

Bivariate distribution V-Dem Internet legal regulation content and EIU scores



```
Call:
lm(formula = v2smregcon ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.77864	-0.52955	0.08152	0.55974	2.89496

Coefficients:

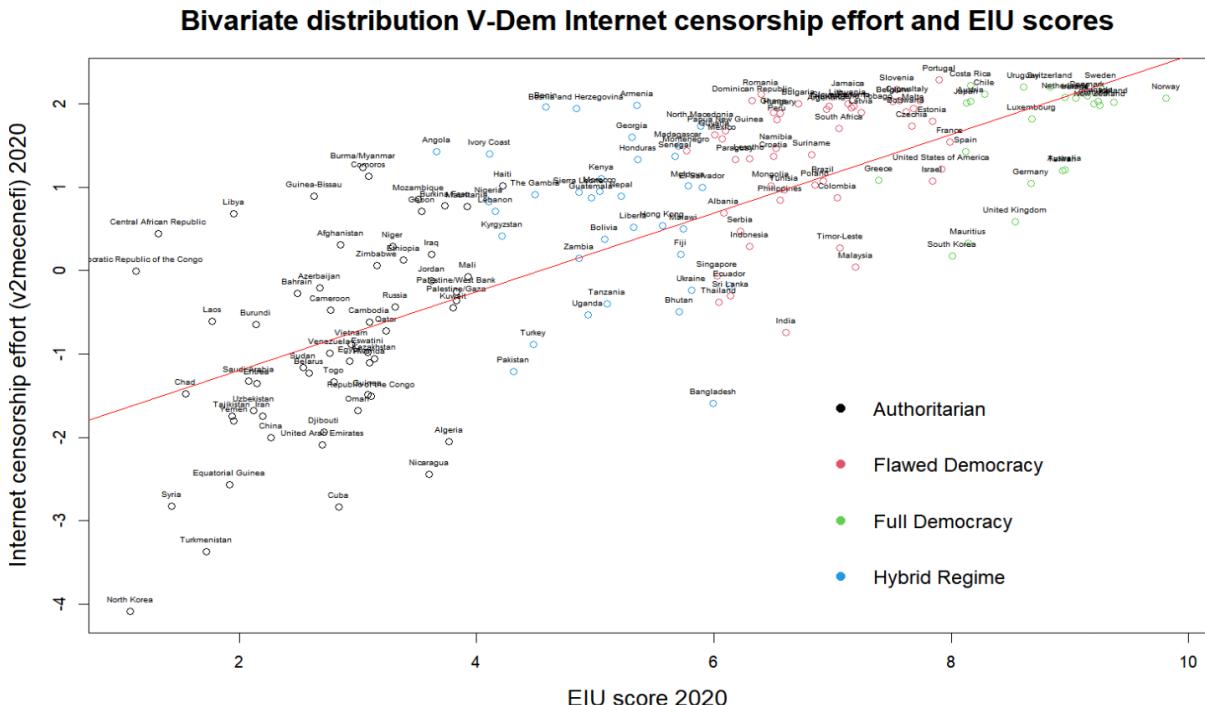
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.63386	0.35008	-7.524	3.47e-12 ***
democracy_index	0.47947	0.11622	4.126	5.90e-05 ***
regimeFlawed Democracy	0.57222	0.51049	1.121	0.264
regimeFull Democracy	0.08022	0.72855	0.110	0.912
regimeHybrid Regime	0.45902	0.34423	1.333	0.184

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.9987 on 162 degrees of freedom
Multiple R-squared: 0.6055, Adjusted R-squared: 0.5957
F-statistic: 62.15 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.77199553987755"

4.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EIU democracy score 2020



Call:

```
lm(formula = v2mecenefi ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.6550	-0.5329	0.1006	0.5778	1.9529

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.1373	0.3128	-6.833	1.60e-10 ***
democracy_index	0.4715	0.1038	4.541	1.09e-05 ***
regimeFlawed Democracy	0.2694	0.4561	0.591	0.556
regimeFull Democracy	-0.2930	0.6509	-0.450	0.653
regimeHybrid Regime	0.3710	0.3076	1.206	0.229

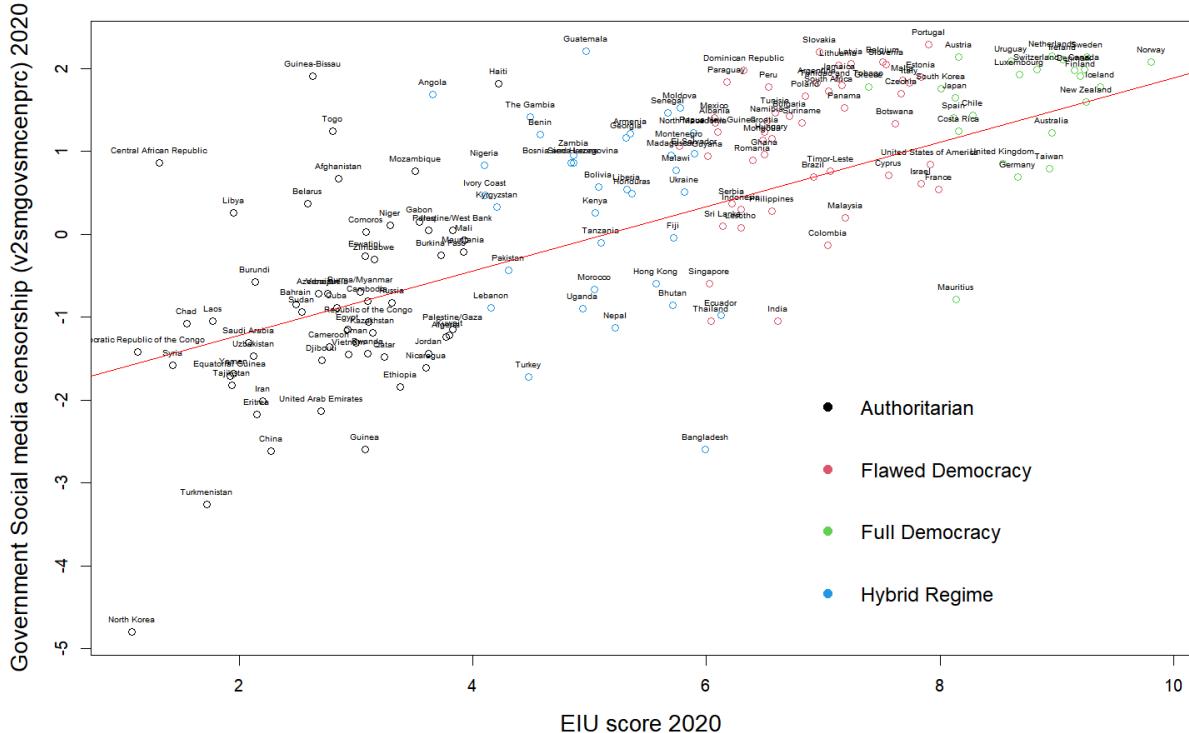
Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.8923 on 162 degrees of freedom
Multiple R-squared: 0.5943, Adjusted R-squared: 0.5843
F-statistic: 59.33 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.776103827856062"

4.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EIU democracy score 2020

Bivariate distribution V-Dem Government Social media censorship and EIU scores



Call:

```
lm(formula = v2smgovsmcenprc ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-3.2685	-0.6025	0.1462	0.5463	2.8851

Coefficients:

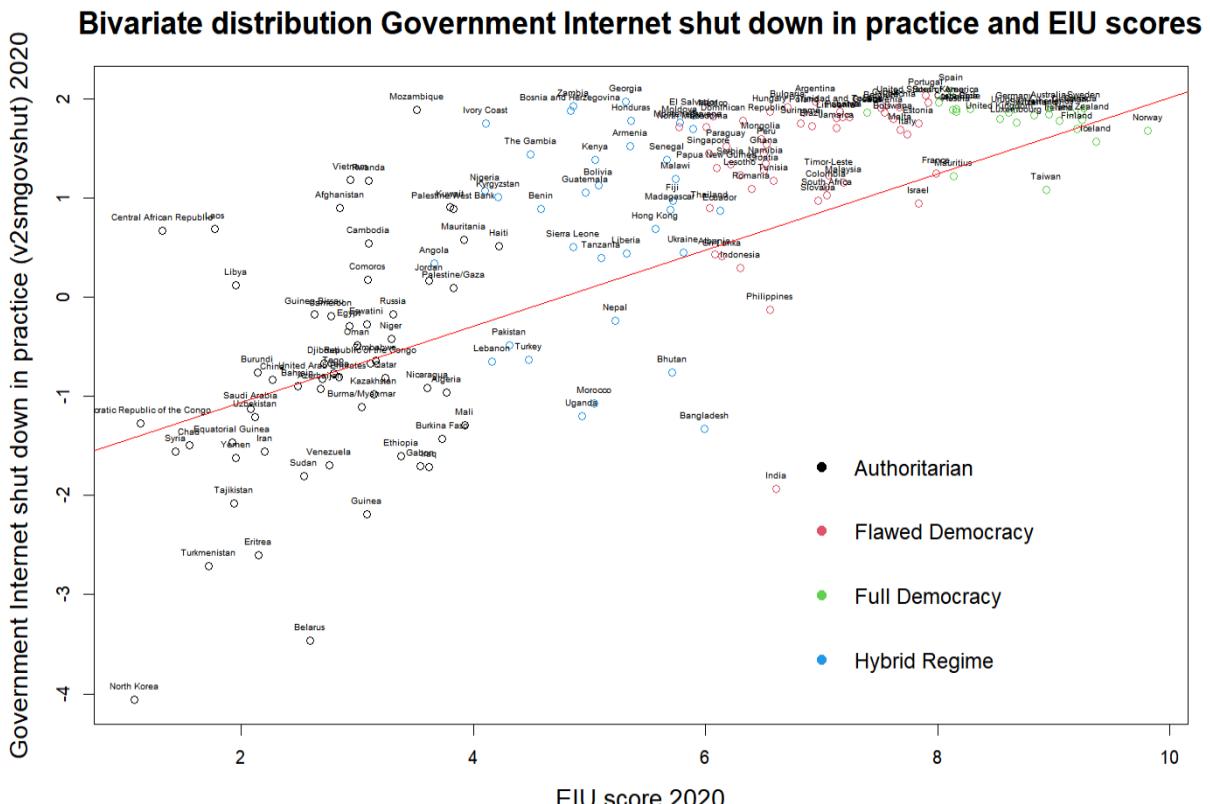
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-1.9991	0.3340	-5.985	1.34e-08 ***
democracy_index	0.3886	0.1109	3.505	0.000591 ***
regimeFlawed Democracy	0.4728	0.4870	0.971	0.333062
regimeFull Democracy	0.1959	0.6951	0.282	0.778472
regimeHybrid Regime	0.3430	0.3284	1.045	0.297804

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.9528 on 162 degrees of freedom
Multiple R-squared: 0.5378, Adjusted R-squared: 0.5264
F-statistic: 47.12 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.735382443095179"

4.4 Bivariate distribution of V-Dem Government Internet shut down in practice and (v2smgovshut) and EIU democracy score 2020



Call:

```
lm(formula = v2smgovshut ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-3.2294	-0.3605	0.0882	0.4237	2.3640

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-1.8253	0.3026	-6.033	1.06e-08 ***
democracy_index	0.3836	0.1004	3.819	0.000191 ***
regimeFlawed Democracy	0.5862	0.4412	1.329	0.185806
regimeFull Democracy	0.2709	0.6297	0.430	0.667642
regimeHybrid Regime	0.6026	0.2975	2.025	0.044470 *

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

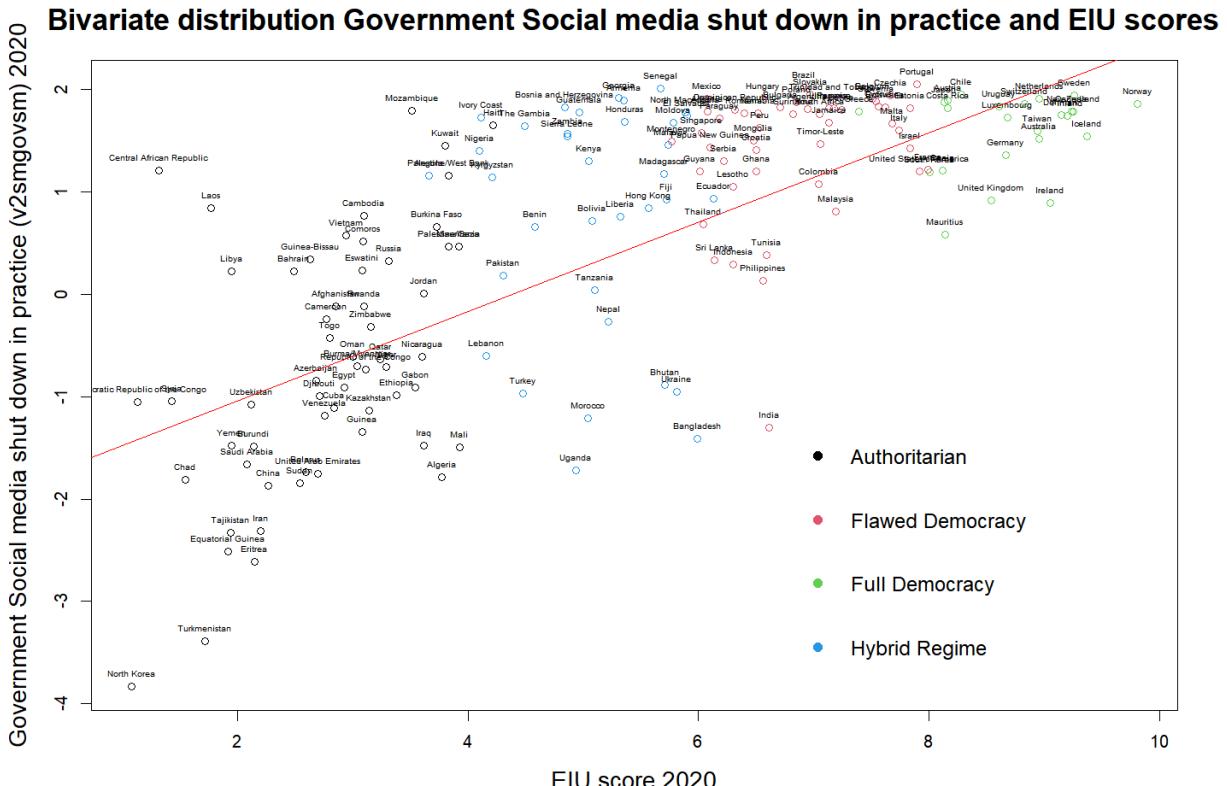
Residual standard error: 0.8631 on 162 degrees of freedom

Multiple R-squared: 0.6023, Adjusted R-squared: 0.5925

F-statistic: 61.33 on 4 and 162 DF, p-value: < 2.2e-16

```
[1] "Spearman correlation coefficient: 0.779195933028562"
```

4.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EIU democracy score 2020



Call:

```
lm(formula = v2smgovsm ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.6526	-0.4561	0.1086	0.5393	2.5505

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-1.9121	0.3186	-6.001	1.24e-08 ***
democracy_index	0.4361	0.1058	4.122	5.98e-05 ***
regimeFlawed Democracy	0.3764	0.4647	0.810	0.419
regimeFull Democracy	-0.2847	0.6631	-0.429	0.668
regimeHybrid Regime	0.4677	0.3133	1.493	0.137

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

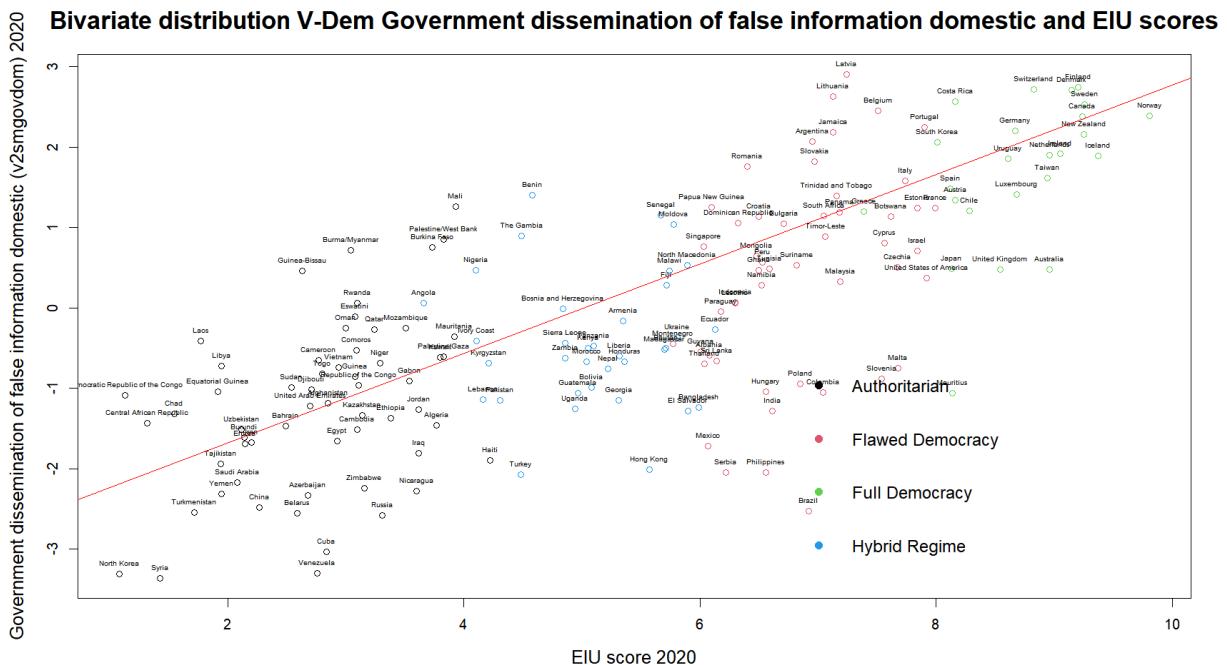
Residual standard error: 0.909 on 162 degrees of freedom

Multiple R-squared: 0.5637, Adjusted R-squared: 0.5529

F-statistic: 52.33 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.730073588717728"

4.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EIU democracy score 2020



Call:

```
lm(formula = v2smgovdom ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.99676	-0.51904	0.04897	0.60195	2.26011

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.7910	0.3496	-7.984	2.47e-13 ***
democracy_index	0.5567	0.1161	4.797	3.64e-06 ***
regimeFlawed Democracy	-0.5954	0.5098	-1.168	0.245
regimeFull Democracy	-0.3610	0.7275	-0.496	0.620
regimeHybrid Regime	-0.4767	0.3437	-1.387	0.167

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

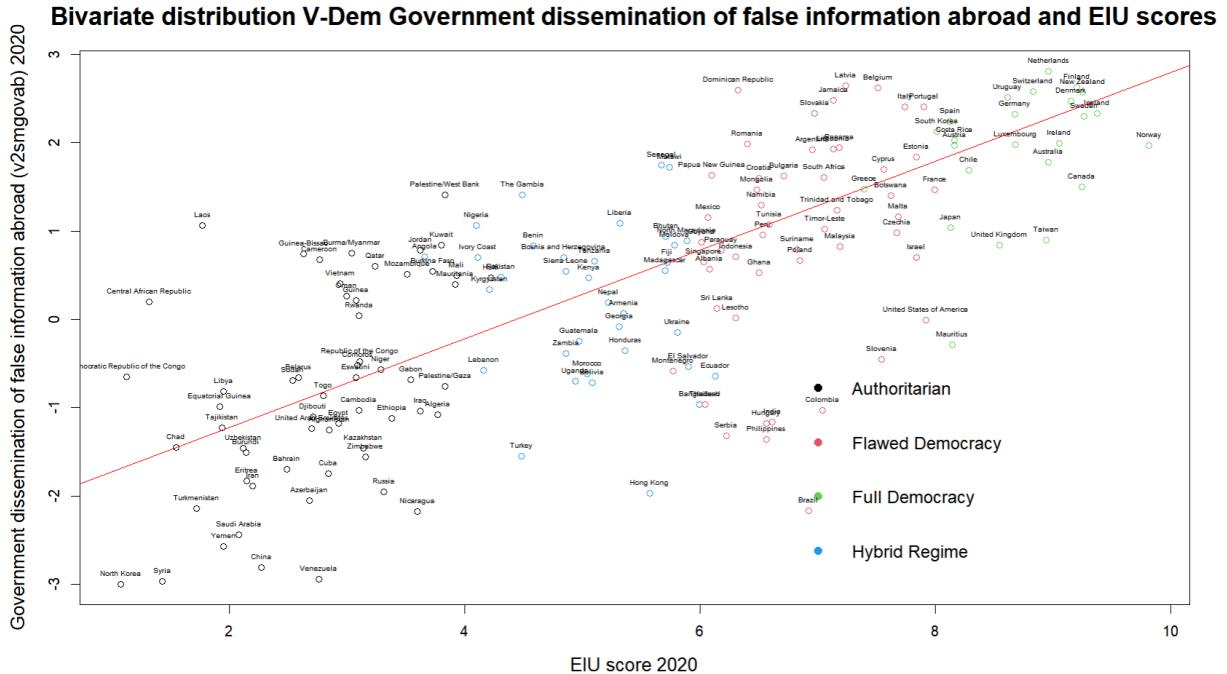
Residual standard error: 0.9973 on 162 degrees of freedom

Multiple R-squared: 0.5443, Adjusted R-squared: 0.533

F-statistic: 48.37 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.718505220265149"

4.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EIU democracy score 2020



```
Call:  
lm(formula = v2smgovab ~ democracy_index + regime, data = df)
```

Residuals:

Min 1Q Median 3Q Max
-3.10200 -0.65305 0.09154 0.66937 2.40038

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-2.2255	0.3506	-6.347	2.11e-09	***
democracy_index	0.5018	0.1164	4.310	2.82e-05	***
regimeFlawed Democracy	-0.3066	0.5113	-0.600	0.550	
regimeFull Democracy	-0.2355	0.7297	-0.323	0.747	
regimeHybrid Regime	-0.1382	0.3448	-0.401	0.689	

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

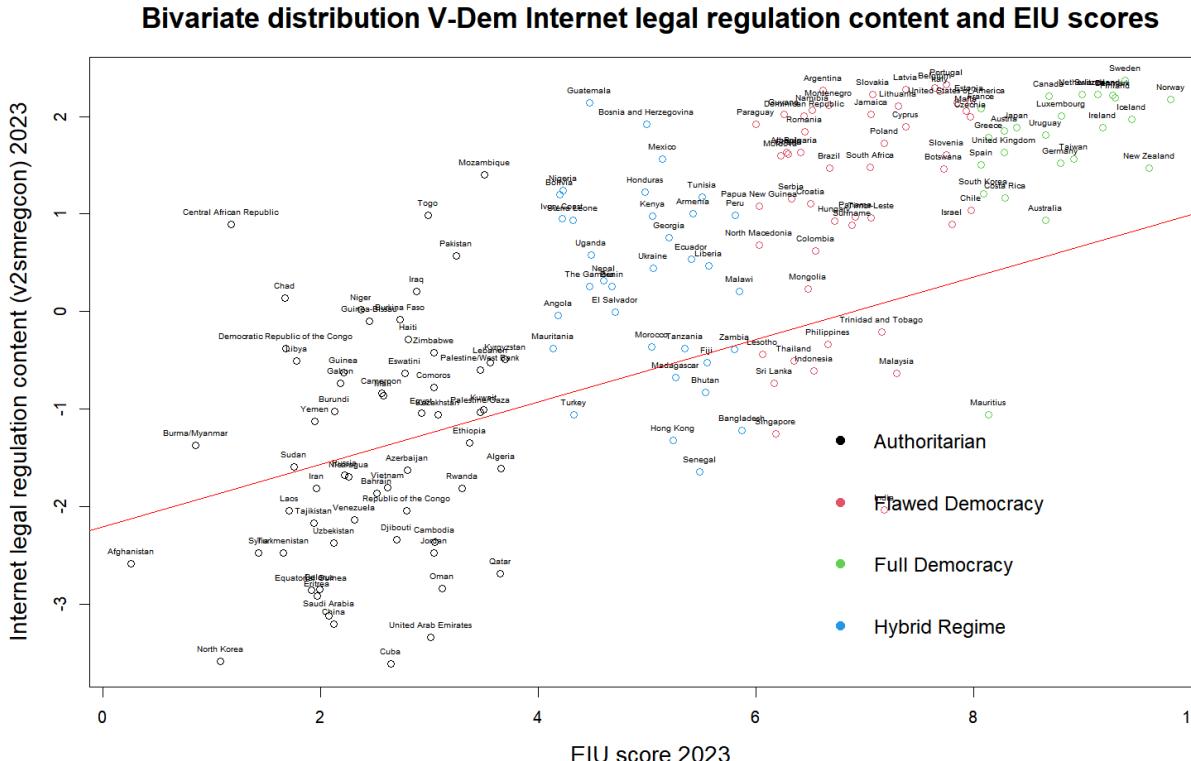
Residual standard error: 1 on 162 degrees of freedom

Multiple R-squared: 0.516, Adjusted R-squared: 0.504

F-statistic: 43.17 on 4 and 162 DF, p-value: < 2.2e-16

```
[1] "Spearman correlation coefficient: 0.729632514035579"
```

5.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EIU democracy score 2023



```
Call:
lm(formula = v2smregcon ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-3.3022	-0.5786	0.1414	0.6475	2.7237

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.2074	0.3369	-6.551	7.23e-10 ***
democracy_index	0.3201	0.1243	2.575	0.0109 *
regimeFlawed Democracy	1.1802	0.5838	2.022	0.0449 *
regimeFull Democracy	1.1017	0.8193	1.345	0.1806
regimeHybrid Regime	0.9085	0.3831	2.371	0.0189 *

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 1.032 on 162 degrees of freedom

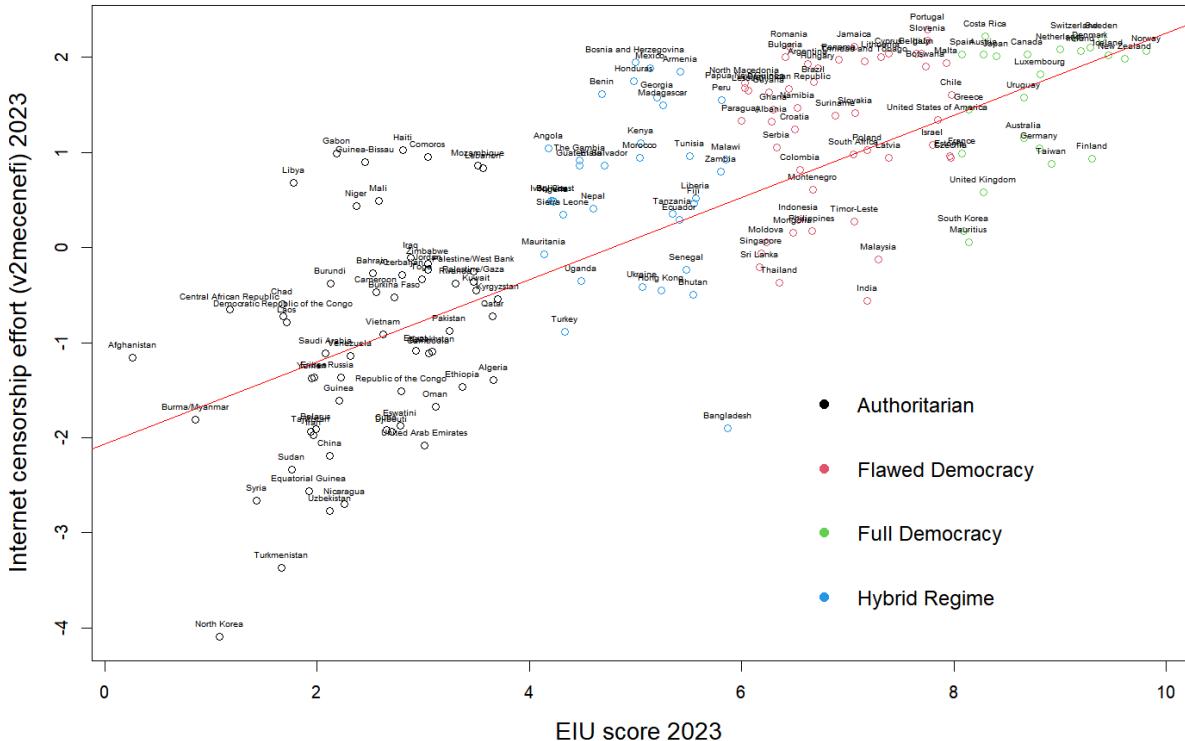
Multiple R-squared: 0.6049, Adjusted R-squared: 0.5951

F-statistic: 62 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.767059410119441"

5.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EIU democracy score 2023

Bivariate distribution V-Dem Internet censorship effort and EIU scores



Call:

```
lm(formula = v2mecenefi ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.8909	-0.6722	0.1257	0.5888	2.1155

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.0675	0.2885	-7.166	2.58e-11 ***
democracy_index	0.4321	0.1064	4.060	7.63e-05 ***
regimeFlawed Democracy	0.3291	0.4999	0.658	0.511
regimeFull Democracy	-0.1520	0.7016	-0.217	0.829
regimeHybrid Regime	0.5250	0.3281	1.600	0.111

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

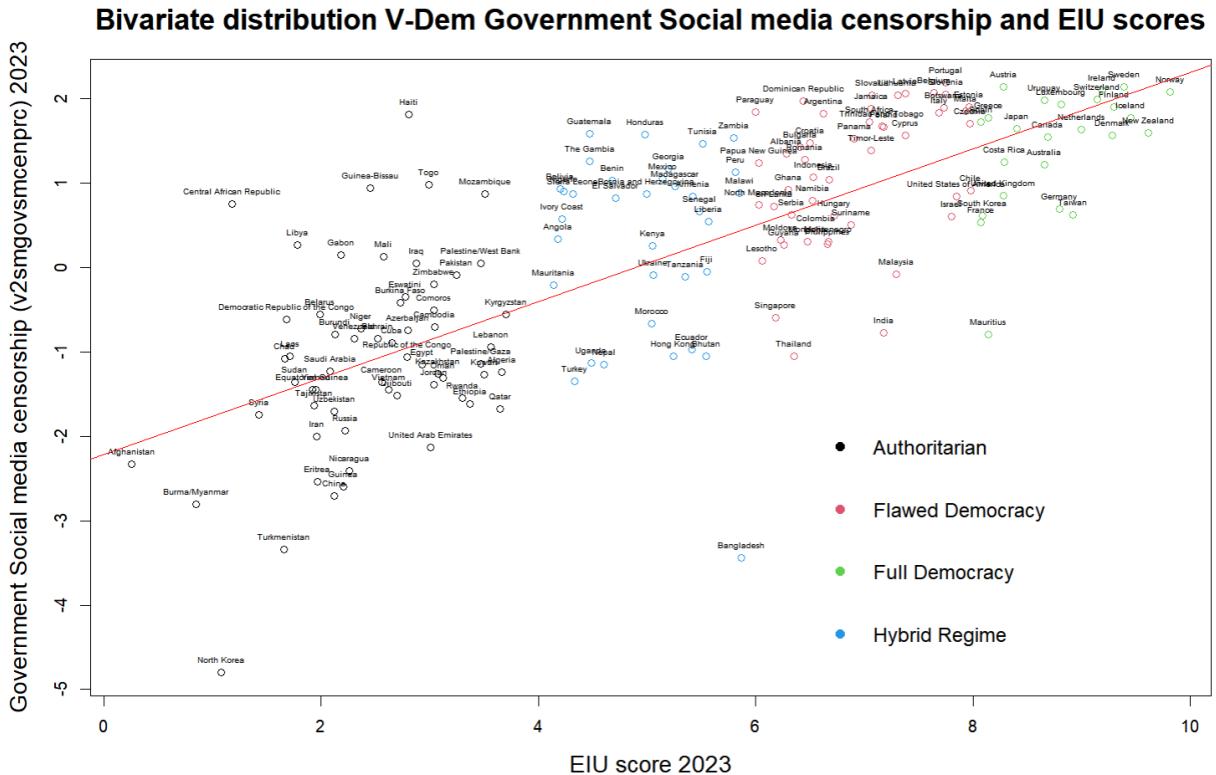
Residual standard error: 0.8836 on 162 degrees of freedom

Multiple R-squared: 0.6106, Adjusted R-squared: 0.601

F-statistic: 63.51 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.76998696224695"

5.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EIU democracy score 2023



call:

```
lm(formula = v2smgovsmcenprc ~ democracy_index + regime, data = df)
```

Residuals:

Min 1Q Median 3Q Max
-4.1250 -0.5519 0.1212 0.5685 2.7558

Coefficients:

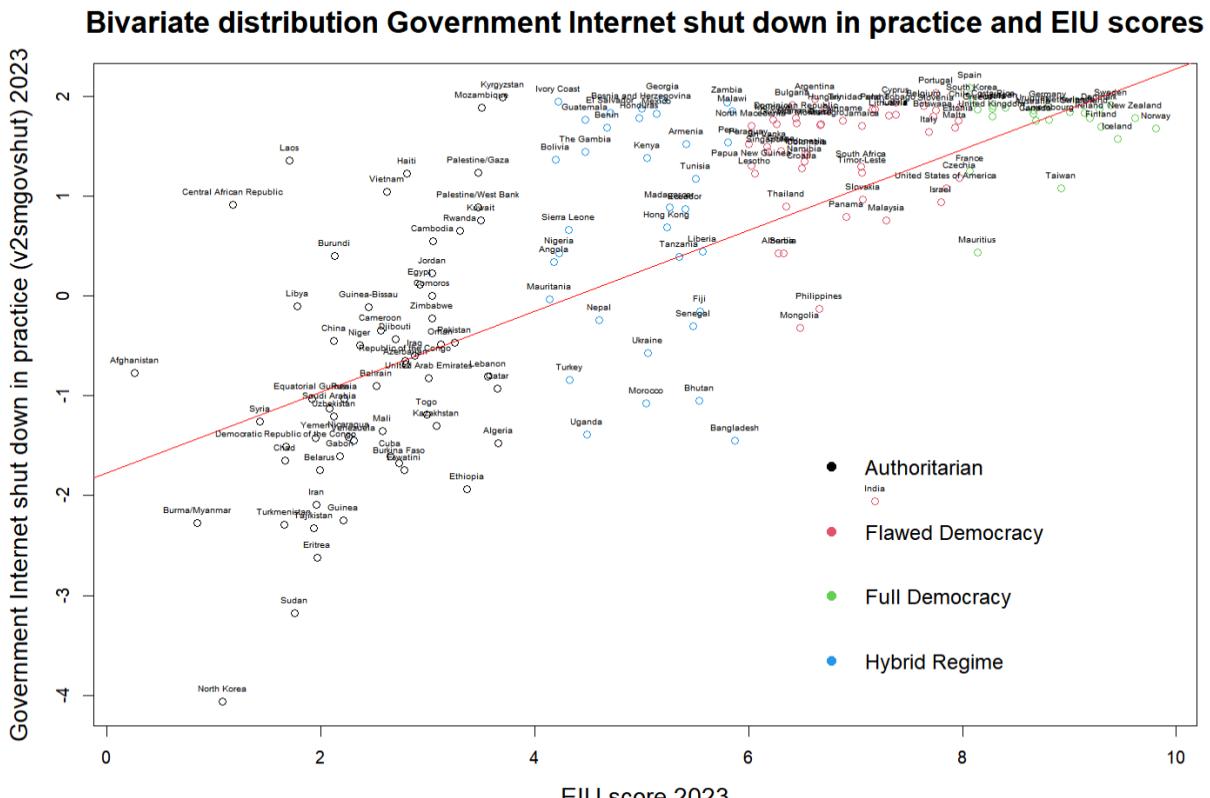
	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-2.2107	0.3066	-7.211	2.01e-11	***
democracy_index	0.4526	0.1131	4.002	9.53e-05	***
regimeFlawed Democracy	0.1945	0.5312	0.366	0.715	
regimeFull Democracy	-0.3199	0.7455	-0.429	0.668	
regimeHybrid Regime	0.2387	0.3486	0.685	0.494	

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.9389 on 162 degrees of freedom
Multiple R-squared: 0.5718, Adjusted R-squared: 0.5612
F-statistic: 54.08 on 4 and 162 DF, p-value: < 2.2e-16

```
[1] "Spearman correlation coefficient: 0.753351082105073"
```

5.4 Bivariate distribution of V-Dem Government Internet shut down in practice and (v2smgovshut) and EIU democracy score 2023



Call:

```
lm(formula = v2smgovshut ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-3.5304	-0.5564	0.0598	0.5256	2.4344

Coefficients:

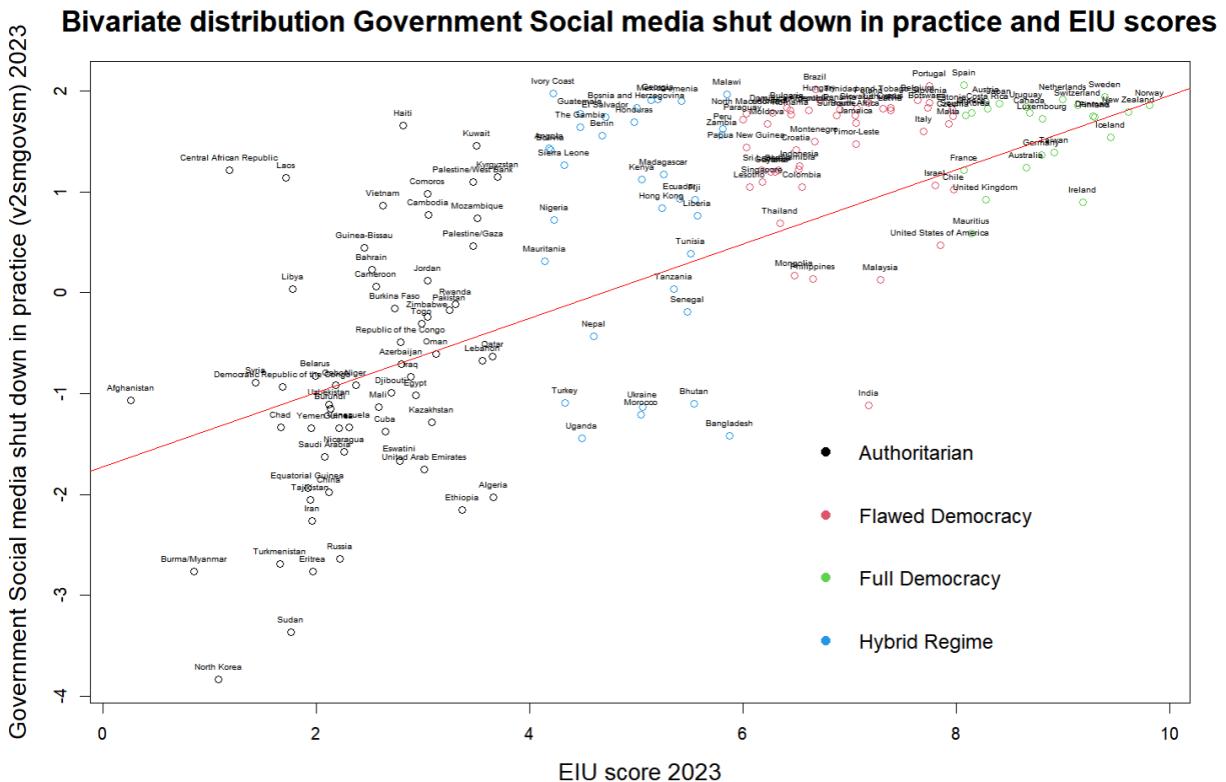
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-1.77298	0.30844	-5.748	4.37e-08 ***
democracy_index	0.40502	0.11378	3.560	0.000488 ***
regimeFlawed Democracy	0.33533	0.53440	0.627	0.531224
regimeFull Democracy	-0.06223	0.75004	-0.083	0.933979
regimeHybrid Regime	0.46675	0.35072	1.331	0.185110

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.9446 on 162 degrees of freedom
Multiple R-squared: 0.5554, Adjusted R-squared: 0.5444
F-statistic: 50.59 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.725716663596758"

5.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EIU democracy score 2023



```
Call:  
lm(formula = v2smgovsm ~ democracy_index + regime, data = df)
```

Residuals:

restdays:

	Min	1Q	Median	3Q	Max
-2.6340	-0.3605	0.1048	0.5102	2.5052	

Coefficients:

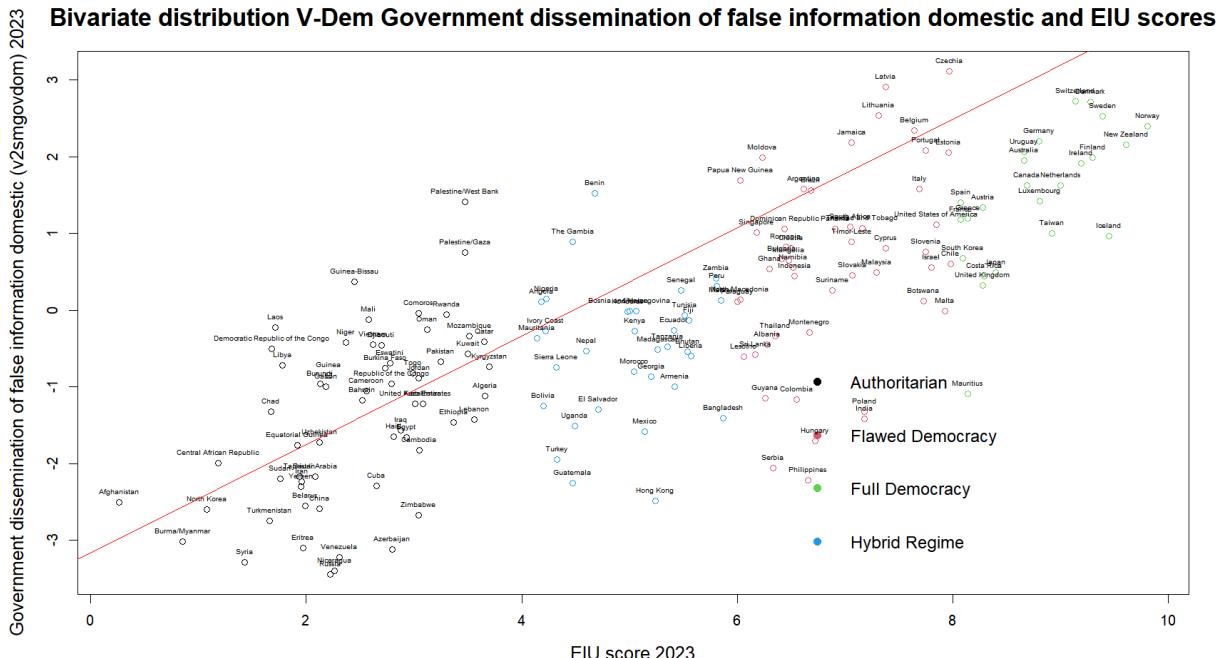
	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-1.7255	0.3094	-5.577	1.01e-07	***
democracy_index	0.3681	0.1141	3.225	0.00152	**
regimeFlawed Democracy	0.6037	0.5361	1.126	0.26181	
regimeFull Democracy	0.1049	0.7524	0.139	0.88930	
regimeHybrid Regime	0.6606	0.3518	1.878	0.06224	.

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.9476 on 162 degrees of freedom
Multiple R-squared: 0.5607, Adjusted R-squared: 0.5498
F-statistic: 51.69 on 4 and 162 DF, p-value: < 2.2e-16

```
[1] "Spearman correlation coefficient: 0.720455215973369"
```

5.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EIU democracy score 2023



Call:

```
lm(formula = v2smgovdom ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.6193	-0.5724	0.1264	0.5679	2.2656

Coefficients:

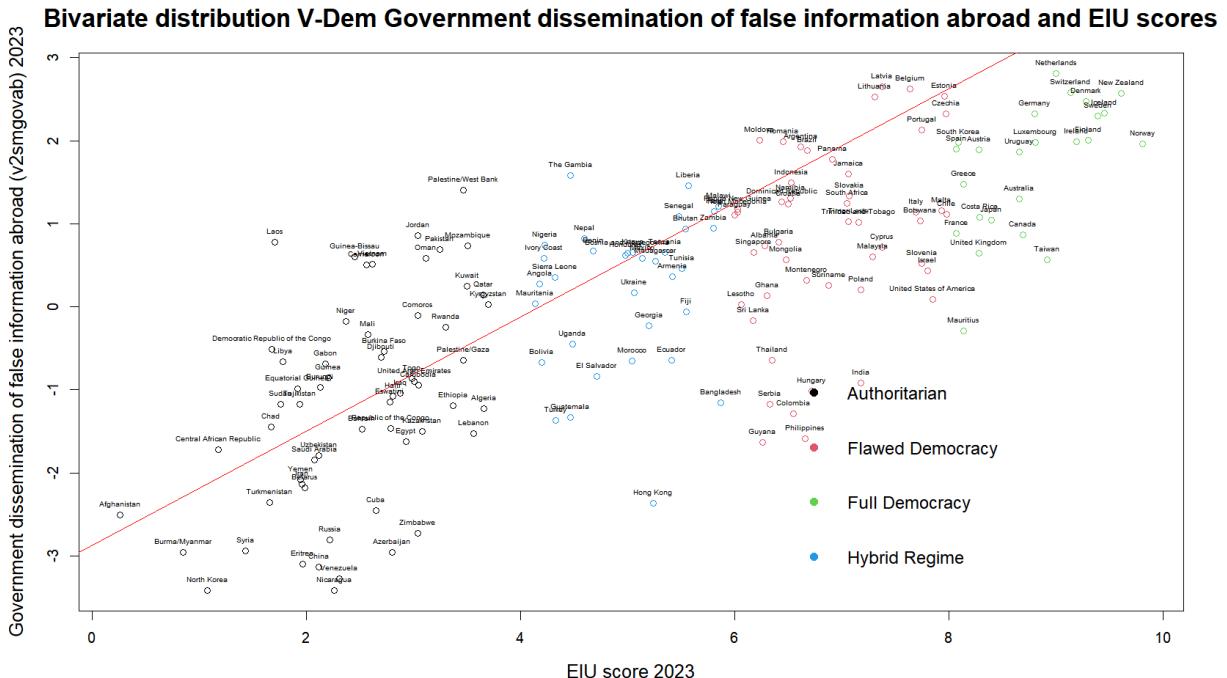
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-3.1582	0.3179	-9.934	< 2e-16 ***
democracy_index	0.7054	0.1173	6.015	1.16e-08 ***
regimeFlawed Democracy	-1.1351	0.5508	-2.061	0.0409 *
regimeFull Democracy	-1.5612	0.7731	-2.020	0.0451 *
regimeHybrid Regime	-0.8855	0.3615	-2.450	0.0154 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9736 on 162 degrees of freedom
Multiple R-squared: 0.5894, Adjusted R-squared: 0.5793
F-statistic: 58.15 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.757596077874404"

5.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EIU democracy score 2023



Call:

```
lm(formula = v2smgovab ~ democracy_index + regime, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.7303	-0.5862	0.1843	0.6794	2.4811

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.8761	0.3212	-8.955	7.67e-16 ***
democracy_index	0.6883	0.1185	5.810	3.23e-08 ***
regimeFlawed Democracy	-1.0329	0.5564	-1.856	0.0652 .
regimeFull Democracy	-1.4713	0.7810	-1.884	0.0614 .
regimeHybrid Regime	-0.3683	0.3652	-1.009	0.3147

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

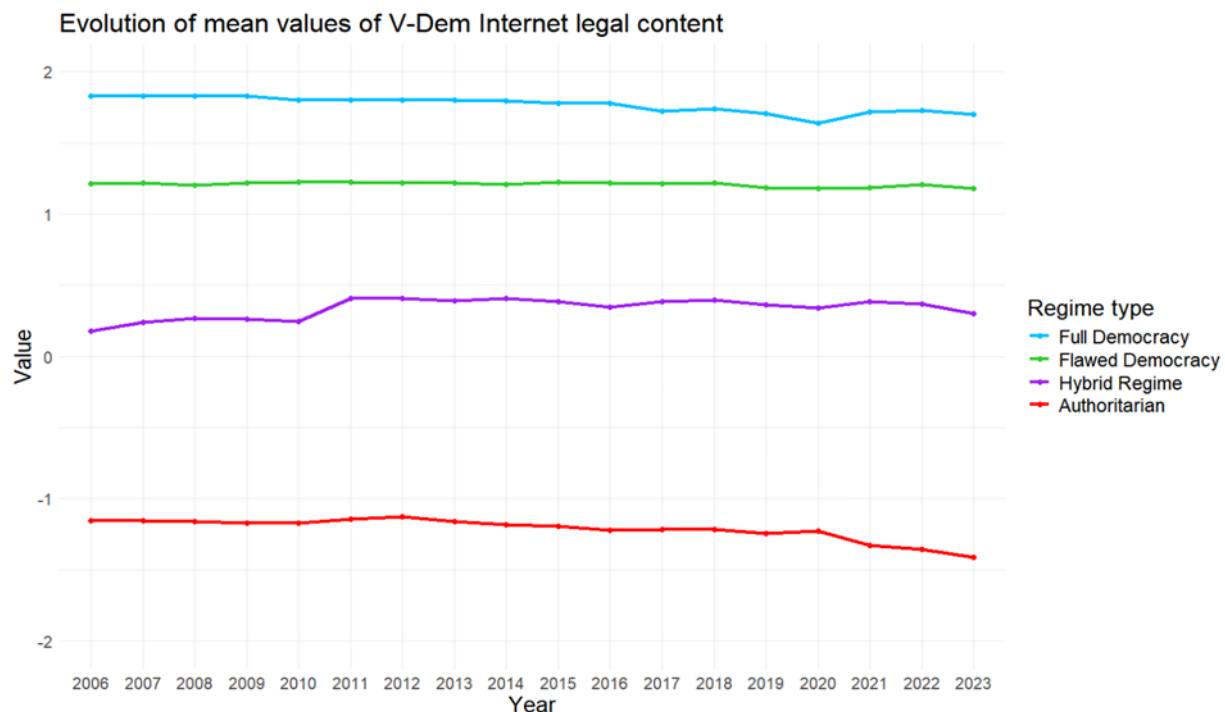
Residual standard error: 0.9836 on 162 degrees of freedom

Multiple R-squared: 0.5799, Adjusted R-squared: 0.5695

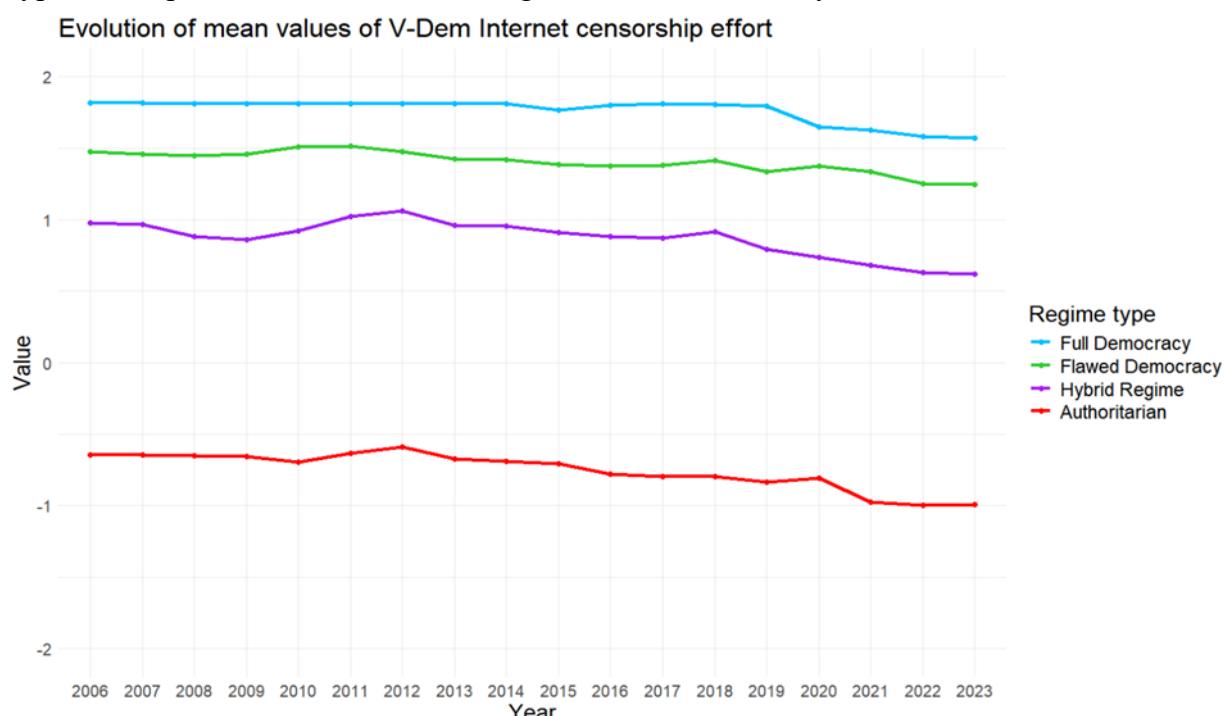
F-statistic: 55.9 on 4 and 162 DF, p-value: < 2.2e-16

[1] "Spearman correlation coefficient: 0.74822985595465"

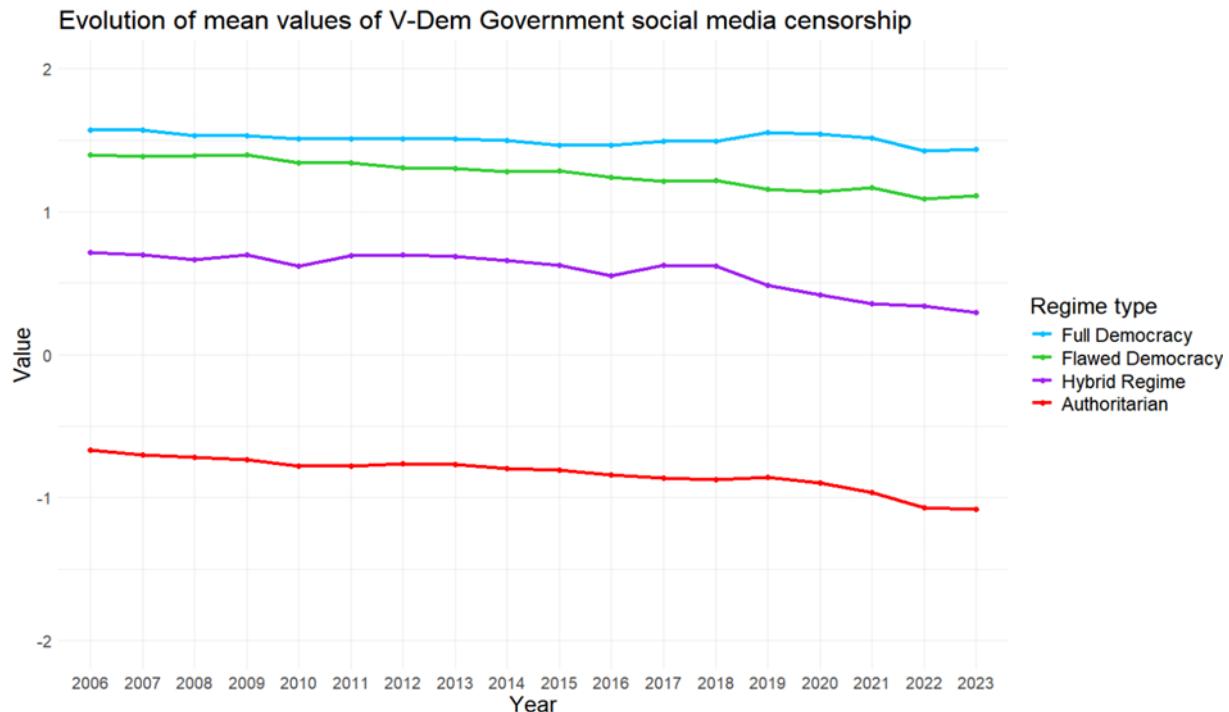
6.1 Evolution of mean values of V-Dem Internet legal content (v2smregcon) per regime type for the period 2006–2023 according to the EIU Democracy status



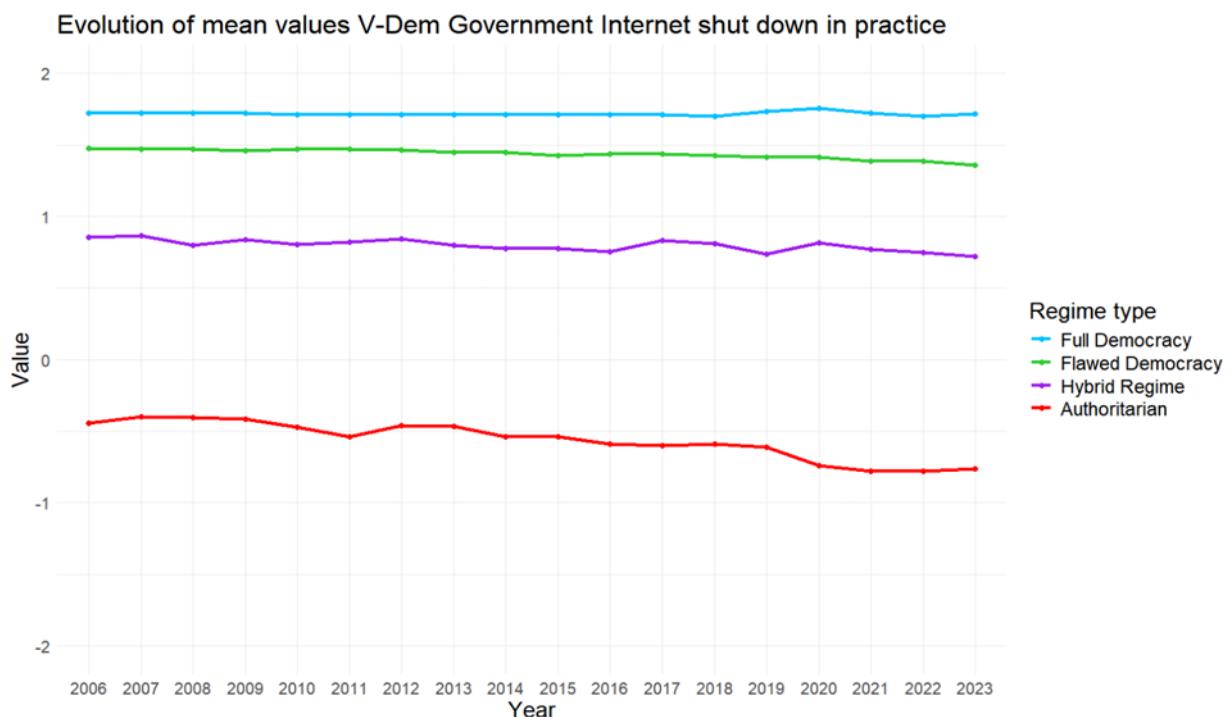
6.2 Evolution of mean values of V-Dem Internet censorship effort (v2mecenefi) per regime type for the period 2006–2023 according to the EIU Democracy status



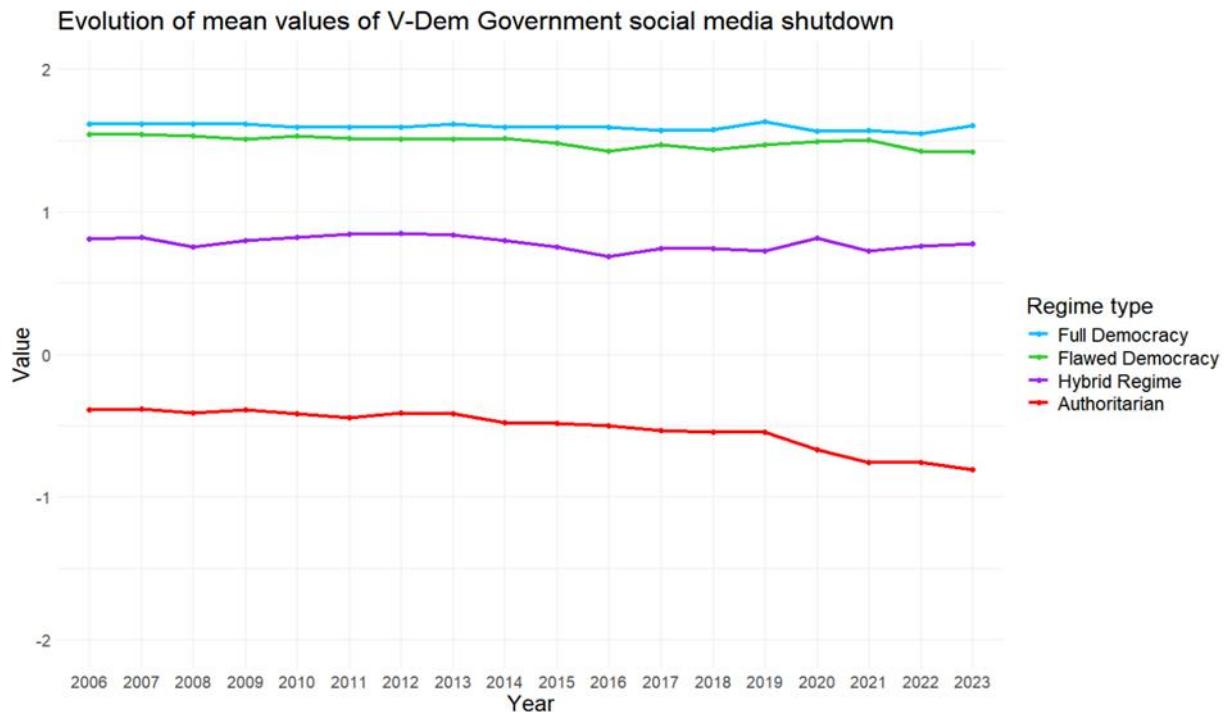
6.3 Evolution of mean values of V-Dem Government social media censorship (v2smgovsmcenprc) per regime type for the years 2006–2023 according to the EIU Democracy status



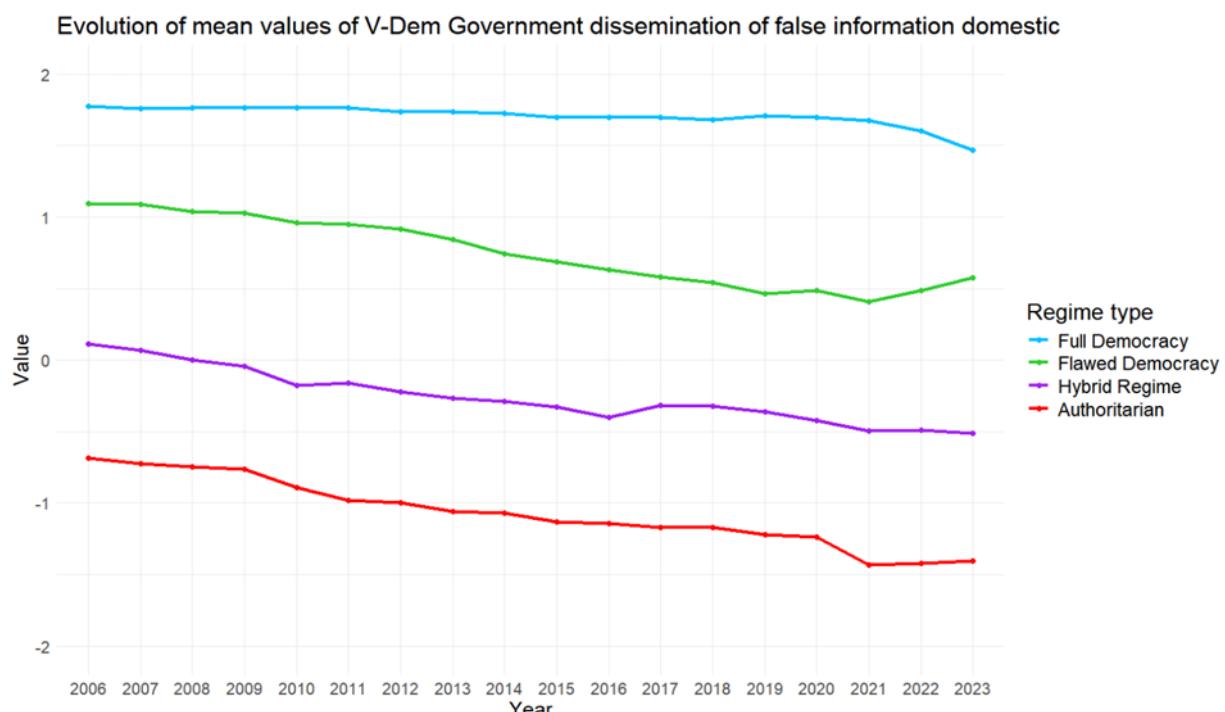
6.4 Evolution of mean values V-Dem Government Internet shut down in practice (v2smgovshut) per regime type in the years 2006–2023 according to the EIU Democracy status



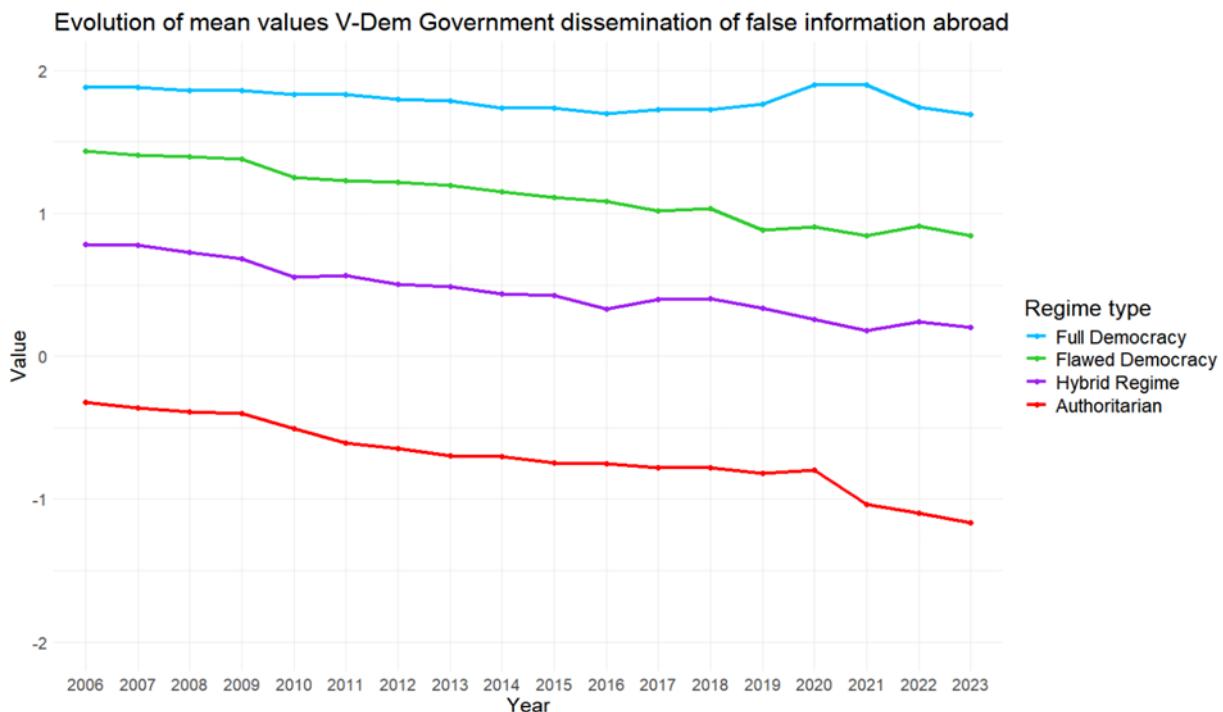
6.5 Evolution of mean values of V-Dem Government social media shutdown (v2smgovsm) per regime type in the years 2006–2023 according to the EIU Democracy status



6.6 Evolution of mean values of V-Dem Government dissemination of false information domestic (v2smgovdom) per regime type for the years 2006–2023 according to the EIU Democracy status



6.7 Evolution of mean values V-Dem Government dissemination of false information abroad (v2smgovab) per regime type for the years 2006–2023 according to the EIU Democracy status



7.1 Top 30 countries with biggest decreases of assessments for (v2smregcon): Legal internet regulation content 2019-2020 and 2022-2023

country	v2smregcon2020	country	v2smregcon2023
Mauritania	-1.183	Cuba	-3.611
Canada	-0.993	North Korea	-3.583
Belarus	-0.92	United Arab Emirates	-3.344
Iceland	-0.81	China	-3.207
Burkina Faso	-0.737	Saudi Arabia	-3.117
South Africa	-0.603	Eritrea	-2.912
United States	-0.596	Equatorial Guinea	-2.854
Timor-Leste	-0.591	Belarus	-2.847
Bangladesh	-0.549	Oman	-2.841
Netherlands	-0.547	Qatar	-2.688
Turkmenistan	-0.413	Afghanistan	-2.581
Panama	-0.406	Syria	-2.477
Spain	-0.395	Turkmenistan	-2.473
Togo	-0.347	Jordan	-2.471
India	-0.311	Uzbekistan	-2.373
Hungary	-0.27	Cambodia	-2.362
Uruguay	-0.265	Djibouti	-2.335
Haiti	-0.262	Tajikistan	-2.17
Armenia	-0.258	Venezuela	-2.139
Colombia	-0.226	Laos	-2.046
Niger	-0.22	Republic of the Congo	-2.044
Honduras	-0.166	India	-2.031
Russia	-0.139	Bahrain	-1.865

Nepal	-0.111	Iran	-1.811
Zimbabwe	-0.1	Rwanda	-1.81
Iran	-0.097	Vietnam	-1.803
Turkey	-0.048	Nicaragua	-1.697
Ukraine	-0.032	Russia	-1.678
Georgia	-0.02	Senegal	-1.646
Kazakhstan	-0.017		

7.2 Top 30 countries with biggest decreases of assessments for (v2mecenefi): Internet censorship effort 2019-2020 and 2022-2023

country	v2mecenefi2020	Country	v2mecenefi2023
United Kingdom	-1.092	North Korea	-4.091
Algeria	-1.032	Turkmenistan	-3.371
Liberia	-0.999	Uzbekistan	-2.766
Guinea	-0.898	Nicaragua	-2.701
Bulgaria	-0.889	Syria	-2.665
Mauritius	-0.875	Equatorial Guinea	-2.558
Albania	-0.836	Sudan	-2.337
Cuba	-0.795	China	-2.194
Spain	-0.761	United Arab Emirates	-2.086
Belarus	-0.755	Iran	-1.977
Mozambique	-0.612	Tajikistan	-1.94
Georgia	-0.602	Djibouti	-1.937
United States	-0.559	Cuba	-1.92
El Salvador	-0.548	Belarus	-1.907
Tanzania	-0.443	Bangladesh	-1.897
Croatia	-0.397	Eswatini	-1.871
Latvia	-0.396	Burma/Myanmar	-1.811
Sri Lanka	-0.378	Oman	-1.675
Togo	-0.372	Guinea	-1.615
United Arab Emirates	-0.32	Republic of the Congo	-1.507
Burundi	-0.308	Ethiopia	-1.465
Senegal	-0.246	Algeria	-1.395
Bolivia	-0.227	Yemen	-1.377
Mongolia	-0.166	Russia	-1.37
Bangladesh	-0.15	Eritrea	-1.367
Qatar	-0.142	Afghanistan	-1.16
Central African Republic	-0.116	Venezuela	-1.142
Ukraine	-0.037	Saudi Arabia	-1.114
Afghanistan	0	Comodia	-1.109
Argentina	0	Kazakhstan	-1.097

7.3 Top 30 countries with biggest decreases of assessments for (v2smgovsmcenprc): Government social media censorship in practice 2019-2020 and 2022-2023

country	v2smgovsmcenprc2020	country	v2smgovsmcenprc2023
Guinea	-3.152	North Korea	-4.796

Belarus	-0.993	Bangladesh	-3.44
Armenia	-0.867	Turkmenistan	-3.344
Romania	-0.797	Burma/Myanmar	-2.809
Côte d'Ivoire	-0.796	China	-2.71
Czechia	-0.611	Guinea	-2.595
Timor-Leste	-0.528	Eritrea	-2.536
Mauritius	-0.522	Nicaragua	-2.406
Kenya	-0.481	Afghanistan	-2.333
Honduras	-0.458	United Arab Emirates	-2.129
Brazil	-0.456	Iran	-2.001
El Salvador	-0.438	Russia	-1.931
Kyrgyzstan	-0.368	Syria	-1.742
Madagascar	-0.368	Uzbekistan	-1.704
Bhutan	-0.348	Qatar	-1.672
India	-0.322	Tajikistan	-1.637
Ethiopia	-0.29	Ethiopia	-1.616
Cyprus	-0.286	Rwanda	-1.545
Colombia	-0.256	Djibouti	-1.517
Fiji	-0.216	Vietnam	-1.448
Venezuela	-0.208	Jordan	-1.388
Bangladesh	-0.195	Cameroon	-1.362
Azerbaijan	-0.192	Sudan	-1.362
Thailand	-0.175	Equatorial Guinea	-1.447
Morocco	-0.116	Yemen	-1.443
Kazakhstan	-0.108	Turkey	-1.345
Nigeria	-0.098	Kuwait	-1.267
Georgia	-0.09	Kazakhstan	-1.258
Serbia	-0.086	Algeria	-1.241
Ukraine	-0.076		

7.4 Top 25 countries with strongest increases of Internet control from 2019 to 2023

Legal internet regulation content		Social media censorship		Internet censorship effort		Internet shut down		Social media shut down		Dissemination of false information domestic		Dissemination of false information abroad	
Afghanistan	-2.71	Burma/Myanmar	-2.70	Burma/Myanmar	-2.34	Belarus	-3.42	Russia	-3.09	Burma/Myanmar	-3.87	Burma/Myanmar	-3.76
El Salvador	-2.10	Afghanistan	-2.42	Hong Kong	-2.04	Senegal	-2.2	Belarus	-2.68	Belarus	-2.81	Belarus	-2.88
Belarus	-1.76	Belarus	-2.14	Senegal	-1.93	Mongolia	-1.92	Burma/Myanmar	-2.23	Costa Rica	-2.13	Guyana	-2.5
Hong Kong	-1.66	Guinea	-1.76	Belarus	-1.58	Guinea	-1.88	Senegal	-2.19	Nicaragua	-1.78	Nicaragua	-2.17
Nicaragua	-1.19	Hong Kong	-1.50	Ethiopia	-1.48	Eswatini	-1.47	Eswatini	-1.91	Armenia	-1.62	Central African Republic	-1.91
Burkina Faso	-1.19	Angola	-1.35	Afghanistan	-1.47	Ukraine	-1.38	Guinea	-1.67	Burkina Faso	-1.51	Haiti	-1.82
Trinidad and Tobago	-1.13	Moldova	-1.20	Guinea	-1.40	Mali	-1.36	United States of America	-1.40	Zimbabwe	-1.42	Azerbaijan	-1.33
Senegal	-0.851	South Korea	-1.14	Burkina Faso	-1.31	Sudan	-1.23	Mongolia	-1.33	Mali	-1.38	Slovenia	-1.23
Armenia	-0.677	Chile	-1.14	Central African Republic	-1.19	Burma/Myanmar	-1.16	Colombia	-0.97	South Korea	-1.38	Zimbabwe	-1.18
Sri Lanka	-0.66	Palestine/Gaza	-1.13	United Kingdom	-1.12	Fiji	-1.12	Nicaragua	-0.967	Slovakia	-1.28	Guinea	-1.16
Jordan	-0.646	Russia	-1.10	Russia	-1.12	Panama	-1.02	Ethiopia	-0.954	Guatemala	-1.19	Eritrea	-1.15
Turkmenistan	-0.601	Nicaragua	-1.08	Finland	-1.07	Slovakia	-0.958	Sudan	-0.932	Ghana	-1.15	Mali	-1.14
Hungary	-0.598	Kyrgyzstan	-1.06	Liberia	-1.07	Serbia	-0.914	Chile	-0.929	Peru	-1.14	Guatemala	-1.09
Guinea	-0.57	Bangladesh	-0.977	Mongolia	-1.02	Uganda	-0.907	Mali	-0.88	Haiti	-1.14	Burkina Faso	-1.08
Israel	-0.561	Armenia	-0.966	Sudan	-0.967	Afghanistan	-0.899	Nigeria	-0.861	Botswana	-1.12	Slovakia	-1.08

United States of America	-0.52	Guinea- Bissau	-0.96 2	Mauritius	-0.964	United States of America	-0.877	Ireland	-0.854	Afghanistan	-1.11	Lebanon	-1.07
Kuwait	-0.478	Mongolia	-0.83 5	Kyrgyzsta n	-0.958	Cuba	-0.864	Eritrea	-0.837	Sudan	-1.01	Cyprus	-0.976
Vietnam	-0.467	Suriname	-0.83 4	Moldova	-0.956	Russia	-0.85 9	Burkina Faso	-0.808	Iceland	-0.926	Costa Rica	-0.954
India	-0.442	Senegal	-0.8 05	Latvia	-0.951	Czechia	-0.734	Malaysia	-0.8	Netherlands	-0.911	Peru	-0.95
Suriname	-0.439	Palestine/ West Bank	-0.76 7	Ivory Coast	-0.91 2	Iran	-0.709	Uganda	-0.777	Senegal	-0.894	Mongolia	-0.9
Timo-Leste	-0.394	Guyana	-0.67 3	Eswatini	-0.887	Nigeria	-0.648	Afghanistan	-0.71	Slovenia	-0.888	El Salvador	-0.879
Russia	-0.391	Peru	-0.64 7	Nicaragua	-0.854	Ethiopia	-0.595	Cuba	-0.643	Russia	-0.858	Russia	-0.857
Uruguay	-0.384	Guatemala	-0.62 7	Montenegr o	-0.834	North Korea	-0.574	Algeria	-0.593	Azerbaijan	-0.784	Bulgaria	-0.846
Poland	-0.382	Ukraine	-0.62 3	Estonia	-0.829	Mauritius	-0.564	Namibia	-0.544	Guyana	-0.783	Afghanistan	-0.843
Rwanda	-0.38	Malaysia	-0.59 8	Nigeria	-0.813	Croatia	-0.555	Azerbaijan	-0.537	Finland	-0.756	Kyrgyzstan	-0.731

Legal internet regulation content

country <i><fct></i>	`2019`		`2023`	Difference
	<i><db1></i>	<i><db1></i>	<i><db1></i>	<i><db1></i>
1 Afghanistan	0.132	-2.58	-2.71	
2 El Salvador	2.09	-0.01	-2.10	
3 Belarus	-1.08	-2.85	-1.76	
4 Hong Kong	0.34	-1.32	-1.66	
5 Nicaragua	-0.503	-1.70	-1.19	
6 Burkina Faso	1.11	-0.079	-1.19	
7 Trinidad and Tobago	0.916	-0.211	-1.13	
8 Senegal	-0.795	-1.65	-0.851	
9 Armenia	1.68	1.01	-0.677	
10 Sri Lanka	-0.077	-0.737	-0.66	
11 Jordan	-1.82	-2.47	-0.646	
12 Turkmenistan	-1.87	-2.47	-0.601	
13 Hungary	1.53	0.929	-0.598	
14 Guinea	-0.058	-0.628	-0.57	
15 Israel	1.46	0.896	-0.561	
16 United States of America	2.66	2.14	-0.52	
17 Kuwait	-0.531	-1.01	-0.478	
18 Vietnam	-1.34	-1.80	-0.467	
19 India	-1.59	-2.03	-0.442	
20 Suriname	1.32	0.883	-0.439	
21 Timor-Leste	1.36	0.962	-0.394	
22 Russia	-1.29	-1.68	-0.391	
23 Uruguay	2.19	1.81	-0.384	
24 Poland	1.86	1.48	-0.382	
25 Rwanda	-1.43	-1.81	-0.38	

Internet censorship effort

country <i><fct></i>	`2019`		`2023`	Difference
	<i><db1></i>	<i><db1></i>	<i><db1></i>	<i><db1></i>
1 Burma/Myanmar	0.529	-1.81	-2.34	
2 Hong Kong	1.59	-0.452	-2.04	
3 Senegal	1.69	-0.235	-1.93	
4 Belarus	-0.329	-1.91	-1.58	
5 Ethiopia	0.018	-1.46	-1.48	
6 Afghanistan	0.312	-1.16	-1.47	
7 Guinea	-0.211	-1.62	-1.40	
8 Burkina Faso	0.779	-0.528	-1.31	
9 Central African Republic	0.543	-0.651	-1.19	
10 United Kingdom	1.70	0.583	-1.12	
11 Russia	-0.255	-1.37	-1.12	
12 Finland	2.00	0.932	-1.07	
13 Liberia	1.59	0.521	-1.07	
14 Mongolia	1.17	0.152	-1.02	
15 Sudan	-1.37	-2.34	-0.967	
16 Mauritius	1.02	0.053	-0.964	
17 Kyrgyzstan	0.416	-0.542	-0.958	
18 Moldova	1.01	0.058	-0.956	
19 Latvia	1.90	0.946	-0.951	
20 Ivory Coast	1.40	0.486	-0.912	
21 Eswatini	-0.984	-1.87	-0.887	
22 Nicaragua	-1.85	-2.70	-0.854	
23 Montenegro	1.44	0.606	-0.834	
24 Estonia	1.79	0.963	-0.829	
25 Nigeria	1.30	0.485	-0.813	

Social media censorship

country <i><fct></i>	`2019`		`2023`	Difference
	<i><db1></i>	<i><db1></i>	<i><db1></i>	<i><db1></i>
1 Burma/Myanmar	-0.107	-2.81	-2.70	
2 Afghanistan	0.09	-2.33	-2.42	
3 Belarus	1.58	-0.554	-2.14	

4	Guinea	-0.832	-2.60	-1.76
5	Hong Kong	0.448	-1.05	-1.50
6	Angola	1.68	0.334	-1.35
7	Moldova	1.53	0.322	-1.20
8	South Korea	1.76	0.618	-1.14
9	Chile	2.05	0.914	-1.14
10	Palestine/Gaza	-0.012	-1.14	-1.13
11	Russia	-0.826	-1.93	-1.10
12	Nicaragua	-1.33	-2.41	-1.08
13	Kyrgyzstan	0.508	-0.551	-1.06
14	Bangladesh	-2.46	-3.44	-0.977
15	Armenia	1.81	0.846	-0.966
16	Guinea-Bissau	1.91	0.946	-0.962
17	Mongolia	1.14	0.303	-0.835
18	Suriname	1.34	0.507	-0.834
19	Senegal	1.46	0.659	-0.805
20	Palestine/West Bank	0.815	0.048	-0.767
21	Guyana	0.94	0.267	-0.673
22	Peru	1.77	1.13	-0.647
23	Guatemala	2.21	1.58	-0.627
24	Ukraine	0.53	-0.093	-0.623
25	Malaysia	0.522	-0.076	-0.598

Internet shut down

country <fct>	2019`		2023`	Difference
	<dbl>	<dbl>	<dbl>	<dbl>
1 Belarus	1.68	-1.74	-3.42	
2 Senegal	1.89	-0.306	-2.2	
3 Mongolia	1.60	-0.322	-1.92	
4 Guinea	-0.374	-2.25	-1.88	
5 Eswatini	-0.277	-1.74	-1.47	
6 Ukraine	0.815	-0.569	-1.38	
7 Mali	0.014	-1.35	-1.36	
8 Sudan	-1.95	-3.18	-1.23	
9 Burma/Myanmar	-1.11	-2.27	-1.16	
10 Fiji	0.969	-0.154	-1.12	
11 Panama	1.81	0.791	-1.02	
12 Slovakia	1.93	0.969	-0.958	
13 Serbia	1.34	0.423	-0.914	
14 Uganda	-0.479	-1.39	-0.907	
15 Afghanistan	0.127	-0.772	-0.899	
16 United States of America	1.96	1.08	-0.877	
17 Cuba	-0.744	-1.61	-0.864	
18 Russia	-0.177	-1.04	-0.859	
19 Czechia	1.92	1.18	-0.734	
20 Iran	-1.38	-2.09	-0.709	
21 Nigeria	1.08	0.429	-0.648	
22 Ethiopia	-1.34	-1.94	-0.595	
23 North Korea	-3.49	-4.06	-0.574	
24 Mauritius	0.996	0.432	-0.564	
25 Croatia	1.83	1.28	-0.555	

Social media shut down

country <fct>	2019`		2023`	Difference
	<dbl>	<dbl>	<dbl>	<dbl>
1 Russia	0.451	-2.64	-3.09	
2 Belarus	1.86	-0.824	-2.68	
3 Burma/Myanmar	-0.535	-2.76	-2.23	
4 Senegal	2.01	-0.186	-2.19	
5 Eswatini	0.235	-1.67	-1.91	
6 Guinea	0.323	-1.35	-1.67	
7 United States of America	1.87	0.469	-1.40	
8 Mongolia	1.5	0.173	-1.33	
9 Colombia	2.02	1.05	-0.97	
10 Nicaragua	-0.609	-1.58	-0.967	

11	Ethiopia	-1.20	-2.15	-0.954
12	Sudan	-2.43	-3.36	-0.932
13	Chile	1.95	1.02	-0.929
14	Mali	-0.251	-1.13	-0.88
15	Nigeria	1.58	0.718	-0.861
16	Ireland	1.75	0.897	-0.854
17	Eritrea	-1.92	-2.76	-0.837
18	Burkina Faso	0.653	-0.155	-0.808
19	Malaysia	0.925	0.125	-0.8
20	Uganda	-0.661	-1.44	-0.777
21	Afghanistan	-0.36	-1.07	-0.71
22	Cuba	-0.734	-1.38	-0.643
23	Algeria	-1.44	-2.03	-0.593
24	Namibia	1.77	1.22	-0.544
25	Azerbaijan	-0.168	-0.705	-0

Dissemination of false information domestic

country <i><fct></i>	2019`		2023`	Difference
	<i><dbl></i>	<i><dbl></i>	<i><dbl></i>	<i><dbl></i>
1 Burma/Myanmar	0.853	-3.02	-3.87	
2 Belarus	0.258	-2.55	-2.81	
3 Costa Rica	2.57	0.44	-2.13	
4 Nicaragua	-1.61	-3.39	-1.78	
5 Armenia	0.624	-0.999	-1.62	
6 Burkina Faso	0.755	-0.756	-1.51	
7 Zimbabwe	-1.25	-2.67	-1.42	
8 Mali	1.26	-0.125	-1.38	
9 South Korea	2.06	0.677	-1.38	
10 Slovakia	1.73	0.454	-1.28	
11 Guatemala	-1.06	-2.26	-1.19	
12 Ghana	1.69	0.539	-1.15	
13 Peru	1.46	0.316	-1.14	
14 Haiti	-0.509	-1.65	-1.14	
15 Botswana	1.24	0.122	-1.12	
16 Afghanistan	-1.39	-2.50	-1.11	
17 Sudan	-1.19	-2.19	-1.01	
18 Iceland	1.89	0.966	-0.926	
19 Netherlands	2.54	1.62	-0.911	
20 Senegal	1.15	0.255	-0.894	
21 Slovenia	1.65	0.758	-0.888	
22 Russia	-2.58	-3.44	-0.858	
23 Azerbaijan	-2.33	-3.12	-0.784	
24 Guyana	-0.367	-1.15	-0.783	
25 Finland	2.74	1.99	-0.756	

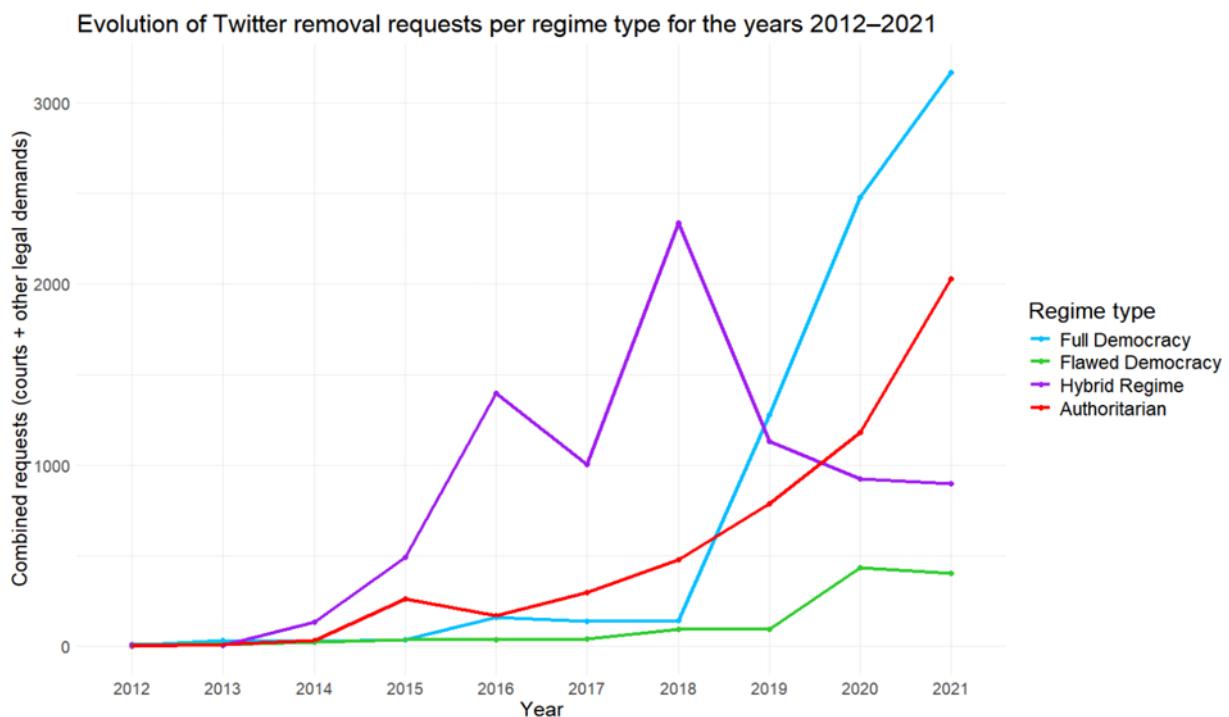
Dissemination of false information abroad

country <i><fct></i>	2019`		2023`	Difference
	<i><dbl></i>	<i><dbl></i>	<i><dbl></i>	<i><dbl></i>
1 Burma/Myanmar	0.808	-2.96	-3.76	
2 Belarus	0.708	-2.18	-2.88	
3 Guyana	0.87	-1.63	-2.5	
4 Nicaragua	-1.24	-3.41	-2.17	
5 Central African Republic	0.195	-1.72	-1.91	
6 Haiti	0.739	-1.08	-1.82	
7 Azerbaijan	-1.63	-2.96	-1.33	
8 Slovenia	1.75	0.524	-1.23	
9 Zimbabwe	-1.56	-2.73	-1.18	
10 Guinea	0.303	-0.854	-1.16	
11 Eritrea	-1.94	-3.09	-1.15	
12 Mali	0.811	-0.33	-1.14	
13 Guatemala	-0.244	-1.33	-1.09	
14 Burkina Faso	0.542	-0.54	-1.08	
15 Slovakia	2.41	1.33	-1.08	
16 Lebanon	-0.454	-1.52	-1.07	
17 Cyprus	1.70	0.72	-0.976	
18 Costa Rica	2.03	1.08	-0.954	
19 Peru	2.10	1.15	-0.95	

20	Mongolia	1.47	0.57	-0.9
21	El Salvador	0.039	-0.84	-0.879
22	Russia	-1.95	-2.81	-0.857
23	Bulgaria	1.62	0.777	-0.846
24	Afghanistan	-1.66	-2.50	-0.843
25	Kyrgyzstan	0.762	0.031	-0.731

Transparency Report Data

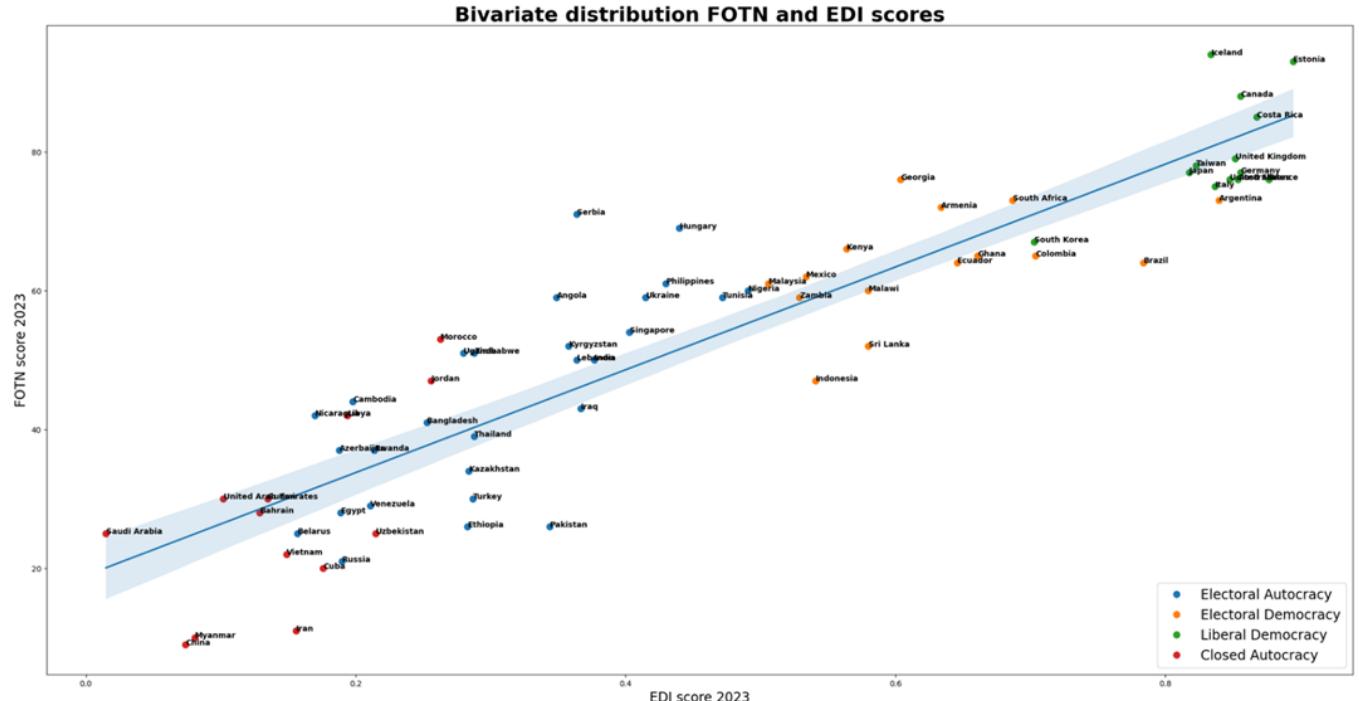
8 Evolution of Twitter removal requests per regime type for the years 2012–2021



Appendix B

Freedom on the Net Reports

9.1 Bivariate distribution of FOTN and EDI scores 2023



Residuals:

```
count    6.900000e+01
mean   -3.054602e-14
std     6.279144e-02
min    -1.269490e-01
25%    -4.194923e-02
50%    5.193792e-03
75%    3.314279e-02
max    1.709906e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.942			
Model:	OLS	Adj. R-squared:	0.939			
Method:	Least Squares	F-statistic:	261.2			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	7.15e-39			
Time:	13:59:54	Log-Likelihood:	93.585			
No. Observations:	69	AIC:	-177.2			
Df Residuals:	64	BIC:	-166.0			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.0220	0.026	0.858	0.394	-0.029	0.073
C(Political_regime)[T.Electoral Autocracy]	0.0770	0.025	3.114	0.003	0.028	0.126
C(Political_regime)[T.Electoral Democracy]	0.3029	0.035	8.673	0.000	0.233	0.373
C(Political_regime)[T.Liberal Democracy]	0.4406	0.044	10.047	0.000	0.353	0.528

FOTN_score	0.0047	0.001	6.988	0.000	0.003	0.006
<hr/>						
Omnibus:	1.223	Durbin-Watson:	2.045			
Prob(Omnibus):	0.543	Jarque-Bera (JB):	0.833			
Skew:	0.265	Prob(JB):	0.659			
Kurtosis:	3.091	Cond. No.	411.			
<hr/>						

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.9250781850547468

Robust regression model:

Robust linear Model Regression Results

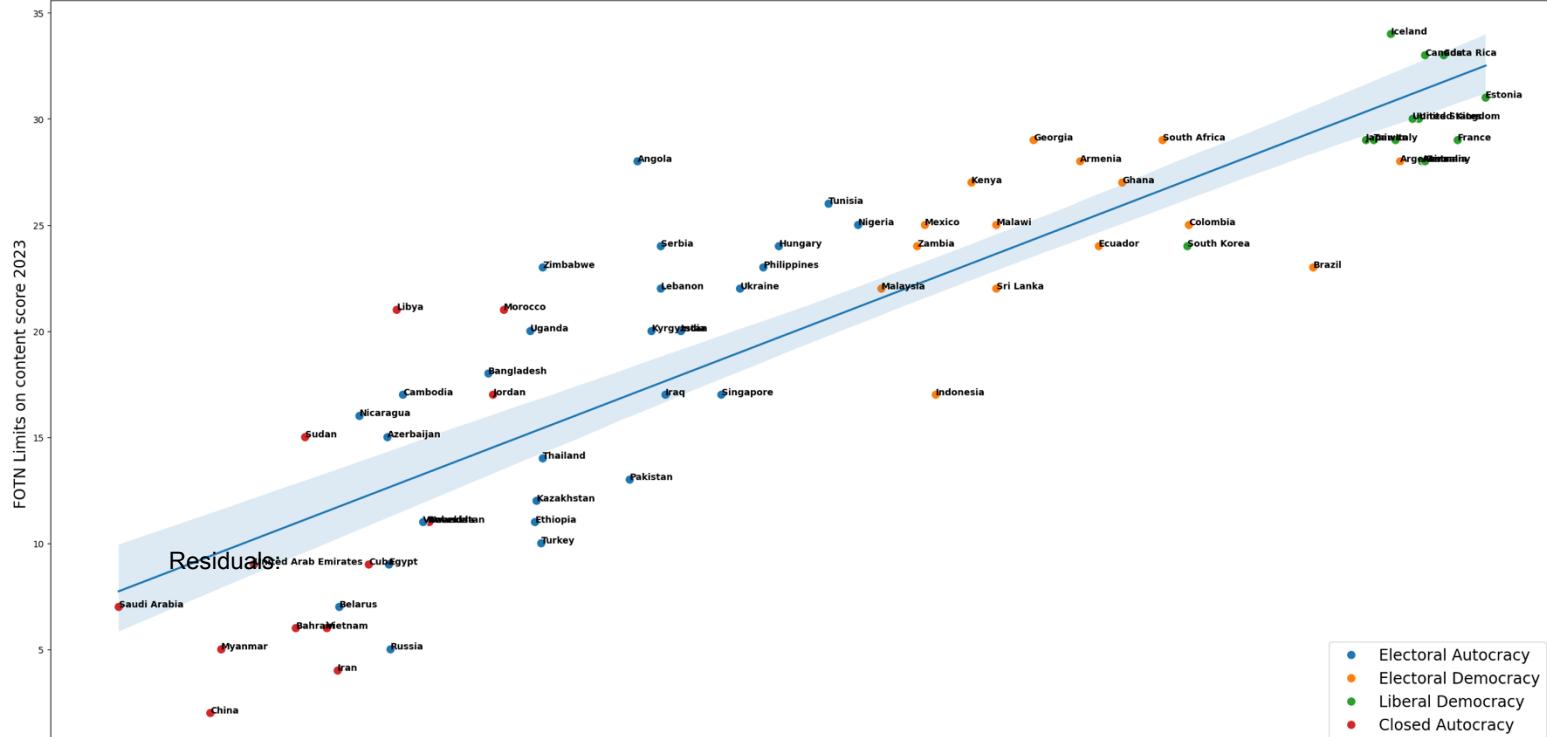
Dep. Variable:	EDI_score	No. Observations:	69
Model:	RLM	Df Residuals:	64
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	13:59:54		
No. Iterations:	14		

	coef	std err	z	P> z	[0.025	0.975]
<hr/>						
Intercept	0.0289	0.025	1.141	0.254	-0.021	0.078
C(Political_regime)[T.Electoral Autocracy]	0.0754	0.024	3.090	0.002	0.028	0.123
C(Political_regime)[T.Electoral Democracy]	0.2922	0.034	8.478	0.000	0.225	0.360
C(Political_regime)[T.Liberal Democracy]	0.4437	0.043	10.253	0.000	0.359	0.529
FOTN_score	0.0046	0.001	6.893	0.000	0.003	0.006

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

9.2 Bivariate distribution of FOTN Limits on content and EDI scores 2023

Bivariate distribution FOTN Limits on content and EDI scores



```

count    6.900000e+01
mean   -5.937280e-15
std     6.350725e-02
min    -1.268890e-01
25%    -4.626667e-02
50%    5.122755e-03
75%    3.950410e-02
max    1.817546e-01
dtype: float64

```

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.941			
Model:	OLS	Adj. R-squared:	0.937			
Method:	Least Squares	F-statistic:	255.0			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	1.47e-38			
Time:	13:59:54	Log-Likelihood:	92.802			
No. Observations:	69	AIC:	-175.6			
Df Residuals:	64	BIC:	-164.4			
Df Model:	4					
Covariance Type:	nonrobust					
=====						
	coef	std err	t	P> t	[0.025	0.975]
=====						
Intercept	0.0406	0.024	1.675	0.099	-0.008	0.089
C(Political_regime)[T.Electoral Autocracy]	0.0858	0.024	3.502	0.001	0.037	0.135
C(Political_regime)[T.Electoral Democracy]	0.3192	0.034	9.410	0.000	0.251	0.387
C(Political_regime)[T.Liberal Democracy]	0.4822	0.040	12.069	0.000	0.402	0.562
FOTN_limits_on_content_score	0.0107	0.002	6.804	0.000	0.008	0.014
=====						
Omnibus:	2.094	Durbin-Watson:	2.207			
Prob(Omnibus):	0.351	Jarque-Bera (JB):	1.434			
Skew:	0.325	Prob(JB):	0.488			
Kurtosis:	3.275	Cond. No.	145.			
=====						

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.9096604138570328

Robust regression model:

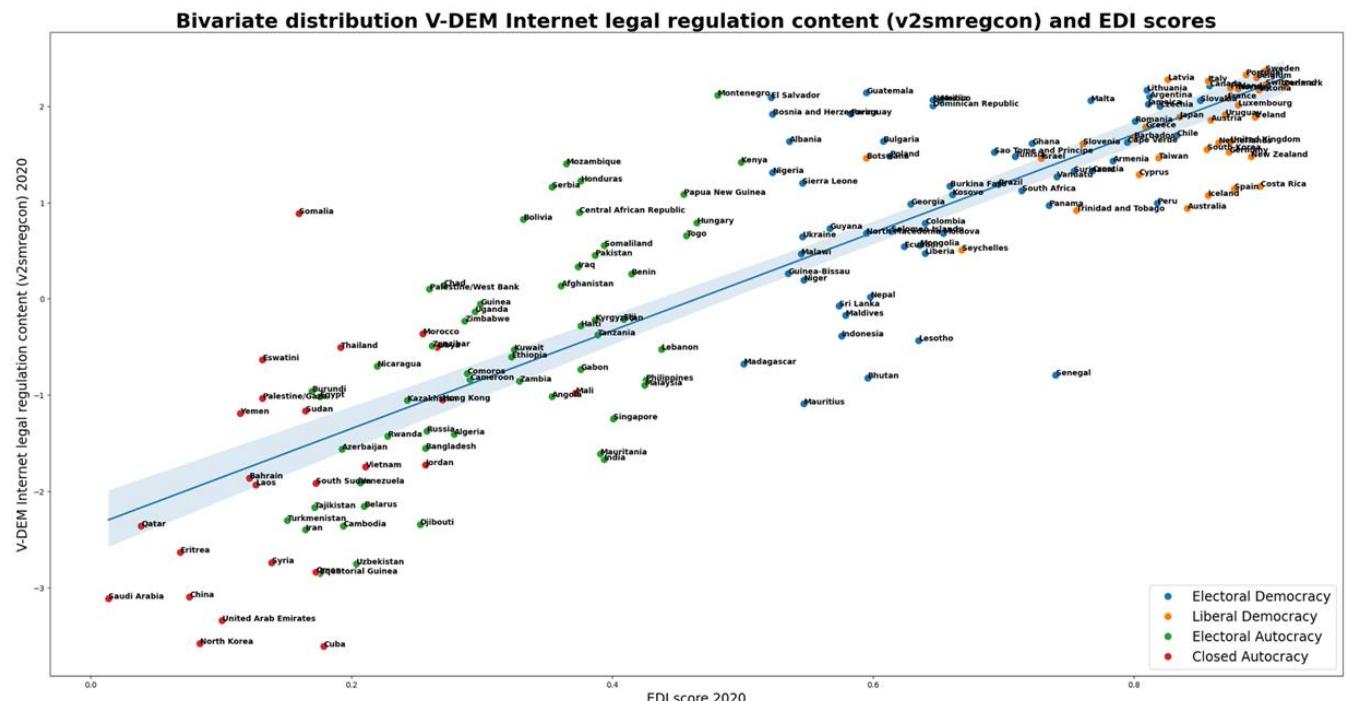
Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	69			
Model:	RLM	Df Residuals:	64			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	13:59:54					
No. Iterations:	19					
=====						
	coef	std err	z	P> z	[0.025	0.975]
=====						
Intercept	0.0441	0.024	1.859	0.063	-0.002	0.091
C(Political_regime)[T.Electoral Autocracy]	0.0883	0.024	3.678	0.000	0.041	0.135
C(Political_regime)[T.Electoral Democracy]	0.3054	0.033	9.186	0.000	0.240	0.371

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

V-Dem Data

10.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EDI score 2020



Residuals:

```
count    1.71000e+02
mean     2.986565e-16
std      7.443453e-02
min     -2.327631e-01
25%     -4.922989e-02
50%     3.891738e-03
75%     4.901394e-02
max     1.771622e-01
dtype: float64
```

OLS Regression Results

```
Dep. Variable: EDI_score R-squared: 0.918
Model: OLS Adj. R-squared: 0.916
Method: Least Squares F-statistic: 462.4
Date: Wed, 07 Aug 2024 Prob (F-statistic): 7.77e-89
Time: 14:00:06 Log-Likelihood: 202.09
No. Observations: 171 AIC: -394.2
Df Residuals: 166 BIC: -378.5
Df Model: 4
Covariance Type: nonrobust
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2547	0.019	13.572	0.000	0.218	0.292
C(Political_regime)[T.Electoral Autocracy]	0.0953	0.020	4.826	0.000	0.056	0.134
C(Political_regime)[T.Electoral Democracy]	0.3504	0.025	13.959	0.000	0.301	0.400
C(Political_regime)[T.Liberal Democracy]	0.4956	0.029	17.039	0.000	0.438	0.553
v2smregcon	0.0531	0.006	8.868	0.000	0.041	0.065

Omnibus: 0.937 Durbin-Watson: 1.796
 Prob(Omnibus): 0.626 Jarque-Bera (JB): 0.734
 Skew: -0.158 Prob(JB): 0.693
 Kurtosis: 3.061 Cond. No. 12.3De

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8507973766195018

Robust regression model:

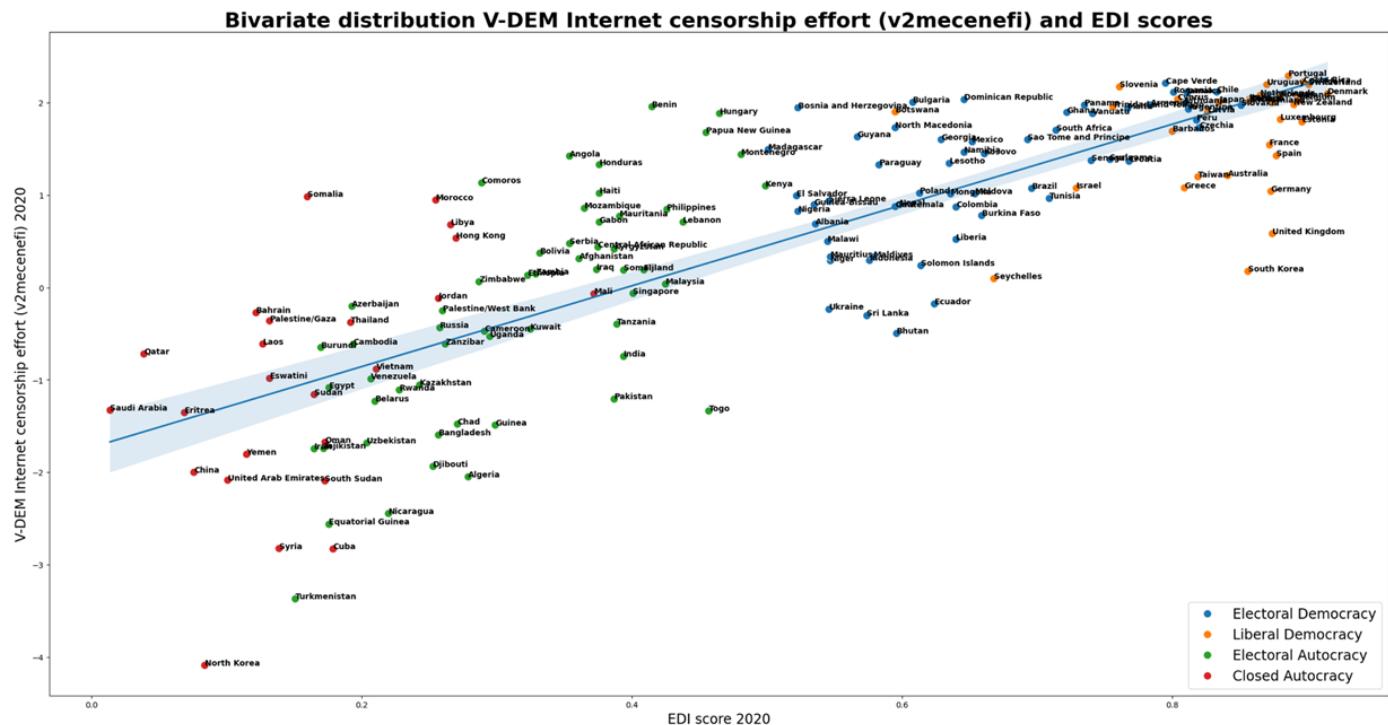
Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	171
Model:	RLM	Df Residuals:	166
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	14:00:06		
No. Iterations:	19		

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2588	0.019	13.772	0.000	0.222	0.296
C(Political_regime)[T.Electoral Autocracy]	0.0906	0.020	4.584	0.000	0.052	0.129
C(Political_regime)[T.Electoral Democracy]	0.3452	0.025	13.733	0.000	0.296	0.395
C(Political_regime)[T.Liberal Democracy]	0.4904	0.029	16.835	0.000	0.433	0.547
v2smregcon	0.0566	0.006	9.440	0.000	0.045	0.068

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

10.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EDI score 2020



Residuals:

```

count    1.710000e+02
mean     -4.733056e-16
std      7.244426e-02
min     -2.571123e-01
25%     -4.507757e-02
50%     3.329544e-03
75%     4.387731e-02
max      1.980425e-01
dtype: float64

```

OLS Regression Results

```

=====
Dep. Variable:      EDI_score    R-squared:          0.922
Model:              OLS         Adj. R-squared:       0.920
Method:             Least Squares F-statistic:     490.5
Date:              Wed, 07 Aug 2024 Prob (F-statistic): 8.68e-91
Time:              14:00:06 Log-Likelihood:      206.73
No. Observations:   171        AIC:                 -403.5
Df Residuals:       166        BIC:                 -387.7
Df Model:            4
Covariance Type:   nonrobust
=====
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2170	0.016	13.457	0.000	0.185	0.249
C(Political_regime)[T.Electoral Autocracy]	0.1175	0.018	6.383	0.000	0.081	0.154
C(Political_regime)[T.Electoral Democracy]	0.3746	0.022	16.826	0.000	0.331	0.419
C(Political_regime)[T.Liberal Democracy]	0.5277	0.025	20.850	0.000	0.478	0.578
v2mecenefi	0.0565	0.006	9.606	0.000	0.045	0.068

```

Omnibus:           2.931 Durbin-Watson:        1.869
Prob(Omnibus):    0.231 Jarque-Bera (JB):  2.501

```

Skew: -0.225 Prob(JB): 0.286
 Kurtosis: 3.385 Cond. No. 10.8

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8434800348610799

Robust regression model:

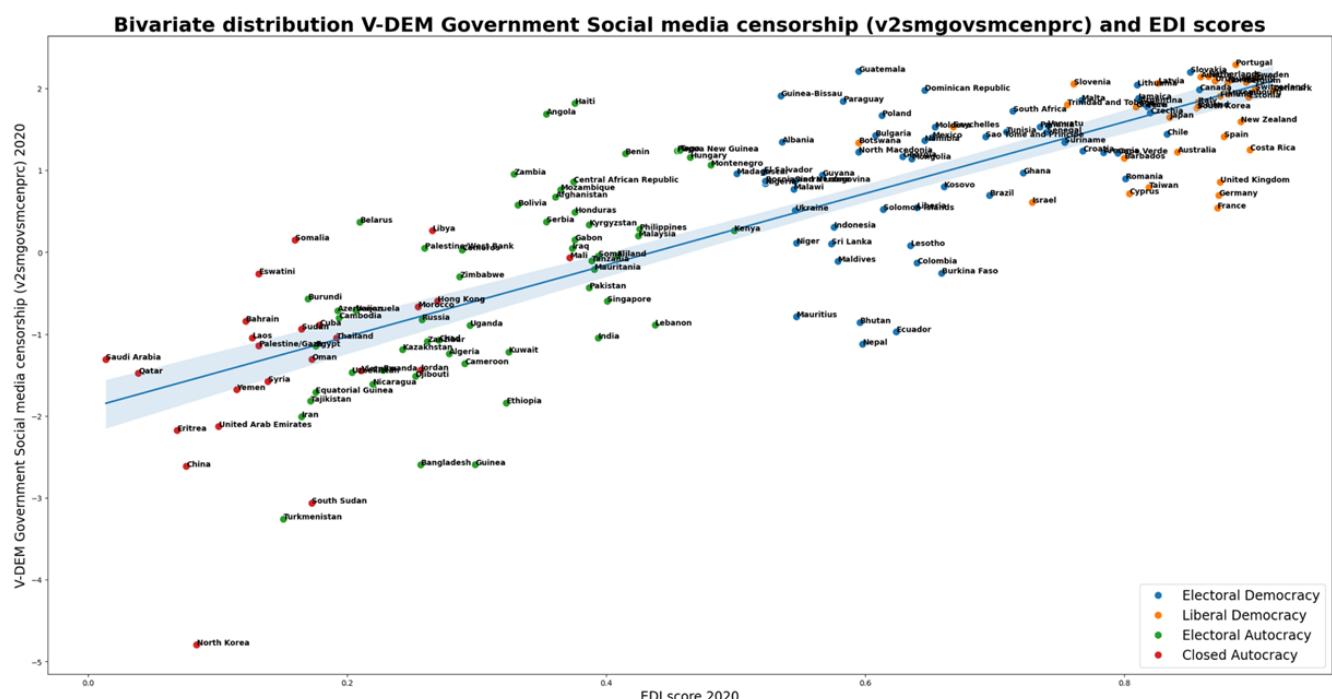
Robust linear Model Regression Results

Dep. Variable: EDI_score No. Observations: 171
 Model: RLM Df Residuals: 166
 Method: IRLS Df Model: 4
 Norm: HuberT
 Scale Est.: mad
 Cov Type: H1
 Date: Wed, 07 Aug 2024
 Time: 14:00:06
 No. Iterations: 19

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2180	0.017	12.955	0.000	0.185	0.251
C(Political_regime)[T.Electoral Autocracy]	0.1159	0.019	6.032	0.000	0.078	0.154
C(Political_regime)[T.Electoral Democracy]	0.3728	0.023	16.043	0.000	0.327	0.418
C(Political_regime)[T.Liberal Democracy]	0.5306	0.026	20.084	0.000	0.479	0.582
v2mecenefi	0.0577	0.006	9.403	0.000	0.046	0.070

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

10.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EDI score 2020



Residuals:

```
count    1.710000e+02
mean     -1.752984e-16
std      7.661196e-02
min     -2.315669e-01
25%     -4.783764e-02
50%      4.655040e-03
75%      5.530974e-02
max      1.496957e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.913			
Model:	OLS	Adj. R-squared:	0.911			
Method:	Least Squares	F-statistic:	434.2			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	9.27e-87			
Time:	14:00:06	Log-Likelihood:	197.16			
No. Observations:	171	AIC:	-384.3			
Df Residuals:	166	BIC:	-368.6			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2289	0.018	12.695	0.000	0.193	0.264
C(Political_regime)[T.Electoral Autocracy]	0.1108	0.020	5.579	0.000	0.072	0.150
C(Political_regime)[T.Electoral Democracy]	0.3796	0.024	15.646	0.000	0.332	0.427
C(Political_regime)[T.Liberal Democracy]	0.5283	0.028	18.774	0.000	0.473	0.584
v2smgovsmcenprc	0.0520	0.006	8.058	0.000	0.039	0.065
	2.718	Durbin-Watson:	1.849			
Prob(Omnibus):	0.257	Jarque-Bera (JB):	2.722			
Skew:	-0.265	Prob(JB):	0.256			
Kurtosis:	2.682	Cond. No.	10.7			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8326750264093878

Robust regression model:

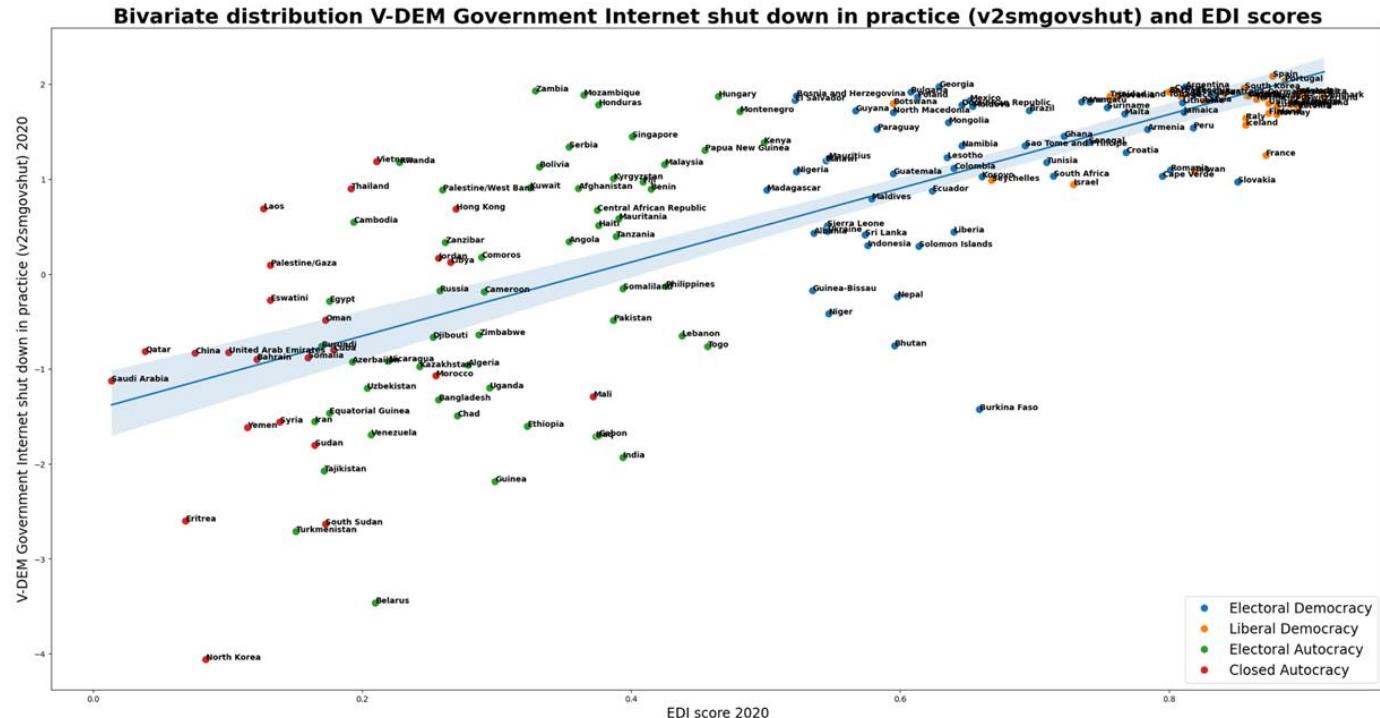
Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	171			
Model:	RLM	Df Residuals:	166			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	14:00:06					
No. Iterations:	20					
	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2285	0.019	11.903	0.000	0.191	0.266
C(Political_regime)[T.Electoral Autocracy]	0.1109	0.021	5.249	0.000	0.070	0.152

C(Political_regime)[T.Electoral Democracy]	0.3822	0.026	14.797	0.000	0.332	0.433
C(Political_regime)[T.Liberal Democracy]	0.5354	0.030	17.870	0.000	0.477	0.594
v2smgovsmcenprc	0.0515	0.007	7.496	0.000	0.038	0.065

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

10.4 Bivariate distribution of V-Dem Government Internet shut down in practice and (v2smgovshut) and EDI score 2020



Residuals:

```

count    1.710000e+02
mean     4.090295e-16
std      8.154495e-02
min     -2.482044e-01
25%     -5.899848e-02
50%     4.217211e-03
75%     5.335139e-02
max      2.313695e-01
dtype: float64

```

OLS Regression Results

```

Dep. Variable:      EDI_score    R-squared:          0.901
Model:              OLS         Adj. R-squared:      0.899
Method:             Least Squares F-statistic:       378.4
Date:              Wed, 07 Aug 2024 Prob (F-statistic):   2.89e-82
Time:              14:00:07 Log-Likelihood:        186.49
No. Observations:    171        AIC:                  -363.0
Df Residuals:        166        BIC:                 -347.3
Df Model:                   4
Covariance Type:    nonrobust

```

	coef	std err	t	P> t	[0.025	0.975]
--	------	---------	---	------	--------	--------

Intercept	0.1920	0.018	10.870	0.000	0.157	0.227
C(Political_regime)[T.Electoral Autocracy]	0.1329	0.021	6.453	0.000	0.092	0.173
C(Political_regime)[T.Electoral Democracy]	0.4232	0.024	17.735	0.000	0.376	0.470
C(Political_regime)[T.Liberal Democracy]	0.5798	0.028	21.020	0.000	0.525	0.634
v2smgovshut	0.0398	0.006	6.151	0.000	0.027	0.053

Omnibus: 0.031 Durbin-Watson: 1.936
 Prob(Omnibus): 0.985 Jarque-Bera (JB): 0.098
 Skew: 0.031 Prob(JB): 0.952
 Kurtosis: 2.900 Cond. No. 10.4

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.7763918247875301

Robust regression model:

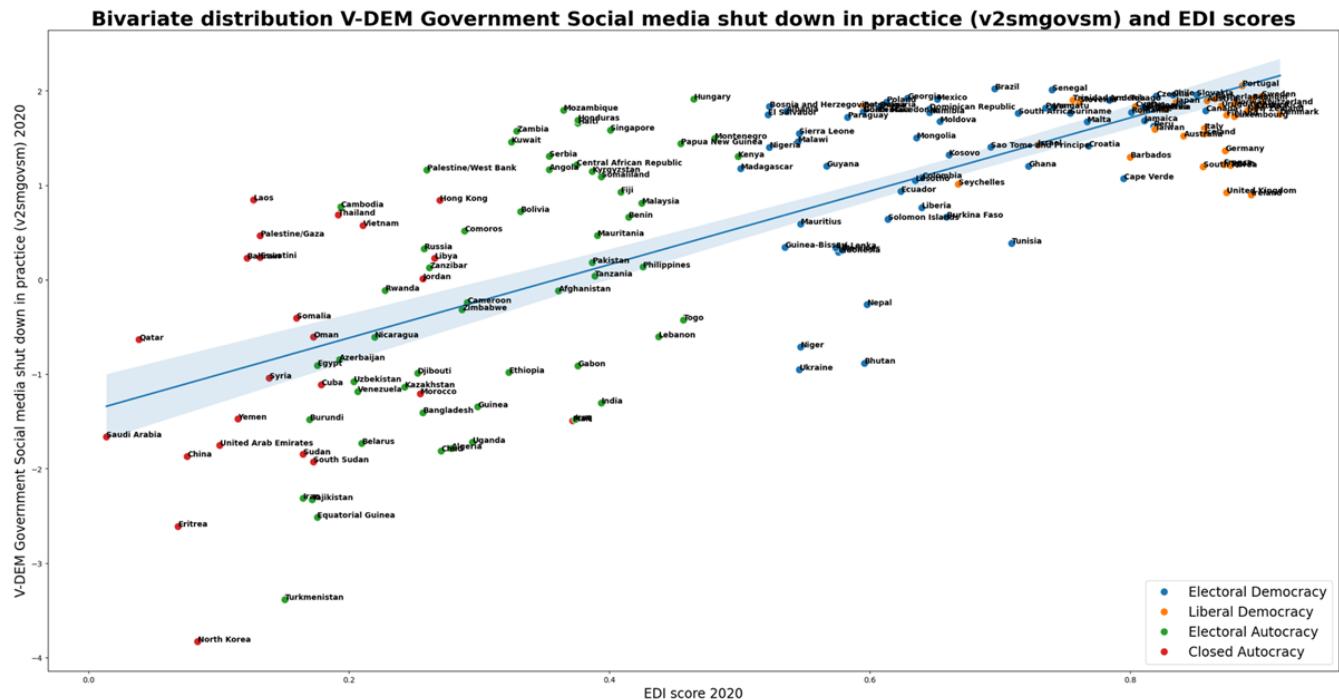
Robust linear Model Regression Results

Dep. Variable: EDI_score No. Observations: 171
 Model: RLM Df Residuals: 166
 Method: IRLS Df Model: 4
 Norm: HuberT
 Scale Est.: mad
 Cov Type: H1
 Date: Wed, 07 Aug 2024
 Time: 14:00:07
 No. Iterations: 19

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1889	0.019	10.062	0.000	0.152	0.226
C(Political_regime)[T.Electoral Autocracy]	0.1354	0.022	6.192	0.000	0.093	0.178
C(Political_regime)[T.Electoral Democracy]	0.4214	0.025	16.622	0.000	0.372	0.471
C(Political_regime)[T.Liberal Democracy]	0.5863	0.029	20.006	0.000	0.529	0.644
v2smgovshut	0.0410	0.007	5.975	0.000	0.028	0.054

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

10.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EDI score 2020



Residuals:

```
count    1.71000e+02
mean     7.920889e-17
std      7.944199e-02
min     -2.550044e-01
25%     -4.810018e-02
50%     -1.928608e-03
75%     5.013753e-02
max      2.425746e-01
dtype: float64
```

OLS Regression Results

Dep. Variable: EDI_score R-squared: 0.906
Model: OLS Adj. R-squared: 0.904
Method: Least Squares F-statistic: 400.9
Date: Wed, 07 Aug 2024 Prob (F-statistic): 3.79e-84
Time: 14:00:07 Log-Likelihood: 190.96
No. Observations: 171 AIC: -371.9
Df Residuals: 166 BIC: -356.2
Df Model: 4
Covariance Type: nonrobust

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1945	0.017	11.329	0.000	0.161	0.228
C(Political_regime)[T.Electoral Autocracy]	0.1292	0.020	6.431	0.000	0.090	0.169
C(Political_regime)[T.Electoral Democracy]	0.4109	0.024	17.447	0.000	0.364	0.457
C(Political_regime)[T.Liberal Democracy]	0.5757	0.026	21.885	0.000	0.524	0.628
v2smgovsm	0.0436	0.006	6.984	0.000	0.031	0.056

Omnibus:	0.374	Durbin-Watson:	1.895
Prob(Omnibus):	0.829	Jarque-Bera (JB):	0.130
Skew:	-0.017	Prob(JB):	0.937
Kurtosis:	3.131	Cond. No.	10.5

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.7682337433275997

Robust regression model:

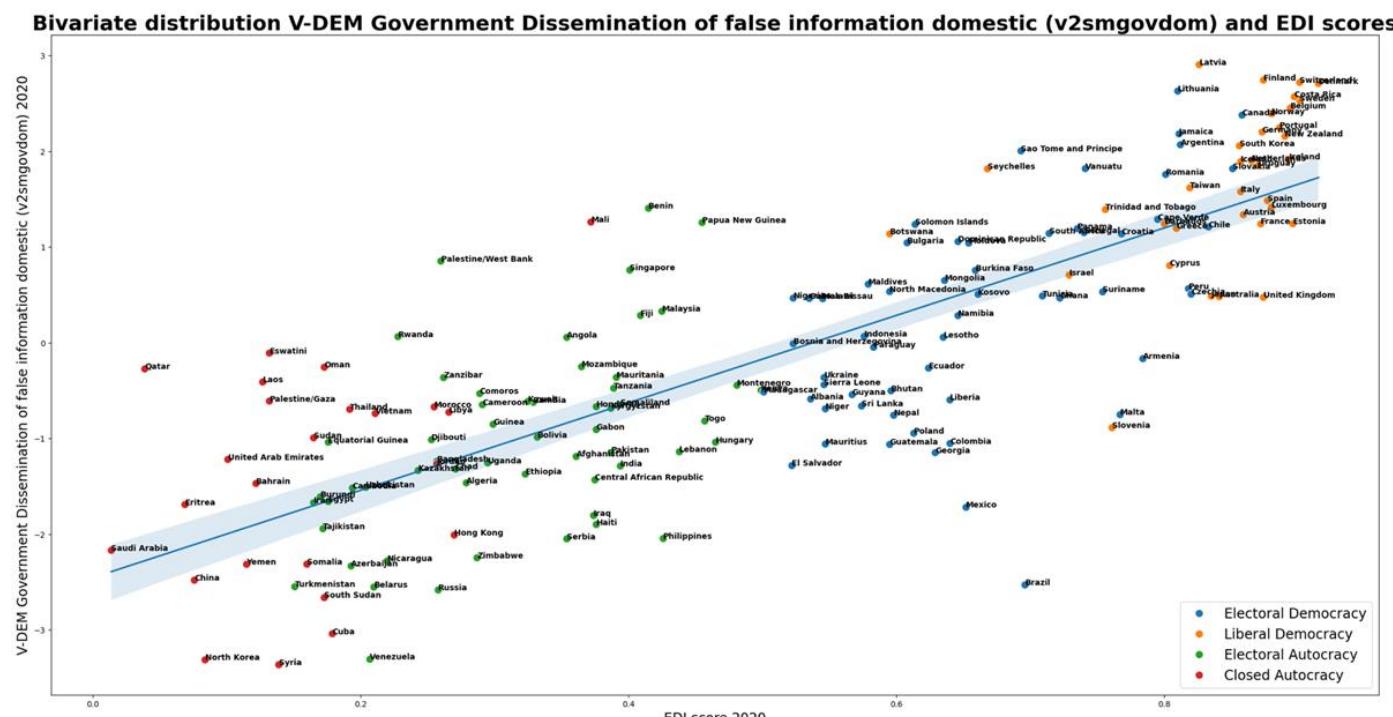
Robust linear Model Regression Results

Dep. Variable: EDI_score No. Observations: 171
Model: RLM Df Residuals: 166
Method: IRLS Df Model: 4
Norm: HuberT
Scale Est.: mad
Cov Type: H1
Date: Wed, 07 Aug 2024
Time: 14:00:07
No. Iterations: 20

	coef	std err	z	P> z	[0.025	0.975]	
Intercept	0.1893	0.017	10.846	0.000	0.155	0.223	
C(Political_regime)[T.Electoral Autocracy]	0.1330	0.020	6.516	0.000	0.093	0.173	
C(Political_regime)[T.Electoral Democracy]	0.4129	0.024	17.247	0.000	0.366	0.460	
C(Political_regime)[T.Liberal Democracy]	0.5863	0.027	21.926	0.000	0.534	0.639	
v2smgovsm	0.0445	0.006	7.021	0.000	0.032	0.057	

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

10.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EDI score 2020



Residuals:

```
count    1.710000e+02
mean     -3.700743e-17
std      7.735138e-02
min     -2.227994e-01
25%     -5.413352e-02
50%      4.135708e-03
75%      4.933776e-02
max      1.662712e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.911			
Model:	OLS	Adj. R-squared:	0.909			
Method:	Least Squares	F-statistic:	425.1			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	4.56e-86			
Time:	14:00:08	Log-Likelihood:	195.52			
No. Observations:	171	AIC:	-381.0			
Df Residuals:	166	BIC:	-365.3			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2242	0.018	12.438	0.000	0.189	0.260
C(Political_regime)[T.Electoral Autocracy]	0.1427	0.019	7.426	0.000	0.105	0.181
C(Political_regime)[T.Electoral Democracy]	0.4231	0.022	19.577	0.000	0.380	0.466
C(Political_regime)[T.Liberal Democracy]	0.5408	0.028	19.543	0.000	0.486	0.595
v2smgovdom	0.0464	0.006	7.781	0.000	0.035	0.058
	coef	std err	t	P> t	[0.025	0.975]
Omnibus:	0.804	Durbin-Watson:	1.957			
Prob(Omnibus):	0.669	Jarque-Bera (JB):	0.920			
Skew:	-0.109	Prob(JB):	0.631			
Kurtosis:	2.715	Cond. No.	10.1			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.796874690685349

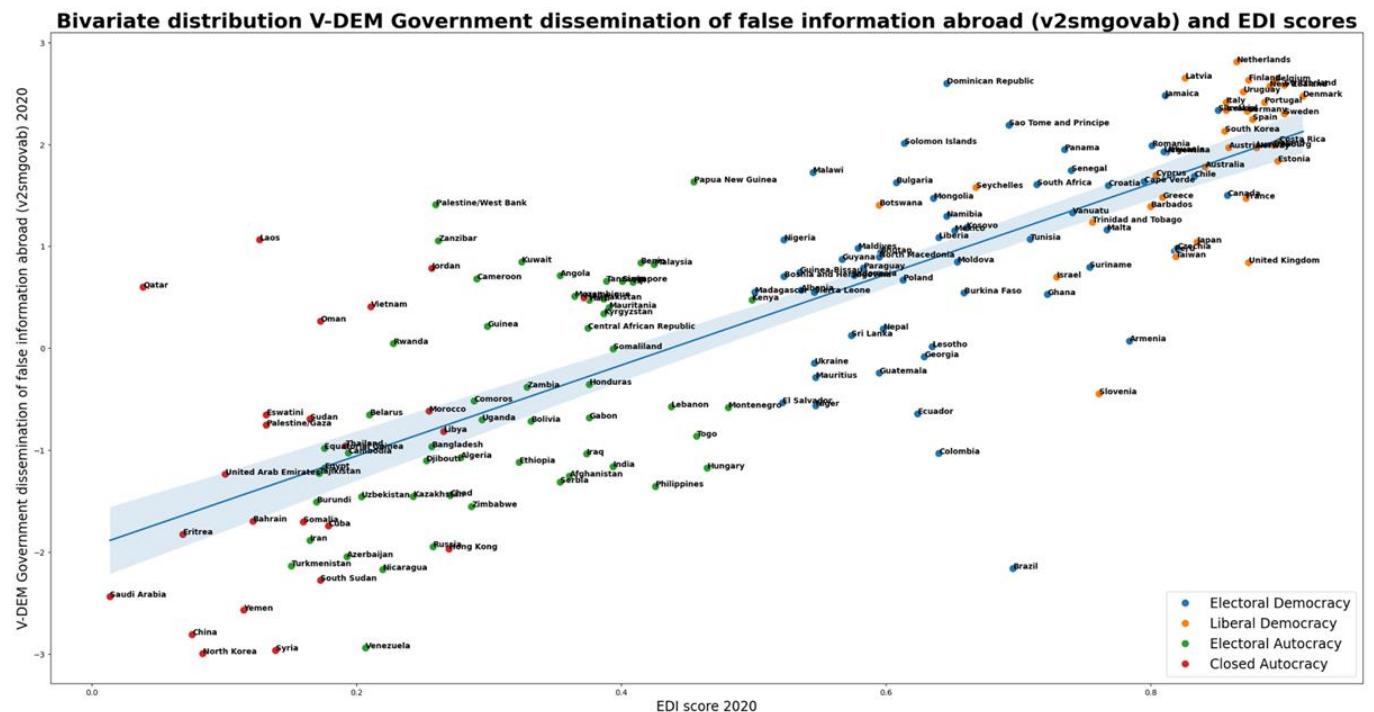
Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	171			
Model:	RLM	Df Residuals:	166			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	14:00:08					
No. Iterations:	18					
	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2293	0.018	12.508	0.000	0.193	0.265
C(Political_regime)[T.Electoral Autocracy]	0.1389	0.020	7.107	0.000	0.101	0.177

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

10.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EDI score 2020



Residuals:

```
count    1.710000e+02
mean     7.466412e-17
std      7.963244e-02
min     -2.255466e-01
25%     -5.347371e-02
50%     3.834004e-03
75%     4.683625e-02
max     1.750047e-01
dtype: float64
```

OLS Regression Results

Intercept	0.2091	0.018	11.643	0.000	0.174	0.245	
C(Political_regime)[T.Electoral Autocracy]	0.1327	0.020	6.626	0.000	0.093	0.172	
C(Political_regime)[T.Electoral Democracy]	0.4128	0.024	17.551	0.000	0.366	0.459	
C(Political_regime)[T.Liberal Democracy]	0.5496	0.029	19.081	0.000	0.493	0.606	
v2smgovab	0.0441	0.006	6.910	0.000	0.031	0.057	
<hr/>							
Omnibus:	0.070	Durbin-Watson:	2.048				
Prob(Omnibus):	0.965	Jarque-Bera (JB):	0.207				
Skew:	-0.015	Prob(JB):	0.902				
Kurtosis:	2.832	Cond. No.	10.5				
<hr/>							

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8195535955949647

Robust regression model:

Robust linear Model Regression Results

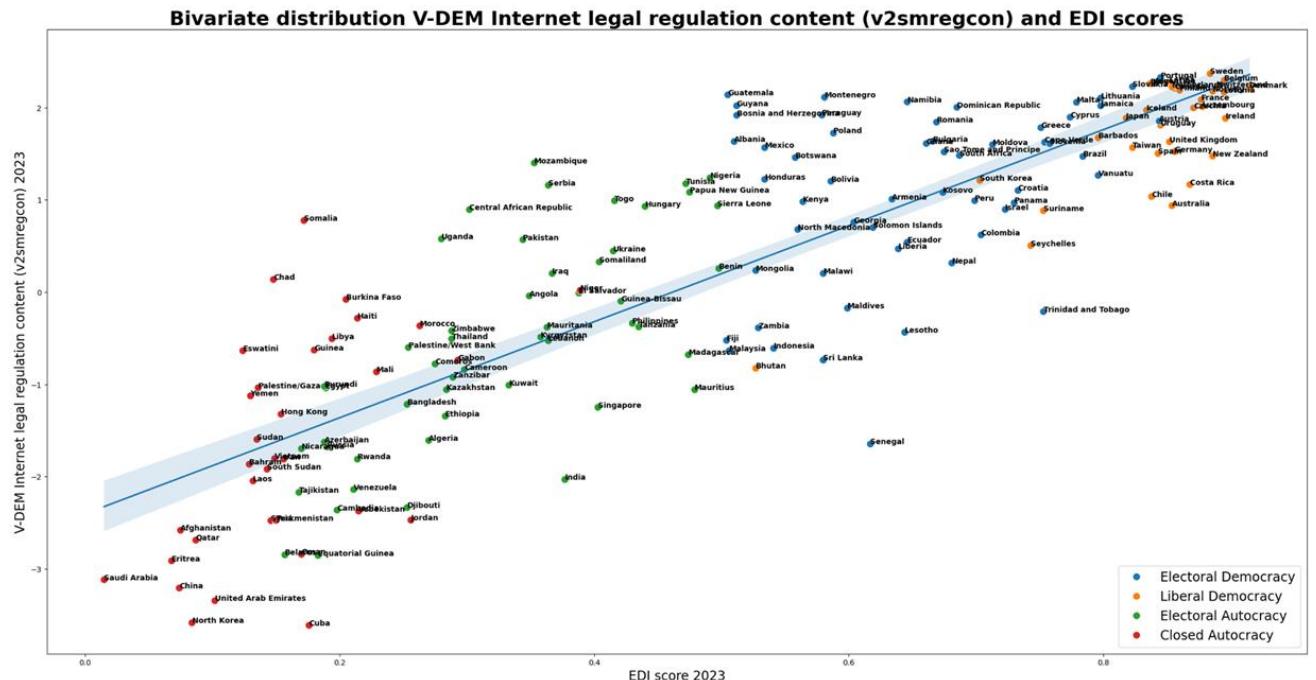
Dep. Variable:	EDI_score	No. Observations:	171
Model:	RLM	Df Residuals:	166
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	14:00:08		
No. Iterations:	21		

	coef	std err	z	P> z	[0.025	0.975]
--	------	---------	---	------	--------	--------

Intercept	0.2163	0.018	11.699	0.000	0.180	0.253	
C(Political_regime)[T.Electoral Autocracy]	0.1240	0.021	6.010	0.000	0.084	0.164	
C(Political_regime)[T.Electoral Democracy]	0.3976	0.024	16.423	0.000	0.350	0.445	
C(Political_regime)[T.Liberal Democracy]	0.5409	0.030	18.243	0.000	0.483	0.599	
v2smgovab	0.0480	0.007	7.308	0.000	0.035	0.061	

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.1 Bivariate distribution of V-Dem Internet legal regulation content (v2smregcon) and EDI score 2023



Residuals:

```
count    1.710000e+02  
mean     1.623133e-16  
std      7.495512e-02  
min     -2.034929e-01  
25%     -4.264546e-02  
50%     -4.142606e-03  
75%     4.995242e-02  
max      1.762599e-01  
dtype: float64
```

OLS Regression Results

=====
Dep. Variable: EDI_score R-squared: 0.918
Model: OLS Adj. R-squared: 0.916
Method: Least Squares F-statistic: 463.9
Date: Wed, 07 Aug 2024 Prob (F-statistic): 6.06e-89
Time: 14:00:09 Log-Likelihood: 200.90
No. Observations: 171 AIC: -391.8
Df Residuals: 166 BIC: -376.1
Df Model: 4
Covariance Type: nonrobust

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2478	0.016	15.150	0.000	0.215	0.28
C(Political_regime)[T.Electoral Autocracy]	0.1101	0.018	6.065	0.000	0.0	0.
C(Political_regime)[T.Electoral Democracy]	0.3493	0.023	15.135	0.000	0.0	0.
C(Political_regime)[T.Liberal Democracy]	0.5022	0.027	18.507	0.000	0.0	0.
v2smreqcon	0.0521	0.006	9.054	0.000	0.041	0.

Omnibus:	0.679	Durbin-Watson:	1.909
Prob(Omnibus):	0.712	Jarque-Bera (JB):	0.611
Skew:	-0.146	Prob(JB):	0.737
Kurtosis:	2.971	Cond. No.	11.2

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8552359604241441

Robust regression model:

Robust linear Model Regression Results

Dep. Variable: EDI score No. Observations: 171

Model: RLM Df Residuals: 166

Method: IBLS Df Model: 4

Method: HuberT

Scale Est : mad

Copy Type: H1

Date: Wed, 07 Aug 2024

Date: Wed, 07 Aug 2013
Time: 14:00:00

Time: 14.00.09
No Iterations: 34

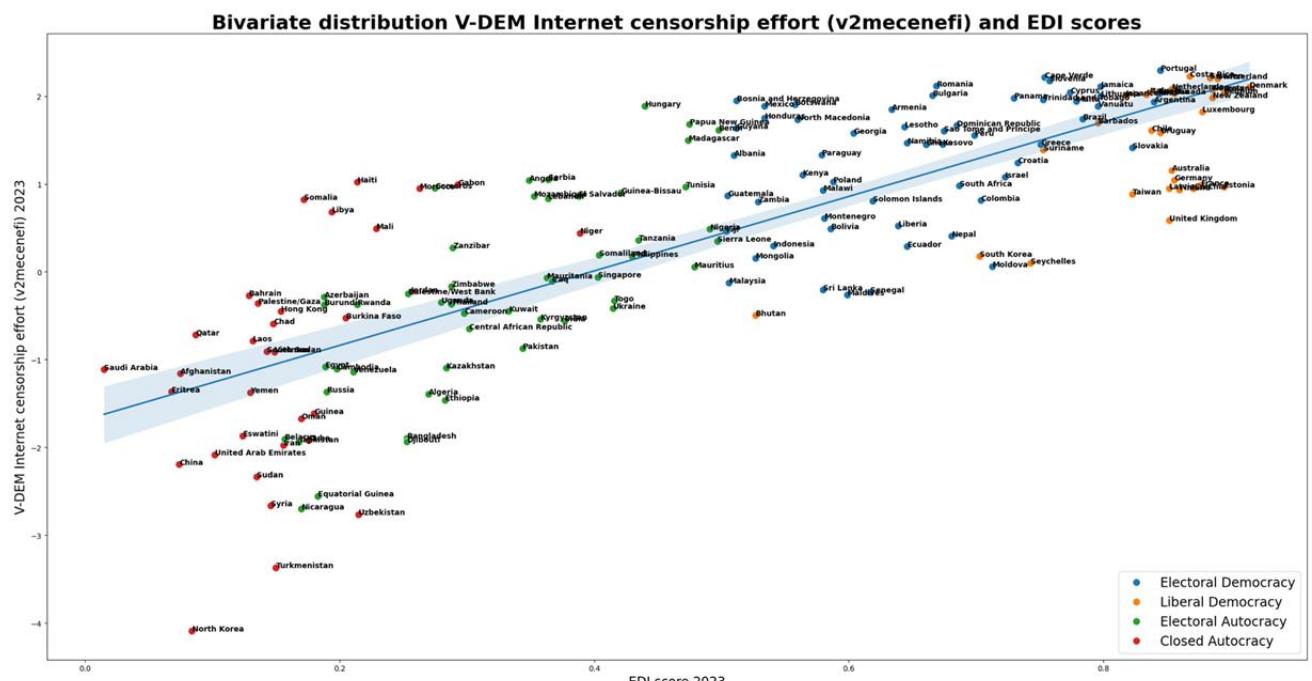
No. iterations.

coef	std err	z	P> z	[0.025	0.975]
------	---------	---	------	--------	--------

Intercept	0.2512	0.016	15.334	0.000	0.219	0.283	
C(Political_regime)[T.Electoral Autocracy]	0.1042	0.018	5.732	0.000	0.069	0.140	
C(Political_regime)[T.Electoral Democracy]	0.3500	0.023	15.135	0.000	0.305	0.395	
C(Political_regime)[T.Liberal Democracy]	0.4962	0.027	18.254	0.000	0.443	0.549	
v2smreqcon	0.0558	0.006	9.683	0.000	0.045	0.067	

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.2 Bivariate distribution of V-Dem Internet censorship effort (v2mecenefi) and EDI score 2023



Residuals:

count 1.71000e+02

mean 7.304099e-17

mean 7.304099e-02
std 7.425928e-02

std 7.42592e-02
min -2.018229e-01

25% -5.250018e-02
 50% 2.151721e-03
 75% 5.126808e-02
 max 1.607555e-01
 dtype: float64

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.919				
Model:	OLS	Adj. R-squared:	0.917				
Method:	Least Squares	F-statistic:	473.4				
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	1.29e-89				
Time:	14:00:09	Log-Likelihood:	202.50				
No. Observations:	171	AIC:	-395.0				
Df Residuals:	166	BIC:	-379.3				
Df Model:	4						
Covariance Type:	nonrobust						
	coef	std err	t	P> t	[0.025	0.975]	
Intercept	0.2179	0.014	15.061	0.000	0.189	0.246	
C(Political_regime)[T.Electoral Autocracy]	0.1236	0.017	7.063	0.000	0.089	0.158	
C(Political_regime)[T.Electoral Democracy]	0.3656	0.021	17.007	0.000	0.323	0.408	
C(Political_regime)[T.Liberal Democracy]	0.5387	0.024	22.432	0.000	0.491	0.586	
v2mecenefi	0.0558	0.006	9.308	0.000	0.044	0.068	
Omnibus:	1.320	Durbin-Watson:	1.782				
Prob(Omnibus):	0.517	Jarque-Bera (JB):	1.390				
Skew:	-0.160	Prob(JB):	0.499				
Kurtosis:	2.695	Cond. No.	9.48				

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8192487347837611

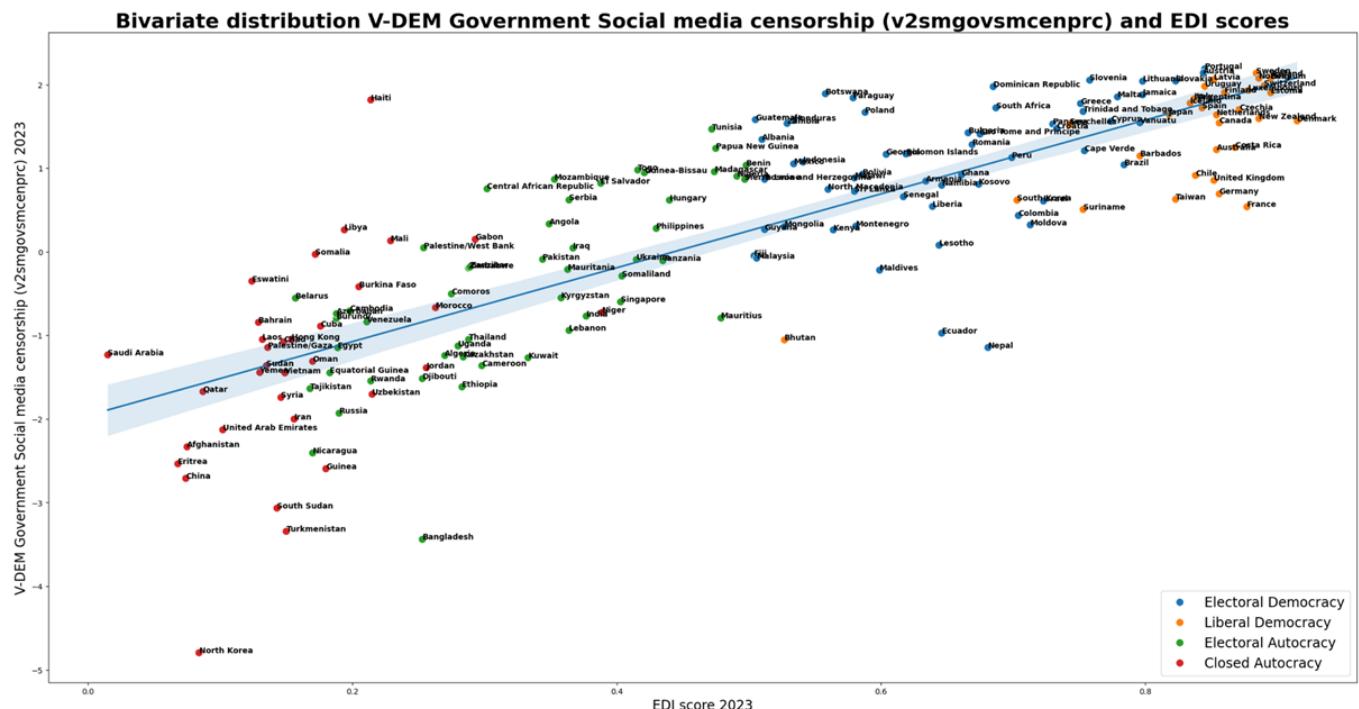
Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	171				
Model:	RLM	Df Residuals:	166				
Method:	IRLS	Df Model:	4				
Norm:	HuberT						
Scale Est.:	mad						
Cov Type:	H1						
Date:	Wed, 07 Aug 2024						
Time:	14:00:09						
No. Iterations:	18						
	coef	std err	z	P> z	[0.025	0.975]	
Intercept	0.2149	0.015	14.447	0.000	0.186	0.244	
C(Political_regime)[T.Electoral Autocracy]	0.1263	0.018	7.022	0.000	0.091	0.162	
C(Political_regime)[T.Electoral Democracy]	0.3727	0.022	16.861	0.000	0.329	0.416	
C(Political_regime)[T.Liberal Democracy]	0.5460	0.025	22.112	0.000	0.498	0.594	
v2mecenefi	0.0551	0.006	8.945	0.000	0.043	0.067	

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.3 Bivariate distribution of V-Dem Government Social media censorship (v2smgovsmcenprc) and EDI score 2023



Residuals:

```
count    1.710000e+02
mean     5.518652e-18
std      7.568934e-02
min     -1.777462e-01
25%    -4.881528e-02
50%    1.820412e-03
75%    5.634377e-02
max     1.938016e-01
dtype: float64
```

OIS Regression Results

```

=====
Dep. Variable: EDI_score R-squared:      0.916
Model:           OLS   Adj. R-squared:    0.914
Method:          Least Squares F-statistic:   454.2
Date:     Wed, 07 Aug 2024 Prob (F-statistic): 3.05e-88
Time:     14:00:09 Log-Likelihood:       199.23
No. Observations: 171   AIC:             -388.5
Df Residuals:    166   BIC:            -372.8
Df Model:        4
Covariance Type: nonrobust
=====
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2353	0.016	14.867	0.000	0.204	0.267
C(Political_regime)[T.Electoral Autocracy]	0.1147	0.018	6.304	0.000	0.079	0.151
C(Political_regime)[T.Electoral Democracy]	0.3600	0.023	15.859	0.000	0.315	0.405
C(Political_regime)[T.Liberal Democracy]	0.5244	0.026	20.229	0.000	0.473	0.576
v2smqovsmcenprc	0.0553	0.006	8.786	0.000	0.043	0.068

```
=====
Omnibus:           1.656 Durbin-Watson:        1.934
Prob(Omnibus):    0.437 Jarque-Bera (JB):   1.568
Skew:             -0.135 Prob(JB):          0.457
Kurtosis:         2.616 Cond. No.          9.67
=====
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8370174679896615

Robust regression model:

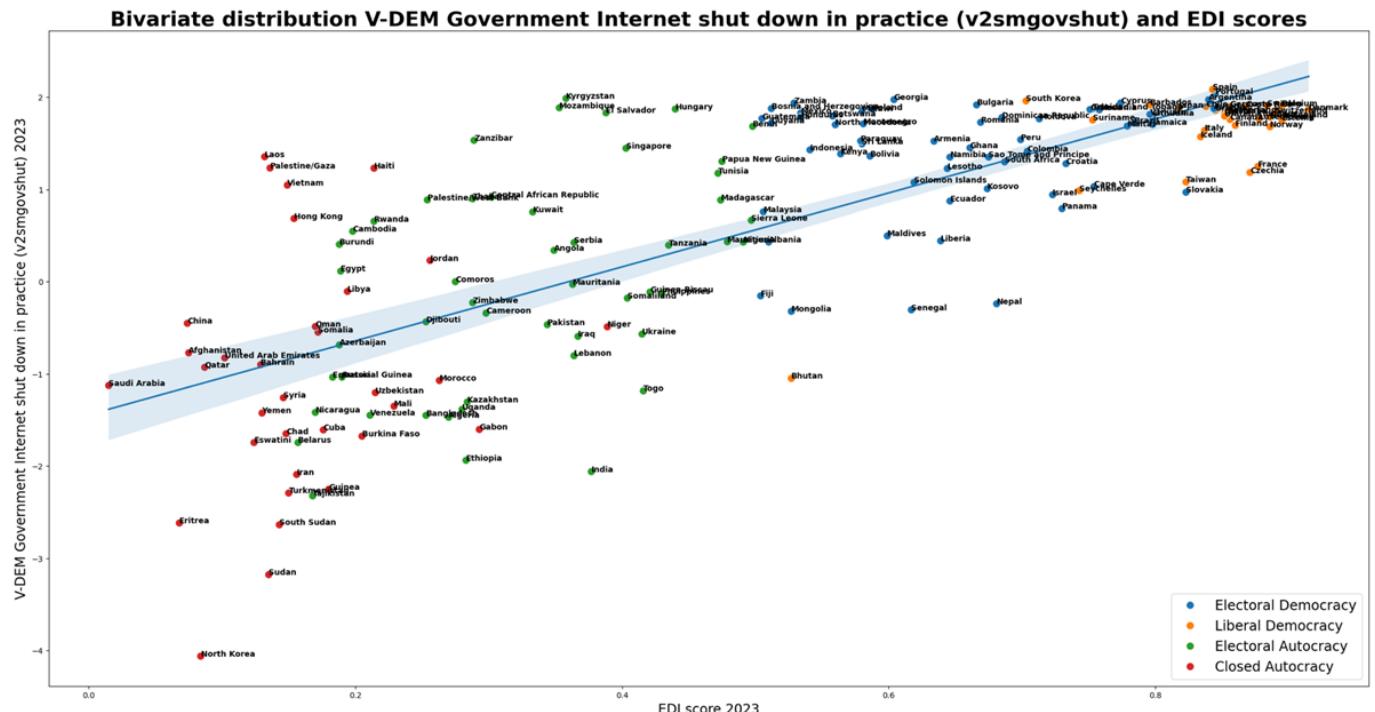
Robust linear Model Regression Results

```
=====
Dep. Variable: EDI_score No. Observations:      171
Model:          RLM Df Residuals:        166
Method:         IRLS Df Model:          4
Norm:           HuberT
Scale Est.:     mad
Cov Type:      H1
Date:          Wed, 07 Aug 2024
Time:          14:00:10
No. Iterations: 16
=====
```

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2342	0.016	14.326	0.000	0.202	0.266
C(Political_regime)[T.Electoral Autocracy]	0.1164	0.019	6.192	0.000	0.080	0.153
C(Political_regime)[T.Electoral Democracy]	0.3644	0.023	15.538	0.000	0.318	0.410
C(Political_regime)[T.Liberal Democracy]	0.5277	0.027	19.703	0.000	0.475	0.580
v2smgovsmcenprc	0.0554	0.007	8.515	0.000	0.043	0.068

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.4 Bivariate distribution of V-Dem Government Internet shut down in practice (v2smgovshut) and EDI score 2023



Residuals:

```
count    1.710000e+02
mean     2.217200e-16
std      8.581410e-02
min     -2.187350e-01
25%    -7.035267e-02
50%     4.027165e-03
75%     5.289428e-02
max     2.094150e-01
dtype: float64
```

OLS Regression Results

```
=====
Dep. Variable:          EDI_score    R-squared:       0.892
Model:                 OLS         Adj. R-squared:  0.890
Method:                Least Squares F-statistic:   344.1
Date:                  Wed, 07 Aug 2024 Prob (F-statistic): 3.34e-79
Time:                  14:00:10 Log-Likelihood:     177.77
No. Observations:      171        AIC:             -345.5
Df Residuals:          166        BIC:             -329.8
Df Model:               4
Covariance Type:       nonrobust
=====
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1964	0.017	11.645	0.000	0.163	0.230
C(Political_regime)[T.Electoral Autocracy]	0.1319	0.021	6.334	0.000	0.091	0.173
C(Political_regime)[T.Electoral Democracy]	0.4112	0.026	15.990	0.000	0.360	0.462
C(Political_regime)[T.Liberal Democracy]	0.5854	0.029	20.192	0.000	0.528	0.643
v2smgovshut	0.0344	0.007	4.815	0.000	0.020	0.049

```
=====
Omnibus:            4.304 Durbin-Watson:      2.037
Prob(Omnibus):      0.116 Jarque-Bera (JB): 2.579
Skew:              -0.039 Prob(JB):        0.275
Kurtosis:           2.403 Cond. No.        10.3
=====
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.7632232639772659

Robust regression model:

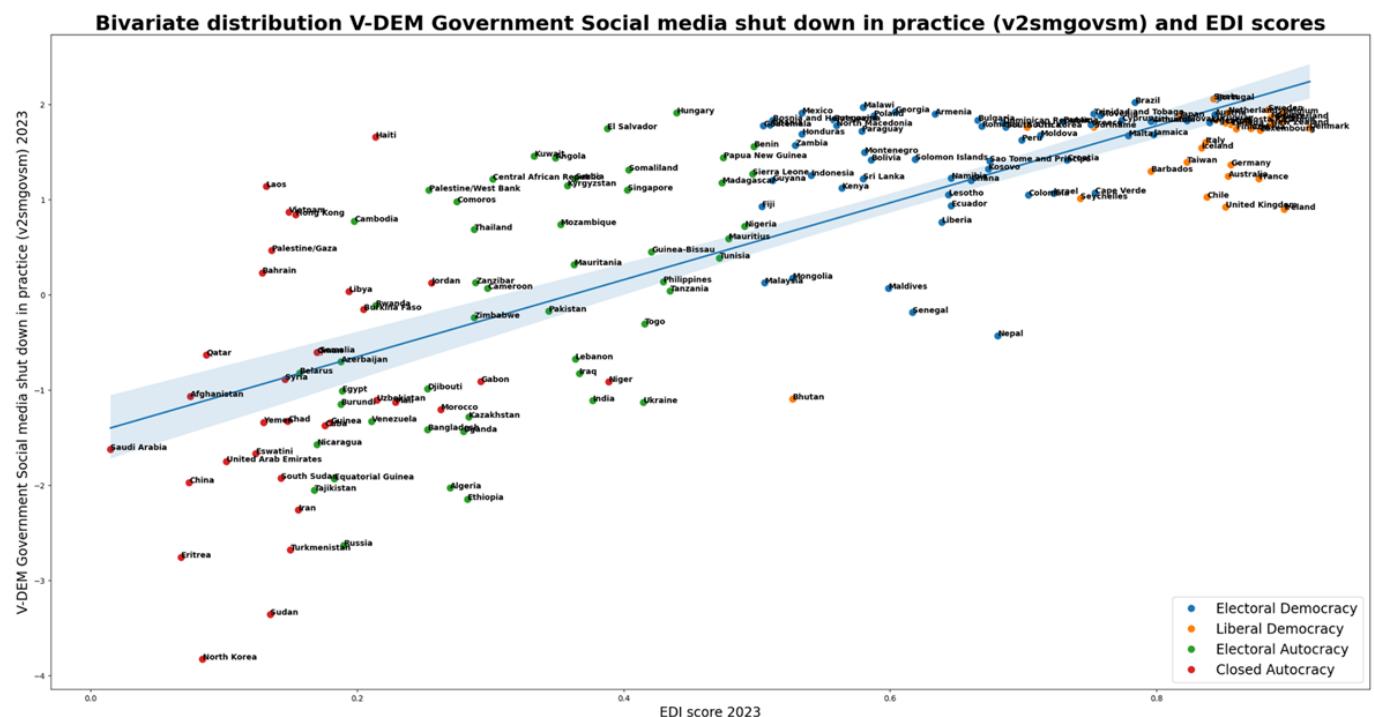
Robust linear Model Regression Results

Dep. Variable: EDI_score No. Observations: 171
 Model: RLM Df Residuals: 166
 Method: IRLS Df Model: 4
 Norm: HuberT
 Scale Est.: mad
 Cov Type: H1
 Date: Wed, 07 Aug 2024
 Time: 14:00:10
 No. Iterations: 16

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1911	0.018	10.476	0.000	0.155	0.222
C(Political_regime)[T.Electoral Autocracy]	0.1376	0.023	6.112	0.000	0.000	0.000
C(Political_regime)[T.Electoral Democracy]	0.4180	0.028	15.029	0.000	0.000	0.000
C(Political_regime)[T.Liberal Democracy]	0.5983	0.031	19.082	0.000	0.000	0.000
v2smgovshut	0.0323	0.008	4.183	0.000	0.017	0.000

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.5 Bivariate distribution of V-Dem Government Social media shut down in practice (v2smgovsm) and EDI score 2023



Residuals:

count	1.710000e+02
mean	3.161863e-16
std	8.227494e-02
min	-1.995447e-01
25%	-6.927363e-02
50%	5.698090e-03
75%	5.536680e-02
max	2.248433e-01
dtype:	float64

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.901			
Model:	OLS	Adj. R-squared:	0.899			
Method:	Least Squares	F-statistic:	378.0			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	3.10e-82			
Time:	14:00:10	Log-Likelihood:	184.97			
No. Observations:	171	AIC:	-359.9			
Df Residuals:	166	BIC:	-344.2			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2032	0.016	12.698	0.000	0.172	0.235
C(Political_regime)[T.Electoral Autocracy]	0.1262	0.020	6.383	0.000	0.087	0.165
C(Political_regime)[T.Electoral Democracy]	0.3904	0.025	15.875	0.000	0.342	0.439
C(Political_regime)[T.Liberal Democracy]	0.5701	0.027	21.171	0.000	0.517	0.623
v2smgovsm	0.0426	0.007	6.310	0.000	0.029	0.056
	2.582	Durbin-Watson:	2.015			
Prob(Omnibus):	0.275	Jarque-Bera (JB):	1.844			
Skew:	-0.017	Prob(JB):	0.398			
Kurtosis:	2.492	Cond. No.	10.1			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.774474274125811

Robust regression model:

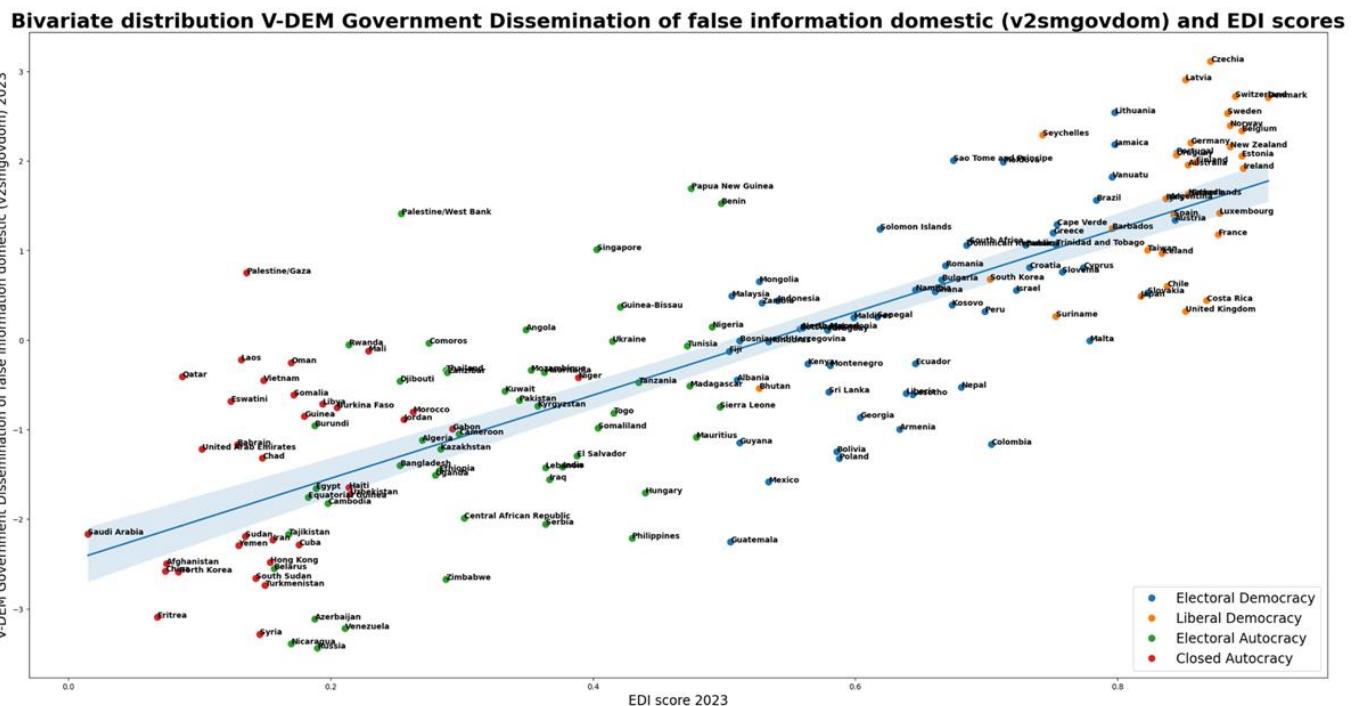
Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	171			
Model:	RLM	Df Residuals:	166			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	14:00:10					
No. Iterations:	15					
	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1986	0.017	11.617	0.000	0.165	0.232
C(Political_regime)[T.Electoral Autocracy]	0.1316	0.021	6.229	0.000	0.090	0.173

C(Political_regime)[T.Electoral Democracy]	0.3965	0.026	15.093	0.000	0.345	0.448
C(Political_regime)[T.Liberal Democracy]	0.5801	0.029	20.166	0.000	0.524	0.636
v2smgovsm	0.0412	0.007	5.707	0.000	0.027	0.055
<hr/>						
<hr/>						

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.6 Bivariate distribution of V-Dem Government Dissemination of false information domestic (v2smgovdom) and EDI score 2023



Residuals:

```

count    1.710000e+02
mean     1.535484e-16
std      7.528614e-02
min     -2.040774e-01
25%     -4.745958e-02
50%     -1.205180e-04
75%     5.217507e-02
max      1.774095e-01
dtype: float64

```

OLS Regression Results

```

Dep. Variable:      EDI_score    R-squared:          0.917
Model:              OLS         Adj. R-squared:      0.915
Method:             Least Squares F-statistic:       459.5
Date:              Wed, 07 Aug 2024 Prob (F-statistic): 1.26e-88
Time:              14:00:11 Log-Likelihood:     200.15
No. Observations:   171        AIC:                 -390.3
Df Residuals:       166        BIC:                 -374.6
Df Model:            4
Covariance Type:   nonrobust

```

	coef	std err	t	P> t	[0.025	0.975]
--	------	---------	---	------	--------	--------

Intercept	0.2326	0.016	14.976	0.000	0.202	0.263	
C(Political_regime)[T.Electoral Autocracy]	0.1457	0.017	8.440	0.000	0.112	0.180	
C(Political_regime)[T.Electoral Democracy]	0.4044	0.019	20.755	0.000	0.366	0.443	
C(Political_regime)[T.Liberal Democracy]	0.5256	0.026	20.559	0.000	0.475	0.576	
v2smgovdom	0.0500	0.006	8.933	0.000	0.039	0.061	
<hr/>							
Omnibus:	0.613	Durbin-Watson:	1.965				
Prob(Omnibus):	0.736	Jarque-Bera (JB):	0.695				
Skew:	-0.137	Prob(JB):	0.706				
Kurtosis:	2.852	Cond. No.	9.32				
<hr/>							

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.8078655703867655

Robust regression model:

Robust linear Model Regression Results

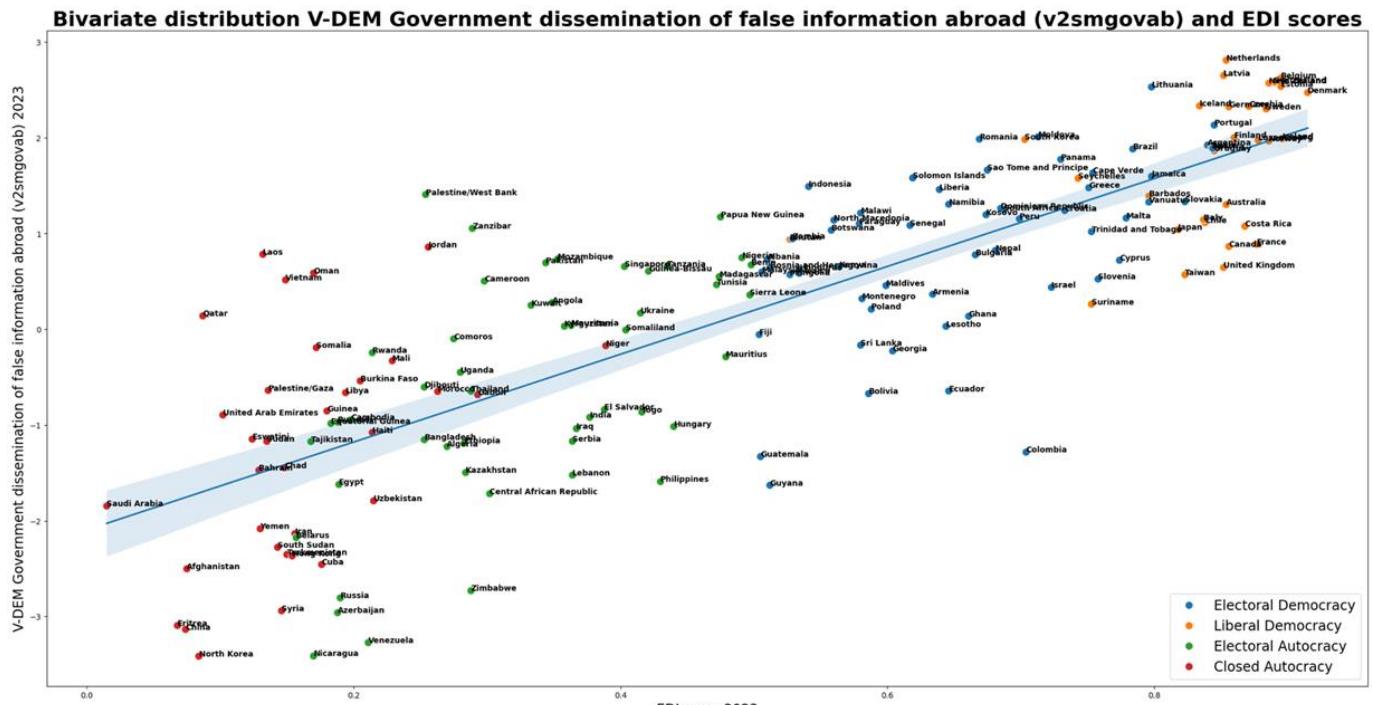
Dep. Variable:	EDI_score	No. Observations:	171	
Model:	RLM	Df Residuals:	166	
Method:	IRLS	Df Model:	4	
Norm:	HuberT			
Scale Est.:	mad			
Cov Type:	H1			
Date:	Wed, 07 Aug 2024			
Time:	14:00:11			
No. Iterations:	16			

	coef	std err	z	P> z	[0.025	0.975]
--	------	---------	---	------	--------	--------

Intercept	0.2333	0.016	14.325	0.000	0.201	0.265	
C(Political_regime)[T.Electoral Autocracy]	0.1451	0.018	8.020	0.000	0.110	0.181	
C(Political_regime)[T.Electoral Democracy]	0.4037	0.020	19.762	0.000	0.364	0.444	
C(Political_regime)[T.Liberal Democracy]	0.5282	0.027	19.708	0.000	0.476	0.581	
v2smgovdom	0.0509	0.006	8.664	0.000	0.039	0.062	

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

11.7 Bivariate distribution of V-Dem Government dissemination of false information abroad (v2smgovab) and EDI score 2023



Residuals:

```
count    1.710000e+02
mean     -3.174848e-16
std      7.845017e-02
min     -2.735784e-01
25%     -4.416392e-02
50%      5.360067e-03
75%      5.927974e-02
max      1.779048e-01
dtype: float64
```

OLS Regression Results

```
=====
Dep. Variable:          EDI_score    R-squared:           0.910
Model:                 OLS         Adj. R-squared:      0.908
Method:                Least Squares F-statistic:       419.9
Date:      Wed, 07 Aug 2024 Prob (F-statistic):   1.16e-85
Time:      14:00:11 Log-Likelihood:        193.11
No. Observations:      171         AIC:             -376.2
Df Residuals:          166         BIC:             -360.5
Df Model:               4
Covariance Type:       nonrobust
=====
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2191	0.016	13.911	0.000	0.188	0.250
C(Political_regime)[T.Electoral Autocracy]	0.1367	0.018	7.495	0.000	0.101	0.173
C(Political_regime)[T.Electoral Democracy]	0.3957	0.022	18.377	0.000	0.353	0.438
C(Political_regime)[T.Liberal Democracy]	0.5376	0.027	20.037	0.000	0.485	0.591
v2smgovab	0.0468	0.006	7.770	0.000	0.035	0.059

```
=====
Omnibus:            2.340 Durbin-Watson:        1.966
Prob(Omnibus):      0.310 Jarque-Bera (JB):  2.225
Skew:              -0.279 Prob(JB):          0.329
Kurtosis:           2.963 Cond. No.        9.49
=====
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: 0.819188568332442

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	171
Model:	RLM	Df Residuals:	166
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	14:00:11		
No. Iterations:	19		

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2187	0.017	12.763	0.000	0.185	0.252
C(Political_regime)[T.Electoral Autocracy]	0.1386	0.020	6.987	0.000	0.100	0.177
C(Political_regime)[T.Electoral Democracy]	0.3953	0.023	16.879	0.000	0.349	0.441
C(Political_regime)[T.Liberal Democracy]	0.5468	0.029	18.735	0.000	0.490	0.604
v2smgovab	0.0464	0.007	7.086	0.000	0.034	0.059

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

Appendix C

PanDem Data

In order to cover the entire period, data from the cross-sectional format (CS), which contains the maximum value of the PanDem index, was used. In terms of violations, the focus was on type 6 (Official Disinformation Campaigns) and type 7 (Restrictions on Media Freedom). In the data set of the time series format (TS), which is divided into five coding periods, the component indicators of the types are also listed. To enable a more in-depth analysis, these indicators were also taken into account in the bivariate regressions. In order to include the current values, the most recently recorded data was used (Q2 2021).

Type 6:

- Government disinformation (govdis)

Type 7:

- Media limitations (melim) (de-jure restriction)
- Limitations on media reporting about Covid-19 (merepfact) (de-facto restriction)
- Limitations on media reporting about the government response to Covid-19 (merepgov) (de-facto restriction)

- Limitations on media reporting about non-Covid-19 related news (mereporth) (de-facto restriction)
- Limitations on access to information (meinf) (de-facto restriction)

12.1 Bivariate distribution of The Pandemic Violations of Democratic Standards Index (PanDem) and EDI score 2021

Residuals:

```
count    2.740000e+02
mean   -2.475716e-16
std     9.790978e-02
min    -2.582002e-01
25%    -5.808836e-02
50%    -8.736432e-04
75%    6.090363e-02
max     4.137101e-01
dtype: float64
```

OLS Regression Results

```
=====
Dep. Variable:      EDI_score    R-squared:           0.858
Model:              OLS         Adj. R-squared:       0.856
Method:             Least Squares F-statistic:        405.4
Date:              Wed, 07 Aug 2024 Prob (F-statistic): 1.45e-112
Time:              14:00:12 Log-Likelihood:      248.41
No. Observations:      274 AIC:                 -486.8
Df Residuals:          269 BIC:                 -468.8
Df Model:                  4
Covariance Type:    nonrobust
=====
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2630	0.021	12.442	0.000	0.221	0.305
C(Political_regime)[T.Electoral Autocracy]	0.1415	0.018	7.884	0.000	0.106	0.177
C(Political_regime)[T.Electoral Democracy]	0.4536	0.018	24.760	0.000	0.418	0.490
C(Political_regime)[T.Liberal Democracy]	0.6142	0.023	26.378	0.000	0.568	0.660
pandem	-0.2538	0.047	-5.364	0.000	-0.347	-0.161

```
=====
Omnibus:            9.236 Durbin-Watson:        1.786
Prob(Omnibus):      0.010 Jarque-Bera (JB): 11.016
Skew:                0.307 Prob(JB):        0.00405
Kurtosis:            3.768 Cond. No.:        10.1
=====
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.5481338887955999

Robust regression model:

Robust linear Model Regression Results

```
=====
Dep. Variable:      EDI_score    No. Observations:      274
Model:              RLM         Df Residuals:          269
Method:             IRLS        Df Model:                  4
Norm:                HuberT
Scale Est.:          mad
Cov Type:            H1
Date:              Wed, 07 Aug 2024
=====
```

Time: 14:00:12
No. Iterations: 19

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2419	0.022	11.130	0.000	0.199	0.284
C(Political_regime)[T.Electoral Autocracy]	0.1561	0.018	8.460	0.000	0.120	0.192
C(Political_regime)[T.Electoral Democracy]	0.4676	0.019	24.834	0.000	0.431	0.505
C(Political_regime)[T.Liberal Democracy]	0.6364	0.024	26.590	0.000	0.589	0.683
pandem	-0.2302	0.049	-4.734	0.000	-0.326	-0.135

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.2 Bivariate distribution of PanDem type 6 (Official disinformation campaigns) and EDI score 2021

Residuals:

```
count 2.740000e+02
mean -1.851722e-16
std 1.019464e-01
min -2.649500e-01
25% -7.195005e-02
50% -3.248497e-03
75% 6.457485e-02
max 4.365638e-01
dtype: float64
```

OLS Regression Results

```
Dep. Variable: EDI_score R-squared: 0.846
Model: OLS Adj. R-squared: 0.843
Method: Least Squares F-statistic: 368.7
Date: Wed, 07 Aug 2024 Prob (F-statistic): 7.49e-108
Time: 14:00:12 Log-Likelihood: 237.34
No. Observations: 274 AIC: -464.7
Df Residuals: 269 BIC: -446.6
Df Model: 4
Covariance Type: nonrobust
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1894	0.016	12.094	0.000	0.159	0.220
C(Political_regime)[T.Electoral Autocracy]	0.1507	0.019	7.963	0.000	0.113	0.188
C(Political_regime)[T.Electoral Democracy]	0.4705	0.019	25.046	0.000	0.434	0.507
C(Political_regime)[T.Liberal Democracy]	0.6662	0.022	30.930	0.000	0.624	0.709
Official_disinformation_campaigns	-0.0197	0.008	-2.379	0.018	-0.036	-0.003

```
Omnibus: 13.173 Durbin-Watson: 1.823
Prob(Omnibus): 0.001 Jarque-Bera (JB): 18.807
Skew: 0.344 Prob(JB): 8.24e-05
Kurtosis: 4.083 Cond. No. 6.67
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.2580193445311092

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI_score	No. Observations:	274
Model:	RLM	Df Residuals:	269
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	14:00:12		
No. Iterations:	20		

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1764	0.016	11.341	0.000	0.146	0.207
C(Political_regime)[T.Electoral Autocracy]	0.1607	0.019	8.551	0.000	0.124	0.197
C(Political_regime)[T.Electoral Democracy]	0.4850	0.019	26.000	0.000	0.448	0.522
C(Political_regime)[T.Liberal Democracy]	0.6822	0.021	31.889	0.000	0.640	0.724
Official_disinformation_campaigns	-0.0193	0.008	-2.352	0.019	-0.035	-0.003

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.3 Bivariate distribution of PanDem type 7 (Restrictions on Media freedom) and EDI score 2021

Residuals:

```
count    2.740000e+02
mean     -5.105405e-16
std      9.385732e-02
min     -3.281049e-01
25%     -5.824113e-02
50%     -3.907352e-03
75%     6.187426e-02
max      3.412353e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI_score	R-squared:	0.869
Model:	OLS	Adj. R-squared:	0.867
Method:	Least Squares	F-statistic:	447.1
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	1.69e-117
Time:	14:00:13	Log-Likelihood:	259.99
No. Observations:	274	AIC:	-510.0
Df Residuals:	269	BIC:	-491.9
Df Model:	4		
Covariance Type:	nonrobust		

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.3044	0.022	14.000	0.000	0.262	0.347
C(Political_regime)[T.Electoral Autocracy]	0.1381	0.017	8.024	0.000	0.104	0.172

```

C(Political_regime)[T.Electoral Democracy]  0.4288   0.018   23.566   0.000   0.393   0.465
C(Political_regime)[T.Liberal Democracy]    0.5806   0.023   24.925   0.000   0.535   0.626
Restrictions_on_Media_freedom      -0.0419   0.006   -7.419   0.000   -0.053   -0.031
=====
```

```

Omnibus:          8.146 Durbin-Watson:        1.687
Prob(Omnibus):    0.017 Jarque-Bera (JB):     9.712
Skew:             0.272 Prob(JB):            0.00778
Kurtosis:         3.745 Cond. No.           16.9
=====
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.6911356036059788

Robust regression model:

Robust linear Model Regression Results

```

Dep. Variable: EDI_score No. Observations: 274
Model: RLM Df Residuals: 269
Method: IRLS Df Model: 4
Norm: HuberT
Scale Est.: mad
Cov Type: H1
Date: Wed, 07 Aug 2024
Time: 14:00:13
No. Iterations: 17
=====
```

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2902	0.021	13.606	0.000	0.248	0.332
C(Political_regime)[T.Electoral Autocracy]	0.1451	0.017	8.594	0.000	0.112	0.178
C(Political_regime)[T.Electoral Democracy]	0.4438	0.018	24.868	0.000	0.409	0.479
C(Political_regime)[T.Liberal Democracy]	0.5952	0.023	26.048	0.000	0.550	0.640
Restrictions_on_Media_freedom	-0.0408	0.006	-7.376	0.000	-0.052	-0.030

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore .

12.4 Bivariate distribution of PanDem type 6 Component indicator government disinformation (govdis) and EDI score 2021

Residuals:

```

count 1.440000e+02
mean -7.979728e-17
std 8.631564e-02
min -1.740028e-01
25% -5.925702e-02
50% 1.107151e-03
75% 6.823502e-02
max 1.957113e-01
dtype: float64
=====
```

OLS Regression Results

```

Dep. Variable: EDI R-squared: 0.889
Model: OLS Adj. R-squared: 0.886
Method: Least Squares F-statistic: 279.5
=====
```

Date: Wed, 07 Aug 2024 Prob (F-statistic): 2.14e-65
 Time: 16:25:24 Log-Likelihood: 148.94
 No. Observations: 144 AIC: -287.9
 Df Residuals: 139 BIC: -273.0
 Df Model: 4
 Covariance Type: nonrobust

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1647	0.018	8.970	0.000	0.128	0.201
C(polynomial_regime)[T.Electoral Autocracy]	0.1683	0.022	7.578	0.000	0.124	0.212
C(polynomial_regime)[T.Electoral Democracy]	0.4933	0.022	21.983	0.000	0.449	0.538
C(polynomial_regime)[T.Liberal Democracy]	0.6944	0.025	27.654	0.000	0.645	0.744
govdis	-0.0159	0.011	-1.389	0.167	-0.038	0.007

Omnibus: 3.933 Durbin-Watson: 1.849
 Prob(Omnibus): 0.140 Jarque-Bera (JB): 2.436
 Skew: 0.088 Prob(JB): 0.296
 Kurtosis: 2.388 Cond. No. 6.15

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.12322516730091734

Robust regression model:

Robust linear Model Regression Results

Dep. Variable: EDI No. Observations: 144
 Model: RLM Df Residuals: 139
 Method: IRLS Df Model: 4
 Norm: HuberT
 Scale Est.: mad
 Cov Type: H1
 Date: Wed, 07 Aug 2024
 Time: 16:25:24
 No. Iterations: 16

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1645	0.020	8.266	0.000	0.125	0.203
C(polynomial_regime)[T.Electoral Autocracy]	0.1713	0.024	7.118	0.000	0.124	0.218
C(polynomial_regime)[T.Electoral Democracy]	0.4898	0.024	20.143	0.000	0.442	0.537
C(polynomial_regime)[T.Liberal Democracy]	0.6947	0.027	25.533	0.000	0.641	0.748
govdis	-0.0184	0.012	-1.487	0.137	-0.043	0.006

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.5 Bivariate distribution of PanDem type 7 Component indicator De jure Restrictions on media (melim) and EDI score 2021

Residuals:

count 1.440000e+02
 mean 5.801686e-17
 std 8.689800e-02

```

min -1.756889e-01
25% -6.896226e-02
50% 3.127391e-03
75% 6.856111e-02
max 1.962111e-01
dtype: float64

```

OLS Regression Results

Dep. Variable:	EDI	R-squared:	0.888			
Model:	OLS	Adj. R-squared:	0.885			
Method:	Least Squares	F-statistic:	275.3			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	5.45e-65			
Time:	16:26:20	Log-Likelihood:	147.97			
No. Observations:	144	AIC:	-285.9			
Df Residuals:	139	BIC:	-271.1			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1608	0.019	8.377	0.000	0.123	0.199
C(political_regime)[T.Electoral Autocracy]	0.1649	0.022	7.419	0.000	0.121	0.209
C(political_regime)[T.Electoral Democracy]	0.4940	0.023	21.590	0.000	0.449	0.539
C(political_regime)[T.Liberal Democracy]	0.6976	0.026	27.100	0.000	0.647	0.749
melim	0.0023	0.011	0.219	0.827	-0.019	0.023
Omnibus:	5.102	Durbin-Watson:	1.824			
Prob(Omnibus):	0.078	Jarque-Bera (JB):	2.806			
Skew:	0.074	Prob(JB):	0.246			
Kurtosis:	2.332	Cond. No.	6.39			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.19431490227766776

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI	No. Observations:	144			
Model:	RLM	Df Residuals:	139			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	16:26:20					
No. Iterations:	20					
	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1598	0.021	7.705	0.000	0.119	0.200
C(political_regime)[T.Electoral Autocracy]	0.1666	0.024	6.936	0.000	0.120	0.214
C(political_regime)[T.Electoral Democracy]	0.4908	0.025	19.851	0.000	0.442	0.539
C(political_regime)[T.Liberal Democracy]	0.6986	0.028	25.114	0.000	0.644	0.753
melim	0.0030	0.011	0.261	0.794	-0.019	0.025

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.6 Bivariate distribution of PanDem type 7 Component indicator Limitations on media reporting about Covid-19 (merepfact) and EDI score 2021

Residuals:

```
count    1.440000e+02
mean    -3.633282e-16
std     8.332154e-02
min    -1.618131e-01
25%    -5.810213e-02
50%    3.771757e-04
75%    5.695782e-02
max     1.971869e-01
dtype: float64
```

OLS Regression Results

```
=====
Dep. Variable:          EDI    R-squared:       0.897
Model:                 OLS    Adj. R-squared:   0.894
Method:                Least Squares F-statistic:   302.5
Date:      Wed, 07 Aug 2024 Prob (F-statistic): 1.60e-67
Time:      16:27:01 Log-Likelihood:        154.02
No. Observations:      144   AIC:             -298.0
Df Residuals:          139   BIC:            -283.2
Df Model:               4
Covariance Type:       nonrobust
=====
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2373	0.028	8.529	0.000	0.182	0.292
C(political_regime)[T.Electoral Autocracy]	0.1570	0.021	7.336	0.000	0.115	0.199
C(political_regime)[T.Electoral Democracy]	0.4253	0.029	14.614	0.000	0.368	0.483
C(political_regime)[T.Liberal Democracy]	0.6212	0.032	19.184	0.000	0.557	0.685
merepfact	-0.0825	0.024	-3.499	0.001	-0.129	-0.036

```
=====
Omnibus:           3.016 Durbin-Watson:      1.768
Prob(Omnibus):    0.221 Jarque-Bera (JB): 2.356
Skew:              0.174 Prob(JB):          0.308
Kurtosis:          2.479 Cond. No.         9.36
=====
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.7819010698596692

Robust regression model:

Robust linear Model Regression Results

```
=====
Dep. Variable:          EDI    No. Observations:      144
Model:                 RLM    Df Residuals:          139
Method:                IRLS   Df Model:             4
Norm:                  HuberT
Scale Est.:            mad
Cov Type:              H1
Date:      Wed, 07 Aug 2024
Time:      16:27:01
=====
```

No. Iterations: 20

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2391	0.030	7.948	0.000	0.180	0.298
C(political_regime)[T.Electoral Autocracy]	0.1529	0.023	6.605	0.000	0.108	0.198
C(political_regime)[T.Electoral Democracy]	0.4198	0.031	13.341	0.000	0.358	0.481
C(political_regime)[T.Liberal Democracy]	0.6196	0.035	17.697	0.000	0.551	0.688
merepfact	-0.0832	0.025	-3.262	0.001	-0.133	-0.033

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.7 Bivariate distribution of PanDem type 7 Component indicator Limitations on media reporting about the government response to Covid-19 (merepgov) and EDI score 2021

Residuals:

```
count 1.440000e+02
mean -1.412836e-16
std 8.461787e-02
min -1.669921e-01
25% -5.792651e-02
50% -1.743889e-03
75% 5.910609e-02
max 2.038251e-01
dtype: float64
```

OLS Regression Results

```
Dep. Variable: EDI R-squared: 0.894
Model: OLS Adj. R-squared: 0.891
Method: Least Squares F-statistic: 292.3
Date: Wed, 07 Aug 2024 Prob (F-statistic): 1.36e-66
Time: 16:28:00 Log-Likelihood: 151.80
No. Observations: 144 AIC: -293.6
Df Residuals: 139 BIC: -278.7
Df Model: 4
Covariance Type: nonrobust
```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.2171	0.027	8.100	0.000	0.164	0.270
C(political_regime)[T.Electoral Autocracy]	0.1603	0.022	7.392	0.000	0.117	0.203
C(political_regime)[T.Electoral Democracy]	0.4475	0.028	16.252	0.000	0.393	0.502
C(political_regime)[T.Liberal Democracy]	0.6437	0.031	20.677	0.000	0.582	0.705
meregov	-0.0604	0.022	-2.764	0.006	-0.104	-0.017

```
Omnibus: 2.369 Durbin-Watson: 1.810
Prob(Omnibus): 0.306 Jarque-Bera (JB): 1.932
Skew: 0.144 Prob(JB): 0.381
Kurtosis: 2.511 Cond. No. 8.83
```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.7374868130625827

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI	No. Observations:	144
Model:	RLM	Df Residuals:	139
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	16:28:00		
No. Iterations:	21		

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.2230	0.029	7.675	0.000	0.166	0.280
C(political_regime)[T.Electoral Autocracy]	0.1578	0.024	6.713	0.000	0.112	0.204
C(political_regime)[T.Electoral Democracy]	0.4378	0.030	14.667	0.000	0.379	0.496
C(political_regime)[T.Liberal Democracy]	0.6382	0.034	18.912	0.000	0.572	0.704
meregov	-0.0657	0.024	-2.772	0.006	-0.112	-0.019

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.8 Bivariate distribution of PanDem type 7 Component indicator Limitations on media reporting about non-Covid-19 related news (meregov) and EDI score 2021

Residuals:

```
count    1.440000e+02
mean   -2.129855e-16
std     8.676803e-02
min    -1.780189e-01
25%    -6.535088e-02
50%    3.591822e-03
75%    6.968191e-02
max    1.964394e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI	R-squared:	0.888
Model:	OLS	Adj. R-squared:	0.885
Method:	Least Squares	F-statistic:	276.3
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	4.43e-65
Time:	16:29:10	Log-Likelihood:	148.19
No. Observations:	144	AIC:	-286.4
Df Residuals:	139	BIC:	-271.5
Df Model:	4		
Covariance Type:	nonrobust		

	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1582	0.019	8.257	0.000	0.120	0.196
C(political_regime)[T.Electoral Autocracy]	0.1644	0.022	7.414	0.000	0.121	0.208

C(political_regime)[T.Electoral Democracy]	0.4964	0.023	21.566	0.000	0.451	0.542
C(political_regime)[T.Liberal Democracy]	0.6997	0.026	27.305	0.000	0.649	0.750
mereporth	0.0144	0.021	0.682	0.497	-0.027	0.056

Omnibus:	5.570	Durbin-Watson:	1.801
Prob(Omnibus):	0.062	Jarque-Bera (JB):	2.932
Skew:	0.063	Prob(JB):	0.231
Kurtosis:	2.313	Cond. No.	6.17

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.2514962095940836

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI	No. Observations:	144
Model:	RLM	Df Residuals:	139
Method:	IRLS	Df Model:	4
Norm:	HuberT		
Scale Est.:	mad		
Cov Type:	H1		
Date:	Wed, 07 Aug 2024		
Time:	16:29:10		
No. Iterations:	16		

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1578	0.021	7.593	0.000	0.117	0.198
C(political_regime)[T.Electoral Autocracy]	0.1668	0.024	6.935	0.000	0.120	0.214
C(political_regime)[T.Electoral Democracy]	0.4924	0.025	19.730	0.000	0.444	0.541
C(political_regime)[T.Liberal Democracy]	0.7002	0.028	25.196	0.000	0.646	0.755
mereporth	0.0130	0.023	0.567	0.570	-0.032	0.058

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.9 Bivariate distribution of PanDem type 7 Component indicator Limitations on access to information (meinf) and EDI score 2021

Residuals:

```
count    1.440000e+02
mean     1.619075e-16
std      8.461388e-02
min     -1.645164e-01
25%     -5.780993e-02
50%     -5.945244e-03
75%     5.360839e-02
max      2.080871e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI	R-squared:	0.894
Model:	OLS	Adj. R-squared:	0.891
Method:	Least Squares	F-statistic:	292.3
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	1.35e-66

```

Time: 16:31:33 Log-Likelihood: 151.81
No. Observations: 144 AIC: -293.6
Df Residuals: 139 BIC: -278.8
Df Model: 4
Covariance Type: nonrobust
=====
=====

      coef  std err      t    P>|t|  [0.025  0.975]
-----
Intercept          0.1795  0.019   9.455  0.000   0.142   0.217
C(political_regime)[T.Electoral Autocracy] 0.1719  0.022   7.892  0.000   0.129   0.215
C(political_regime)[T.Electoral Democracy]  0.4841  0.022  21.762  0.000   0.440   0.528
C(political_regime)[T.Liberal Democracy]    0.6819  0.025  27.132  0.000   0.632   0.732
meinf             -0.0252  0.009  -2.767  0.006  -0.043  -0.007
=====
=====

Omnibus: 2.573 Durbin-Watson: 1.904
Prob(Omnibus): 0.276 Jarque-Bera (JB): 2.467
Skew: 0.252 Prob(JB): 0.291
Kurtosis: 2.605 Cond. No. 7.28
=====
=====

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Spearman correlation coefficient: -0.38667524774529305
Robust regression model:

```

Robust linear Model Regression Results

```

Dep. Variable: EDI No. Observations: 144
Model: RLM Df Residuals: 139
Method: IRLS Df Model: 4
Norm: HuberT
Scale Est.: mad
Cov Type: H1
Date: Wed, 07 Aug 2024
Time: 16:31:33
No. Iterations: 23
=====
=====


```

	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1829	0.020	8.996	0.000	0.143	0.223
C(political_regime)[T.Electoral Autocracy]	0.1691	0.023	7.253	0.000	0.123	0.215
C(political_regime)[T.Electoral Democracy]	0.4774	0.024	20.047	0.000	0.431	0.524
C(political_regime)[T.Liberal Democracy]	0.6798	0.027	25.266	0.000	0.627	0.732
meinf	-0.0306	0.010	-3.137	0.002	-0.050	-0.011

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

12.10 Bivariate distribution of PanDem type 7 Component indicator Verbal harassment of journalists (mevhar) and EDI score 2021

Residuals:

count	1.440000e+02
mean	9.251859e-18
std	8.661468e-02
min	-1.808513e-01
25%	-6.401753e-02

50% 1.778577e-03
 75% 6.644675e-02
 max 2.014337e-01
 dtype: float64

OLS Regression Results

Dep. Variable:	EDI	R-squared:	0.889			
Model:	OLS	Adj. R-squared:	0.885			
Method:	Least Squares	F-statistic:	277.4			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	3.46e-65			
Time:	16:33:37	Log-Likelihood:	148.44			
No. Observations:	144	AIC:	-286.9			
Df Residuals:	139	BIC:	-272.0			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1640	0.018	8.895	0.000	0.128	0.200
C(political_regime)[T.Electoral Autocracy]	0.1669	0.022	7.502	0.000	0.123	0.211
C(political_regime)[T.Electoral Democracy]	0.4938	0.023	21.922	0.000	0.449	0.538
C(political_regime)[T.Liberal Democracy]	0.6945	0.025	27.523	0.000	0.645	0.744
mevhar	-0.0233	0.024	-0.979	0.329	-0.070	0.024
Omnibus:	3.726	Durbin-Watson:	1.858			
Prob(Omnibus):	0.155	Jarque-Bera (JB):	2.371			
Skew:	0.094	Prob(JB):	0.306			
Kurtosis:	2.400	Cond. No.	6.00			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.15389557134307913

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI	No. Observations:	144			
Model:	RLM	Df Residuals:	139			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	16:33:37					
No. Iterations:	19					
	coef	std err	z	P> z	[0.025	0.975]
Intercept	0.1644	0.020	8.329	0.000	0.126	0.203
C(political_regime)[T.Electoral Autocracy]	0.1688	0.024	7.087	0.000	0.122	0.215
C(political_regime)[T.Electoral Democracy]	0.4896	0.024	20.299	0.000	0.442	0.537
C(political_regime)[T.Liberal Democracy]	0.6940	0.027	25.686	0.000	0.641	0.747
mevhar	-0.0309	0.025	-1.214	0.225	-0.081	0.019

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore .

12.11 Bivariate distribution of PanDem type 7 Component indicator Physical harassment of journalists (mephar) and EDI score 2021

Residuals:

```
mean    5.100087e-16
std     8.625242e-02
min    -1.843812e-01
25%   -5.428798e-02
50%   5.901147e-04
75%   6.733483e-02
max    2.097151e-01
dtype: float64
```

OLS Regression Results

Dep. Variable:	EDI	R-squared:	0.890			
Model:	OLS	Adj. R-squared:	0.886			
Method:	Least Squares	F-statistic:	280.0			
Date:	Wed, 07 Aug 2024	Prob (F-statistic):	1.94e-65			
Time:	16:35:16	Log-Likelihood:	149.04			
No. Observations:	144	AIC:	-288.1			
Df Residuals:	139	BIC:	-273.2			
Df Model:	4					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	0.1650	0.018	8.987	0.000	0.129	0.201
C(political_regime)[T.Electoral Autocracy]	0.1694	0.022	7.605	0.000	0.125	0.213
C(political_regime)[T.Electoral Democracy]	0.4918	0.022	21.907	0.000	0.447	0.536
C(political_regime)[T.Liberal Democracy]	0.6948	0.025	27.715	0.000	0.645	0.744
mephar	-0.0351	0.024	-1.462	0.146	-0.083	0.012
Omnibus:	2.539	Durbin-Watson:	1.897			
Prob(Omnibus):	0.281	Jarque-Bera (JB):	1.912			
Skew:	0.109	Prob(JB):	0.384			
Kurtosis:	2.479	Cond. No.	5.99			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Spearman correlation coefficient: -0.19987818592399917

Robust regression model:

Robust linear Model Regression Results

Dep. Variable:	EDI	No. Observations:	144			
Model:	RLM	Df Residuals:	139			
Method:	IRLS	Df Model:	4			
Norm:	HuberT					
Scale Est.:	mad					
Cov Type:	H1					
Date:	Wed, 07 Aug 2024					
Time:	16:35:16					
No. Iterations:	14					
	coef	std err	z	P> z	[0.025	0.975]

Intercept	0.1658	0.020	8.483	0.000	0.128	0.204
C(polynomial_regime)[T.Electoral Autocracy]	0.1714	0.024	7.230	0.000	0.125	0.218
C(polynomial_regime)[T.Electoral Democracy]	0.4870	0.024	20.380	0.000	0.440	0.534
C(polynomial_regime)[T.Liberal Democracy]	0.6944	0.027	26.019	0.000	0.642	0.747
mephar	-0.0455	0.026	-1.781	0.075	-0.096	0.005

If the model instance has been used for another fit with different fit parameters, then the fit options might not be the correct ones anymore.

References

- Alizada, N., ..., and S. I. Lindberg. (2021). Autocratization Turns Viral. Democracy Report 2021. University of Gothenburg: V-Dem Institute. https://v-dem.net/documents/12/dr_2021.pdf
- Boese, V. A., ..., and S. I. Lindberg. (2022). Autocratization Changing Nature? Democracy Report 2022. Varieties of Democracy Institute (V-Dem). https://v-dem.net/documents/19/dr_2022_ipyOpLP.pdf
- Coppedge, M., ..., and D. Ziblatt. (2024a). V-Dem [Country-Year/Country-Date] Dataset v14. Varieties of Democracy (V-Dem) Project. <https://v-dem.net/data/the-v-dem-dataset/country-date-v-dem-v14/>
- Coppedge, M., ..., and D. Ziblatt. (2024b). V-Dem Codebook v14 Varieties of Democracy (V-Dem) Project. https://v-dem.net/documents/38/V-Dem_Codebook_v14.pdf
- Coppedge, M., ..., and S. Wilson. (2024c). V-Dem Methodology v14 Varieties of Democracy (V-Dem) Project. https://v-dem.net/documents/39/v-dem_methodology_v14.pdf
- Economist Intelligence Unit (EIU). (2007). 2006 Democracy Index. https://www.economist.com/media/pdf/democracy_index_2007_v3.pdf
- Economist Intelligence Unit (EIU). (2008). 2008 Democracy Index. <https://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf>
- Economist Intelligence Unit (EIU). (2010). 2010 Democracy Index. Democracy in retreat. https://graphics.eiu.com/PDF/Democracy_Index_2010_web.pdf
- Economist Intelligence Unit (EIU). (2011). 2011 Democracy Index. Democracy under stress. https://thecubaneconomy.com/wp-content/uploads/2012/01/Democracy_Index_Final_Dec_2011.pdf
- Economist Intelligence Unit (EIU). (2013). 2012 Democracy Index. Democracy at a standstill. <https://web.archive.org/web/20170320185156/http://pages.eiu.com/rs/eiu2/images/Democracy-Index-2012.pdf>
- Economist Intelligence Unit (EIU). (2014). 2013 Democracy Index. Democracy in limbo. https://siyosat.wordpress.com/wp-content/uploads/2014/10/democracy_index_2013_web-2.pdf
- Economist Intelligence Unit (EIU). (2015). 2014 Democracy Index. Democracy and its discontents. <https://www.sudestada.com.uy/Content/Articles/421a313a-d58f-462e-9b24-2504a37f6b56/Democracy-index-2014.pdf>

Economist Intelligence Unit (EIU). (2016). 2015 Democracy Index. Democracy in an age of anxiety. <https://www.yabiladi.com/img/content/EIU-Democracy-Index-2015.pdf>

Economist Intelligence Unit (EIU). (2017). 2016 Democracy Index. Revenge of the “deplorables”. https://impact.economist.com/perspectives/sites/default/files/The%20EIU%27s%202016%20Democracy%20Index_0.pdf

Economist Intelligence Unit (EIU). (2018). 2017 Democracy Index. Free speech under attack. https://pages.eiu.com/rs/753-RIQ-438/images/Democracy_Index_2017.pdf?mkt_tok=NzUzLVJJUS00MzgAAAGVpNI08s0G6hkOT--rm_wZOKn9R8wRlaKYauB1SSdkU4p70Wyn27ldORTqgGwIFsP38axbr2f0CaYg92VVeEDjRv6VKAzQlF7pQaPJQz3C7edwA

Economist Intelligence Unit (EIU). (2019). 2018 Democracy Index. Me too? Political participation, protest and democracy. https://pages.eiu.com/rs/753-RIQ-438/images/Democracy_Index_2018.pdf?mkt_tok=NzUzLVJJUS00MzgAAAGVpNChyTQRV4XahurgCu0jEopRFjYOLM0HtLRsUl8q3Cs4NGBNiMDJ-_bXv1kQOJNWOpfjy39KUb4LSNQ8xose57e6UsaKsh2YuRQU9VkpYsCBA

Economist Intelligence Unit (EIU). (2020). 2019 Democracy Index. A year of democratic setbacks and popular protest. https://pages.eiu.com/rs/753-RIQ-438/images/Democracy%20Index%202019.pdf?mkt_tok=NzUzLVJJUS00MzgAAAGVpM4xl48b5ti738P4bPR7dfXbo6ZjFuryCGdrgMQJU4Zt3fHEHvl0v2fAmprK0d0NShe6wCurRJy0podGV4tib80v8bzeVGwW3cWOO7xRtDwVQ

Economist Intelligence Unit (EIU). (2021). 2020 Democracy Index. In sickness and in health? https://pages.eiu.com/rs/753-RIQ-438/images/democracy-index-2020.pdf?mkt_tok=NzUzLVJJUS00MzgAAAGSuIeOrlF4ZtapNCM34LggBguiFHWWMNOIoIx11GMnjrRzRyfObJ_BmRX-kIY8y1wcqgUUWkAgm7HsO7FchWxkc6buXYcAy4hw-B_IL0ZulLKvc7w

Economist Intelligence Unit (EIU). (2022). 2021 Democracy Index. The China challenge. https://pages.eiu.com/rs/753-RIQ-438/images/eiu-democracy-index-2021.pdf?mkt_tok=NzUzLVJJUS00MzgAAAGVpNudMSPhrTLa0Bms-WSW1RkI22E5oxzI-GBEXpPFj4VMf4nc_YRHYwdolk_bCd9BXHj8GAayPWdu94DMsznMfU6W3eio3tcibVUChrQjML71KA

Economist Intelligence Unit (EIU). (2023). 2022 Democracy Index. Frontline democracy and the battle for Ukraine. https://pages.eiu.com/rs/753-RIQ-438/images/DI-final-version-report.pdf?mkt_tok=NzUzLVJJUS00MzgAAAGVpOf0vyDviebDCPTG-TdLVpaeL61OLJzECUbNRgUXrOc1Yt3G8FbuF1yeFBsL38ZtvAa5JTe7kxlz7rYP3zwSPAbIT7gNnrYr3KCz_-LaOx4C_g

Economist Intelligence Unit (EIU). (2024). 2023 Democracy Index. Age of conflict. https://pages.eiu.com/rs/753-RIQ-438/images/Democracy-Index-2023-Final-report.pdf?version=0&mkt_tok=NzUzLVJJUS00MzgAAAGSuJEuXjiHh9g8-gVtq4O63qD3lx6Gscor1oGAC-F8VpFtAatj19whhSX_J-A_YcJw0KYhqzzSt04jTU-JLIGXO-zufFXnvRioM7W1JF0KVA0JmQ

Edgell, A. B., ..., and S. I. Lindberg. (2020). Pandemic Backsliding: Democracy During Covid-19 (PanDem), Version 6. Varieties of Democracy (V-Dem) Institute. www.v-dem.net/en/our-work/research-projects/pandemic-backsliding/

Edgell, A. B., ..., and S. I. Lindberg. (2022). Pandemic Backsliding: Democracy During Covid-19 (PanDem), Version 6.1. Varieties of Democracy (V-Dem) Institute.
<https://github.com/vdeminstitute/pandem>,
https://github.com/vdeminstitute/pandem/blob/master/codebook/pandem_codebook.pdf

Freedom House. (2024a). Freedom on the Net 2023. The Repressive Power of Artificial Intelligence.
<https://freedomhouse.org/report/freedom-net/2023/repressive-power-artificial-intelligence>

Freedom House. (2024b). Freedom on the Net. <https://freedomhouse.org/report/freedom-net>

Lührmann, A., Tannenberg, M., & Lindberg, S. I. (2018). Regimes of the World (RoW): Opening New Avenues for the Comparative Study of Political Regimes. *Politics and Governance*. 6(1): pp. 60-77.

PanDem. (n.y.). Pandemic Backsliding: Democracy During COVID-19 (March 2020 to June 2021).
<https://www.v-dem.net/pandem.html>

X Transparency Center. (2024). Removal Requests. <https://transparency.x.com/en/reports/removal-requests#2021-jul-dec>