

The Impact of Legal Restrictions on the Content and Sentiment of Media Coverage in Tanzania*

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The last 20 years have seen an enormous rise in government crackdowns on news freedom. According to the Varieties of Democracy Dataset (VDem), the annual incidence of significant censorship has quintupled over that period (Coppedge et al. 2021). Indeed, Figure 1 shows the number of countries whose censorship index worsened by more than 20% in a year. In 2017, for instance, more than 1/5 of the countries in the world experienced a significant increase in censorship. Given the global rise of informational autocrats (Guriev and Treisman 2019) and the role of media repression in episodes of democratic backsliding, it is crucial to understand how different media sources and broader information ecosystems respond to government repression.

Restrictive legislation can impact both *what* a news outlet covers and the *sentiment*, i.e. the pro- or anti-government slant, with which it is covered. We rely on the Machine Learning for Peace (MLP) project’s enormous corpus of national online news coverage in Tanzania over six years to assess the impact of two major restrictive legal changes: the 2016 Media Services and Access to Information Acts and the 2018 Electronic and Postal Communications Act. To analyze the impact of these restrictive laws, we analyze the full corpus of more than 116,000 daily news articles published by four large, national news outlets from 2014 to 2021.¹

Despite the prevalence of media crackdowns worldwide, surprisingly little research examines how media outlets respond when they face repressive shifts from the government. Indeed, this is the first article-level and newspaper-level analysis aimed at understanding how media restrictions impact coverage. We have three key findings:

- Independent news outlets continue to cover the same issues in the aftermath of legal restrictions, even as they adjust the sentiment of their coverage.
- Independent news outlets *reduce* the *anti*-government sentiment of their coverage after both the 2016 and 2018 legal restrictions.

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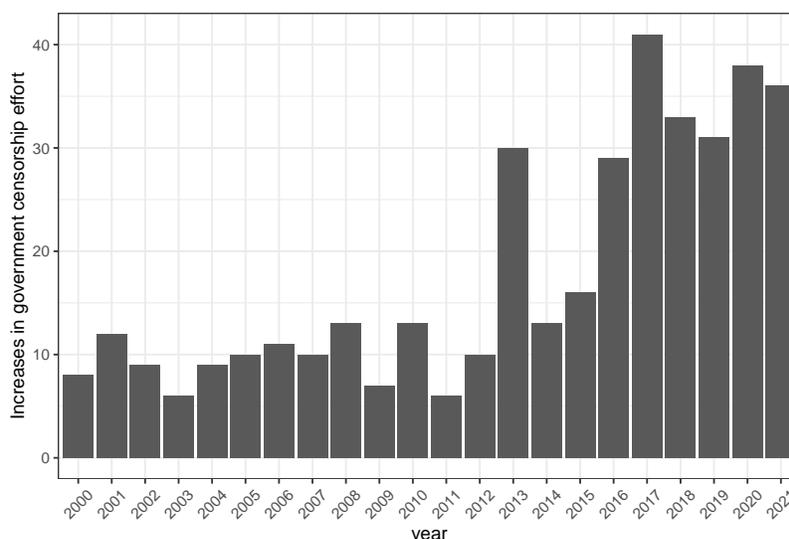
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¹Appendix A contains a brief description of each of the local sources employed.

- Independent news outlets publish *more* explicitly *pro*-government sentiment after the legal changes.

All told, our results shed light on both the resilience of news organizations in the face of legal repression and the ways in which they comply with media restrictions. Confronted by repressive legal changes, independent outlets make editorial choices that allow them to continue reporting on key civic space events. Thus, even if the government finds reporting on protests or censorship sensitive, independent newspapers continue to report on them. At the same time, independent newspapers temper their editorial tone/sentiment to reflect government preferences—their coverage becomes both less critical of the government and more favorable towards it. One crucial research question is how citizens understand coverage of critical events when the tone of that coverage becomes less critical of the government itself.

Figure 1: Number of Countries Experiencing Large Increases in Censorship



The Tanzanian Context

We focus on Tanzania, a country that, in some ways, is representative of broader trends in media repression. VDem identifies Tanzania as one of 25 countries undergoing a process of *autocratization* in the past decade, along with other prominent examples such as Turkey and Brazil (Hellmeier et al. 2021). Although the political situation began deteriorating rapidly with the election of President John Magufuli in 2015,² weak political competition has characterized the country since the end of one-party rule in the early 1990s. Indeed, the Chama Cha Mapinduzi (CCM) has won every presidential election and retained a majority in the National Assembly since 1995.

In recent years, the government of Tanzania has enacted several laws aimed at restricting press freedom. We focus on two in particular. First, the November 2016 Media Services Act required the registration of newspapers, provided wide leeway for the Minister of Information

²<https://www.hrw.org/world-report/2019/country-chapters/tanzania-and-zanzibar>

to restrict the publication of material, and made it mandatory for private broadcasters to transmit news bulletins produced by the public media broadcaster. It also directly targeted journalists by requiring state-approved accreditation with vague rules that provide considerable leeway for the government to suspend journalists. ICNL summarizes that “Especially for private media outlets, such powers infringe on their independence to determine editorial policy and thus their rights to media freedom, opinion, and expression. Further, the public is denied the right to access information from a wide range of sources and varied shades of opinion” (ICNL 2019, p.19). In the aftermath of the law, Tanzania fell 12 spots in Reporters without Borders’ World Press Freedom rankings.

We also examine the Electronic and Postal Communications Act of 2018, which directly targeted a broader set of “online content providers”, including social media, citizen forums, and online newspapers. It gave the Tanzania Communications Regulatory Authority (TCRA) broad power to oversee online material and required all online forums and bloggers to register. The law also targeted internet service providers by requiring them to monitor online content to ensure that posts are consistent with the law’s vague language against ‘obscene’ or ‘false’ claims. Following the act, Tanzania fell a further 25 spots in the World Press Freedom rankings.

Data and Approach

Independent news outlets face a trade-off when governments introduce repressive legislation. On one hand, altering their usual editorial choices to appease regulators will help them avoid punishment by the regime. On the other hand, critical coverage is what their readership expects, and any overt changes in their editorial decisions away from their audience may reduce the number of readers. Given high sunk costs in *what* journalists cover (i.e. big investments in different journalistic beats) and expectations about an established readership’s capacity to parse critical sentiment or tone from the content of articles, we expect larger effects of repressive laws on the sentiment of coverage than on the kinds of events that media cover. Put simply; we expect independent media to retain its focus on *what* it covers even as it increases the pro-government and/or decreases the anti-government *sentiment* of that coverage.

To examine the impact of these laws on *what* the media cover, we rely on the MLP civic space event data.³ We focus on three event types: protests, arrests, and censorship because previous research suggests these topics can be particularly sensitive politically. We concentrate on protests because of evidence that authoritarian governments are sensitive to expressions of collective action (King et al. 2013; Lorentzen et al. 2013). We focus on arrests and censorship because these coercive activities speak to government efforts to reign in activists and the opposition.

To assess the impact of the two laws on pro- or anti-government sentiment or tone, we train a second Transformer-based model with hand-coded data on pro-, neutral-, and anti-government coverage. We labeled articles as “anti-government” when they directly criticize an existing policy, law, official statement, or government member. We also label articles as

³For a more detailed description of each event type as well as the classification model, visit <https://web.sas.upenn.edu/mlp-devlab/>.

“anti-government” when they praise opposition parties/members or cover bad situations that arise from government (in)action. We label articles as “pro-government” when stories praise government policies or report favorably about government members. Any story criticizing the opposition party or its members is coded as “pro-government”. All articles that do not fit these categories are coded as “neutral”. The resulting model is accurate in 70% of out-of-sample tests, approximating sentiment models on, for instance, the US Congress (Wang et al. 2012).

We estimate the following linear probability model, with individual articles as the unit of analysis.

$$\begin{aligned}
 y_{sit} = & \beta_1 \text{Independent Outlet}_{st} \\
 & + \beta_2 \text{legal change } 2016_t \times \text{Independent Outlet}_{st} \\
 & + \beta_3 \text{legal change } 2018_t \times \text{Independent Outlet}_{st} \\
 & + \gamma_s + \lambda_t + \epsilon_{sit}
 \end{aligned} \tag{1}$$

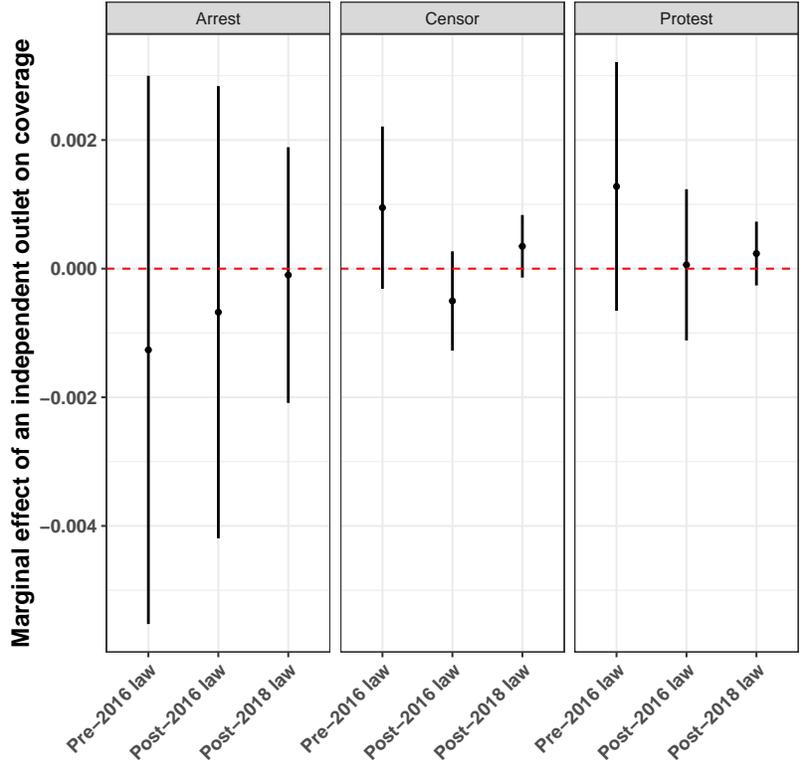
When assessing bias or slant, y_{sit} is a dummy variable that refers to whether a given article published by source s is classified as neutral, anti- or pro-government. When assessing event type, y_{sit} is a dummy variable that refers to whether a given article published by source s is classified as the event of interest (protest, arrest, or censor). *legal change 2016_t* equals one for all articles published after the introduction of the 2016 Media Services and Access to Information Act but before the 2018 legal change, and zero for all other articles. *legal change 2018_t* equals one for all articles published after the introduction of the 2018 Electronic and Postal Communications Act, and zero for all articles published before. *Independent Outlet_{st}* is a dummy for whether the news outlet privately owned and independent from the government since before the 2016 legal change. We have two independent newspapers, *MTanzania* and *IPP Media*.⁴ γ_s and λ_t stand for source and day fixed effects, respectively. Standard errors are clustered at the day level.

Results

We first present the results using the three potentially sensitive event types (arrest, censor, and protest). While the full table is in the Appendix (see Table 1 in the Appendix), we present the marginal effect of an independent outlet on coverage in Figure 2 here. The main takeaway from Figure 2 is that independent and government-affiliated outlets do not differ from each other when it comes to event coverage. Irrespective of the period, independent outlets do not change *what* they cover relative to government-affiliated newspapers. From the point of view of an interest in self-censorship by media, this is an important finding. Despite the potential politically sensitivity of coverage of arrest, censorship or protests, independent outlets continue to cover them in the aftermath of both the 2016 and 2018 laws.

⁴See Appendix A.

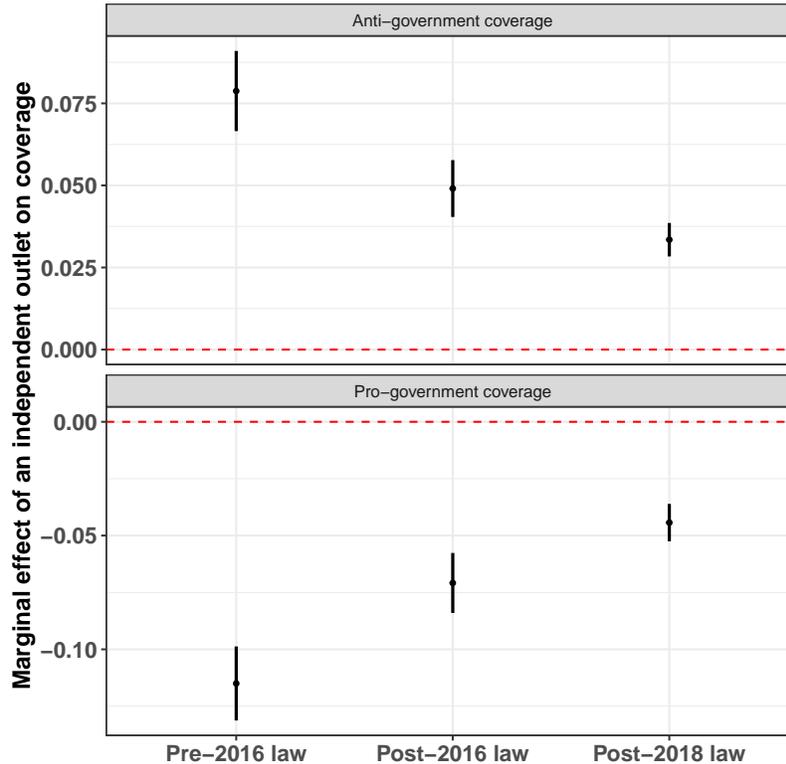
Figure 2: Marginal Effect of an Independent Outlet on Event Coverage



The sentiment results, on the other hand, provide a different picture. The upper panel in Figure 3 reflects the model in the second column of Table 2 in the Appendix, and the lower panel reflects the first column of that table. The figure shows that independent media reduce their critical sentiment and increase their pro-government sentiment relative to pro-government sources. While independent outlets are 7.9% more likely to publish an anti-government article before the 2016 legal change, this difference declined to 3.3% after the 2018 legal change. Given that only around 13.5% of all articles published by independent outlets have anti-government sentiment or tone, this decline is substantively large.

Turning to the lower panel in Figure 3, we also see that independent newspapers become relatively more pro-government in their coverage. While independent outlets are 12% less likely to publish a pro-government article before the 2016 legal restriction, this gap diminishes to 4.4% after 2018. In short, independent newspapers become much more similar to government-affiliated newspapers after the two legal restrictions. In the Appendix we also show that this increase in pro-government coverage is even more dramatic for independent outlets when we restrict our attention to news that explicitly mentions government actors (see Table 2).

Figure 3: Marginal Effect of an Independent Outlet on Pro- and Anti-government Coverage



Conclusion

Our analysis of the 2016 Media Services and Access to Information Acts and the 2018 Electronic and Postal Communications Act on the coverage of independent news outlets in Tanzania shows that these outlets are less likely to change *what* they report on, but they do change the *sentiment* with which they cover the news. While they continue to report on important civic space events such as protests, arrests, and instances of censorship, that coverage becomes more both more pro-government and less anti-government. These effects are cumulative, with each successive law making the independent media both less critical and more positive toward the government.

The results presented in this report shed light on how news media respond in the face of democratic backsliding across the world. Confronted by repressive legal changes, independent outlets continue reporting on key (and potentially controversial) civic space events, even as they temper their criticism of the government and introduce more pro-government sentiment. The net result of these changes for citizens and democratic resilience depends largely on their capacity to distinguish *what* is covered from the *sentiment* with which it is covered.

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A Appendix: Tanzania Sources

The four sources we used for the analysis in this report were selected using the same procedure that the INSPIRES Machine Learning for Peace uses in every country. We select national sources for each country on the basis of 4 considerations: (i) the source must be machine scrapable, (ii) it must publish its content in a language that can be translated to English using either Huggingface translation models or Google Translate, (iii) it must have some level of historical activity in reporting events of interest –preferably going as far back as 2012– and (iv) it must produce original content. Our identification procedure begins with a careful examination of each country’s most important newspapers based on circulation, but we also include high-quality online newspapers. The end result is a relatively small list of between 2 and 5 high-quality national sources per country. In the case of Tanzania, we ended up with 4 sources which we briefly describe below.

A.1 Independent Sources

1. **IPP Media Group.** IPP Media Group owns a total of 9 newspapers. We treat the two largest ones –The Guardian (English language) and Nipashe (Swahili language)– as one since they share the same website. IPP Media Group is a private company owned by the IPP Group Limited conglomerate owned by Tanzanian businessman Reginald A. Mengi. In 2018 The Guardian and Nipashe’s combined readership made of IPP Media Group the second largest news outlet in the country (Media Council of Tanzania 2018).
2. **MTanzania.** It is a Swahili language news outlet which publishes both in print and online on a daily basis. MTanzania is owned by New Habari LTD, a private newspaper conglomerate owned by Rostam Azizi, a Tanzanian billionaire and former politician (member of the Chama Cha Mapinduzi (CCM) party). Azizi bought New Habari LTD in 2006, and MTanzania published pro-government content until he left the ruling party in 2011. As of 2018, New Habari LTD was the third largest news outlet by readership in Tanzania (Media Council of Tanzania 2018).

A.2 State Media

1. **Daily News.** It is an English language news outlet which publishes both in print and online on a daily basis. Daily News is owned by Tanzania Standard Newspapers, a company owned by the Government of Tanzania.
2. **Habari Leo.** It is a Swahili language news outlet which publishes both in print and online on a daily basis. It is the sister publication of Daily news, also owned by the Tanzania Standard Newspapers.

In 2018, Tanzania Standard Newspapers was the fourth largest news conglomerate by readership in Tanzania (Media Council of Tanzania 2018).

A.3 Tables

Table 1: Effect of the Legal Changes on Independent News Outlets - Content

	All news			News without government actors			News with government actors		
	Protest	Arrest	Censor	Protest	Arrest	Censor	Protest	Arrest	Censor
Independent Newspapers	0.001 (0.001)	-0.001 (0.002)	0.001 (0.001)	0.000 (0.001)	-0.004 (0.003)	0.001 (0.001)	0.004* (0.002)	0.008* (0.003)	0.001 (0.001)
Independent Newspapers x Post-2016 law	-0.001 (0.001)	0.001 (0.003)	-0.001+ (0.001)	-0.001 (0.001)	0.004 (0.004)	-0.002+ (0.001)	-0.002 (0.002)	-0.003 (0.004)	-0.001 (0.001)
Independent Newspapers x Post-2018 law	-0.001 (0.001)	0.001 (0.002)	-0.001 (0.001)	0.000 (0.001)	0.003 (0.003)	0.000 (0.001)	-0.004+ (0.002)	-0.004 (0.003)	-0.001 (0.001)
Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	116784	116784	116784	81919	81919	81919	34865	34865	34865
R2	0.021	0.025	0.024	0.029	0.033	0.033	0.063	0.069	0.063
R2 Adj.	0.003	0.006	0.005	0.002	0.007	0.006	0.000	0.007	0.000

Standard errors are clustered at the day level

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 2: Effect of the Legal Changes on Independent News Outlets - Slant

	All news			News without government actors			News with government actors		
	Pro-Gov	Anti-Gov	Neutral	Pro-Gov	Anti-Gov	Neutral	Pro-Gov	Anti-Gov	Neutral
Independent Newspapers	-0.115*** (0.008)	0.079*** (0.006)	0.036*** (0.009)	-0.107*** (0.010)	0.057*** (0.008)	0.050*** (0.011)	-0.172*** (0.014)	0.120*** (0.011)	0.052*** (0.014)
Independent Newspapers x Post-2016 law	0.044*** (0.011)	-0.030*** (0.008)	-0.014 (0.012)	0.038** (0.012)	-0.023* (0.009)	-0.014 (0.014)	0.044* (0.018)	-0.047*** (0.014)	0.003 (0.018)
Independent Newspapers x Post-2018 law	0.071*** (0.009)	-0.045*** (0.007)	-0.025* (0.010)	0.074*** (0.011)	-0.030*** (0.008)	-0.044*** (0.012)	0.111*** (0.016)	-0.077*** (0.012)	-0.034* (0.015)
Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	116783	116783	116783	81918	81918	81918	34865	34865	34865
R2	0.048	0.038	0.035	0.053	0.040	0.043	0.114	0.106	0.094
R2 Adj.	0.030	0.019	0.017	0.027	0.014	0.017	0.055	0.046	0.033

Standard errors are clustered at the day level

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001