

## Supplementary material for “The Increasing Frequency of Terms Denoting Political Extremism in U.S. and U.K. News Media”

### List of U.S. news media outlets analyzed and external labels of their ideological leanings

The list of U.S. outlets analyzed in this work as well as the human ratings of outlets ideological leanings was taken from the 44 U.S. based outlets in the AllSides organization 2019 Media Bias Ratings v1.1 chart [1] and it is displayed in Figure S 1. Notice that there are a total of 47 outlets in Figure S 1, three of those outlets are predominantly U.K. based news outlets (*BBC*, *The Guardian* and *The Daily Mail*) and are analyzed together with the other U.K. based news media, see Table S 1



Version 1.1 | AllSides 2019

Figure S 1 AllSides 2019 Media Bias Ratings v1.1. Printed with permission from AllSides <https://www.allsides.com/blog/updated-allsides-media-bias-chart-version-11>. Notice that the chart also includes three predominantly U.K. based news outlets that are analyzed separately in the U.K. specific analysis (see below).

### **List of U.K. news media outlets analyzed and external labels of their ideological leanings**

The list of U.K. outlets analyzed in this work was taken from a YouGov ranking [2] of popular U.K. newspapers, listed in Figure S 2. The BBC was added to this list since despite not being a newspaper, it is one of the most influential news outlets in the U.K.

## The Most Popular Newspapers (Q2 2021)

Popularity is the % of people who have a positive opinion of a newspaper. [Find out more](#)












	Search		Fame ▼	Popularity ▼
1		Metro	90%	40%
2		The Times	97%	35%
3		The Sunday Times	95%	35%
4		The Independent	95%	34%
5		The Guardian	95%	32%
6		Financial Times	94%	30%
7		The Sun	97%	30%
8		Daily Mail	97%	29%
9		The Daily Telegraph	96%	29%
10		The Mail on Sunday	90%	29%
11		The Daily Mirror	96%	28%

Figure S 2 List of most popular newspapers in the U.K. by YouGov [2].

The list of U.K. news media analyzed and their ideological leanings according to a majority vote derived from three independent raters of news outlets political bias is shown Table S 1

External Labels of U.K. News Media Political Leanings				
	Ad Fontes Media	AllSides	YouGov	Majority vote
The Guardian	L	L	L	<b>L</b>
The Independent	L	L	L	<b>L</b>
The Mirror	L	NA	L	<b>L</b>
BBC	C	C	NA	<b>C</b>
Financial Times	C	C	NA	<b>C</b>
Metro UK	C	NA	NA	<b>C</b>
The Times	C	C	R	<b>C</b>
The Daily Mail	C	R	R	<b>R</b>
The Telegraph	NA	R	R	<b>R</b>
The Sun	NA	NA	R	<b>R</b>
L stands for left-leaning				
C stands for center leaning				
R stands for right-leaning				
Sources				
Ad Fontes Media	<a href="https://adfontesmedia.com/interactive-media-bias-chart-free-edition-for-registered-users/">https://adfontesmedia.com/interactive-media-bias-chart-free-edition-for-registered-users/</a>			
AllSides	<a href="https://www.allsides.com/media-bias/media-bias-ratings">https://www.allsides.com/media-bias/media-bias-ratings</a>			
YouGov	<a href="https://yougov.co.uk/topics/politics/articles-reports/2017/03/07/how-left-or-right-wing-are-uks-newspapers">https://yougov.co.uk/topics/politics/articles-reports/2017/03/07/how-left-or-right-wing-are-uks-newspapers</a>			

*Table S 1 Political leanings of popular U.K. news media according to external ratings of outlets political bias.*

## Corpus stats

The analysis of news articles from different outlets was constrained by articles' availability in outlets online domains or Internet cache repositories. The temporal coverage of articles analyzed was based on online availability of at least 1 million articles' words per outlet and year. The number of articles per U.S. outlet and year exceeding our inclusion threshold of 1 million words per outlet/year is shown in Figure S 3. Overall, the U.S. outlets data set since the year 2000 is composed of over 18 million news articles.

# Number of articles per year U.S. news outlets

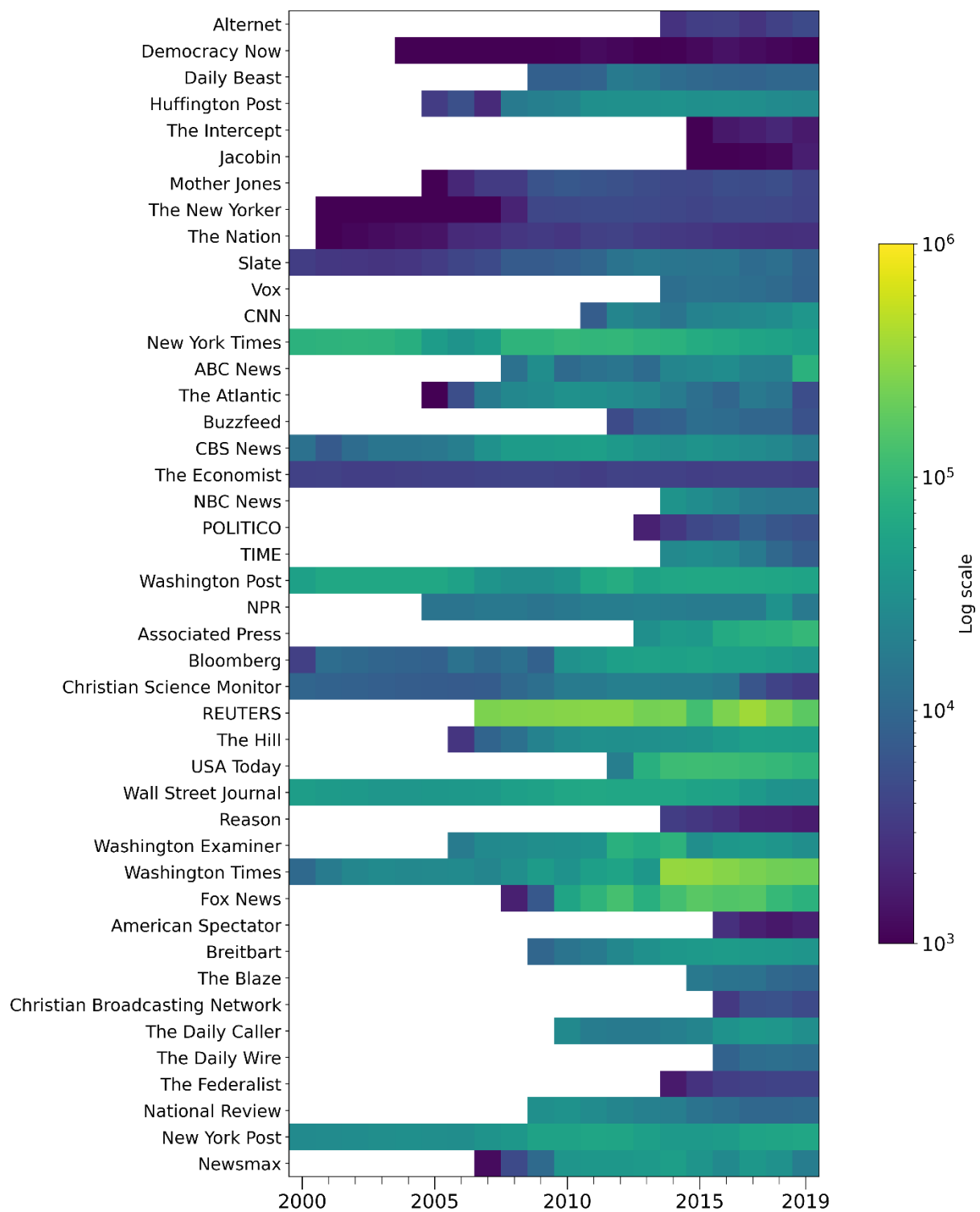


Figure S 3 Number of articles analyzed per U.S. outlet/year based on online availability of at least 1 million words of article content per outlet and year.

The number of articles per U.K. outlet and year exceeding our inclusion threshold of 1 million words per outlet/year is shown in Figure S 4. Overall, the U.K. outlets data set is composed of over 14 million news articles.

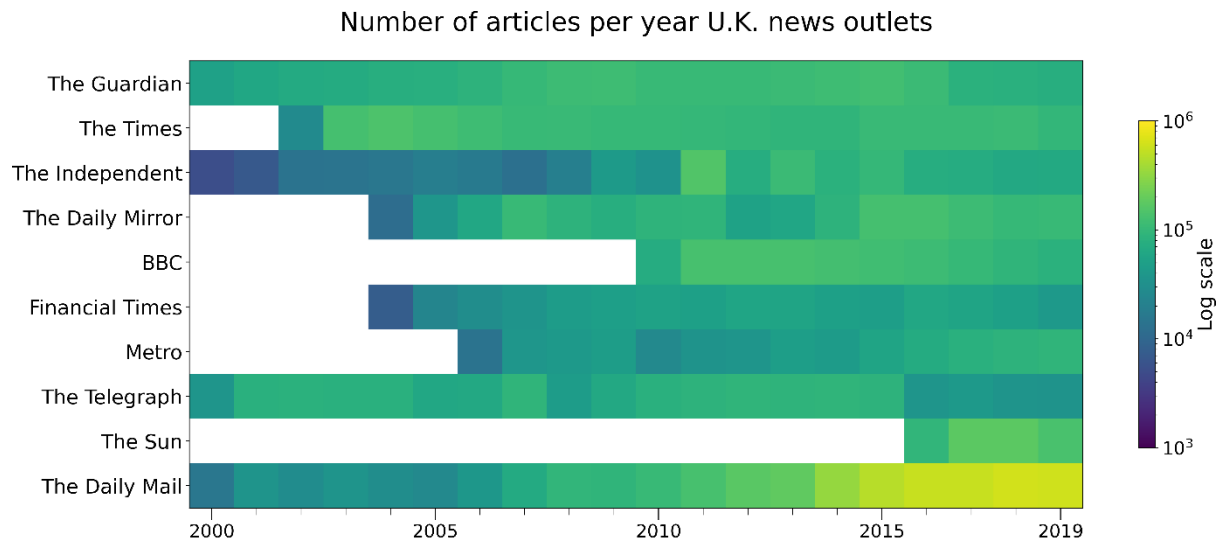


Figure S 4 Number of articles analyzed per U.K. outlet/year based on online availability of at least 1 million words of article content per outlet and year.

## Prevalence of words denoting political extremism in U.S. news outlets

We replicate the analyses in Figure 2 of the main manuscript using the 27 news outlets with stable news articles content since the year 2010.

### U.S. News Media\* Average Yearly Prevalence of Terms Denoting Right/Left Political Extremism

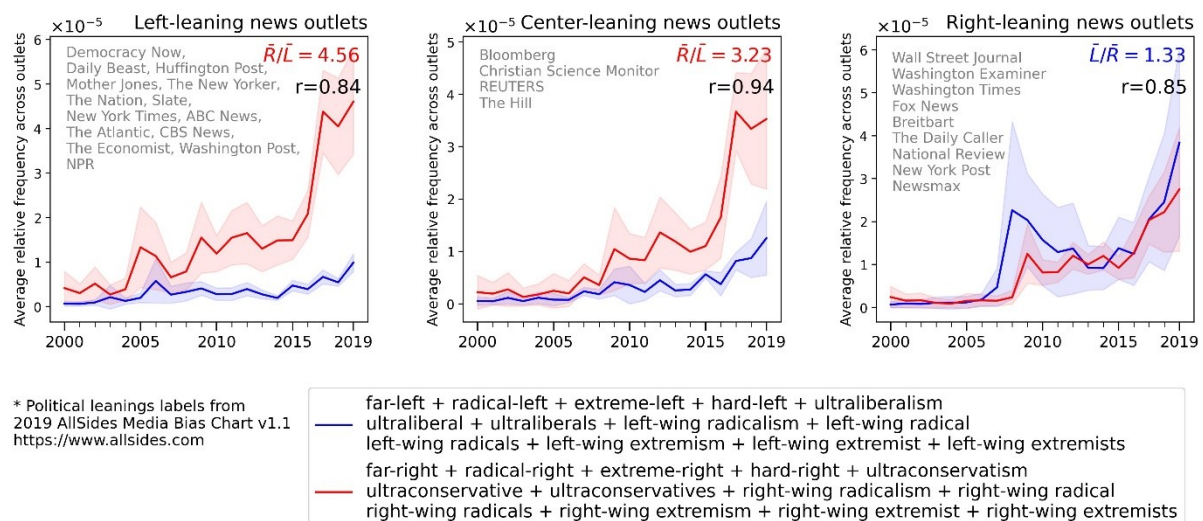


Figure S 5 Average yearly prevalence of an aggregate set of terms denoting far-right (red) and far-left (blue) political extremism in 27 popular news media outlets with article data availability since the year 2010 and arranged by outlets' ideological leanings according to human ratings from AllSides Media Bias Chart 2019 v1.1 [1]. Shaded areas indicate the 95% confidence interval around the mean. The average prevalence ratio between both time series ( $\bar{R}/\bar{L}$  or  $\bar{L}/\bar{R}$ ) is color-

coded according to which ratio is dominant. The Pearson correlation coefficient,  $r$ , between the time series is shown on the top right of each subplot.

We replicate the analyses in Figure 2 of the main manuscript using the 10 news outlets in our data set with availability of news articles content since the year 2000, see Figure S 6.

#### U.S. News Media\* Average Yearly Prevalence of Terms Denoting Right/Left Political Extremism

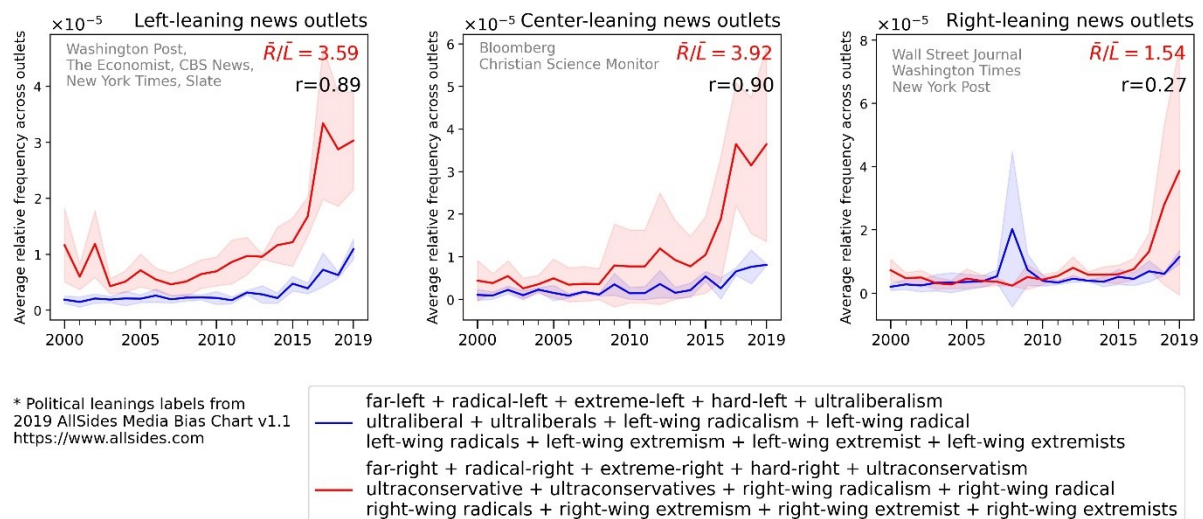


Figure S 6 Average yearly prevalence of an aggregate set of terms denoting far-right (red) and far-left (blue) political extremism in 10 popular news media outlets with article data since the year 2000 and arranged by outlets' ideological leanings according to human ratings from AllSides Media Bias Chart 2019 v1.1 [1]. Shaded areas indicate the 95% confidence interval around the mean. The average prevalence ratio between both time series ( $\bar{R}/\bar{L}$  or  $\bar{L}/\bar{R}$ ) is color-coded according to which ratio is dominant. The Pearson correlation coefficient,  $r$ , between the time series is shown on the top right of each subplot.

#### Prevalence of words denoting political extremism in U.K. news outlets

We replicate the analyses in Figure 3 of the main manuscript using the 6 U.K. news outlets in our data set with continuous news articles content since the mid-2000s, see Figure S 7.

## U.K. News Media\* Aggregate Yearly Prevalence of Terms Denoting Right/Left Political Extremism in 6 Popular News Media Outlets

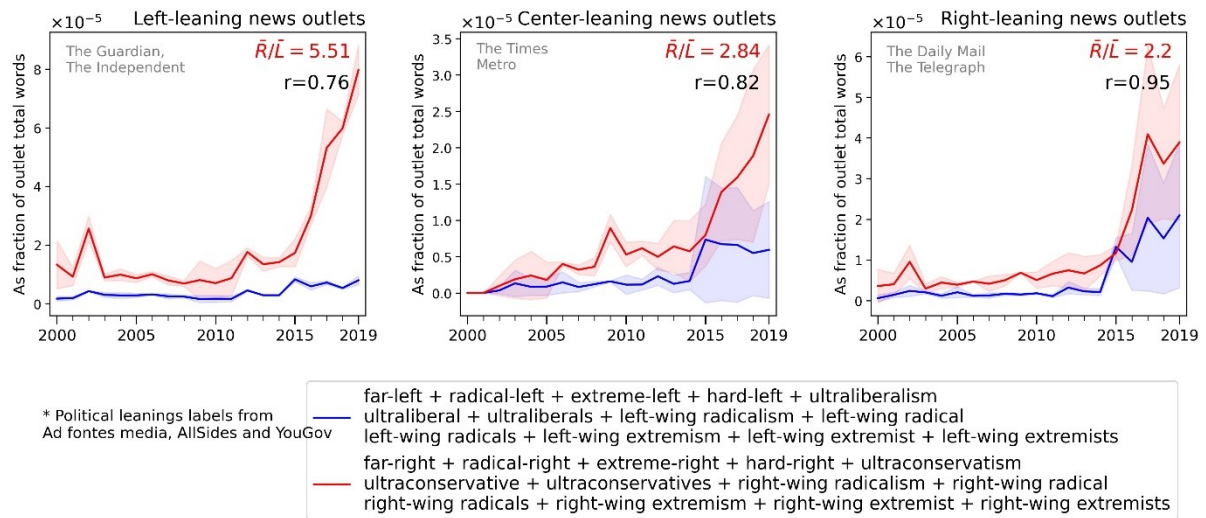


Figure S 7 Average yearly prevalence of an aggregate set of terms denoting far-right (red) and far-left (blue) political extremism in 6 popular U.K. news media outlets arranged by outlets' ideological leanings according to human ratings from Ad Fontes Media, YouGov and AllSides Media Bias Chart 2019 v1.1 [1]–[3]. Shaded areas indicate the 95% confidence interval around the mean. The average prevalence ratio between both time series ( $\bar{R}/\bar{L}$  or  $\bar{L}/\bar{R}$ ) is color-coded according to which ratio is dominant. The Pearson correlation coefficient,  $r$ , between the time series is shown on the top right of each subplot.

## References

- [1] Reprinted with permission from "AllSides Media Bias Ratings," AllSides, 2019.  
<https://www.allsides.com/blog/updated-allsides-media-bias-chart-version-11> (accessed May 10, 2020).
- [2] "The most popular newspapers in the UK | Media | YouGov Ratings."  
<https://yougov.co.uk/ratings/media/popularity/newspaper/all> (accessed Sep. 08, 2021).
- [3] Andrew McGee, "Interactive Media Bias Chart," Ad Fontes Media.  
<https://adfontesmedia.com/interactive-media-bias-chart/> (accessed Nov. 04, 2021).