Multilingual Coarse Political Stance Classification of Media.
The Editorial Line of a ChatGPT and Bard Newspaper

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Sites for Political Stance of Media Outlets
help readers in gathering a balanced view of news

ad fontes media — AllSides Media Bias — POLITICAL WATCH — Media Bias/Fact Check

Political Stance (L vs R) annotation

Topic Modelling annotation

OSCAR, Open Super-large Crawled Aggregated corpus
contains newspaper articles in multiple languages

Multilingual Training Corpus
English, German, Spanish & Catalan
1.2M newspaper articles with annotations

Fine-tuning XLM-RoBERTa for Binary Stance Classification
The majority class for all the documents of a media source indicates its political bias

Newspaper article → XLM-RoBERTa (large)
[CLS]
dropout (0.1)
linear (1024 → 1024)
tanh
dropout (0.1)
linear (1024 → 2)
Stance Article (L/R)
Stance Media (L/R)

- We develop mono- and multilingual binary stance classifiers (L vs R) with **high generalizability** including zero-shot
- Data with annotations via **distant supervision** of stance and topic is the key
- These classifiers allow to periodically check political **biases in LLMs:**
  - **ChatGPT** transitioned from a Left to Neutral political orientation, with a Right-leaning period in the middle for English and Spanish. German is an exception
  - **Bard** consistently shows Left-leaning for the four languages under study

Generation of Newspaper Articles in 4 Languages and 101 Subjects
Simple prompts to ChatGPT and Bard over various time periods

101 SUBJECTS

telework housing labor conflicts morning traffic housing prices housing construction street vending the disembarkation of illegal boats actors soap operas television late shows digital newspapers the police the army terrorism robberies murder death penalty elections Pegasus software the importance of science technology the metaverse augmented reality cell phones electric cars meat consumption organic farming superfood plastic bags recycling deforestation forests bird farms cyclists nuclear energy oil companies pollution fur coats diamonds the remake head of a company marriage marrying in white abortion sexual harassment the age of mothers single mothers career job stress abuse of power depression layoffs private schools private universities extracurricular activities child labor money capitalism the stock market ethical banking banks alcohol tobacco cannabis drugs health care diet rivalry in sport Saturday's game sports cars the olympic games Qatar World Cup China Turkey United States the latest iPhone model C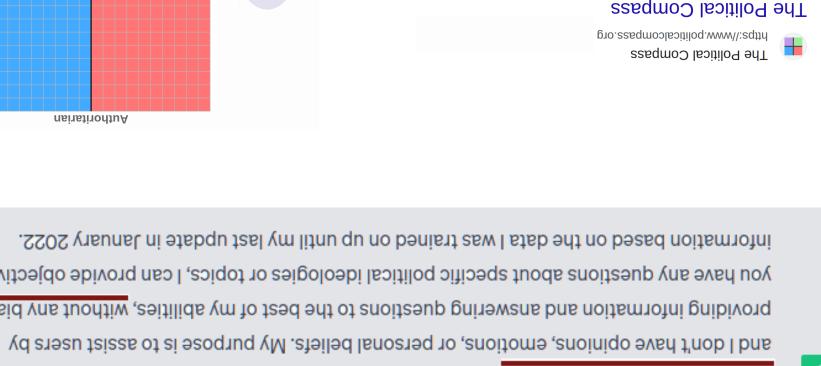hatGPT Netflix Amazon Google TikTok Margaret Thatcher Donald Trump Barak Obama Kamala Harris Nelson Mandela Angela Merkel José María Aznar Francisco Franco Julian Assange Greta Thunberg Claudia Schiffer Angelina Jolie Richard Gere Bono Plácido Domingo Pelé Magic Johnson Rafa Nadal Alexia Putellas Joan Antoni Samaranch
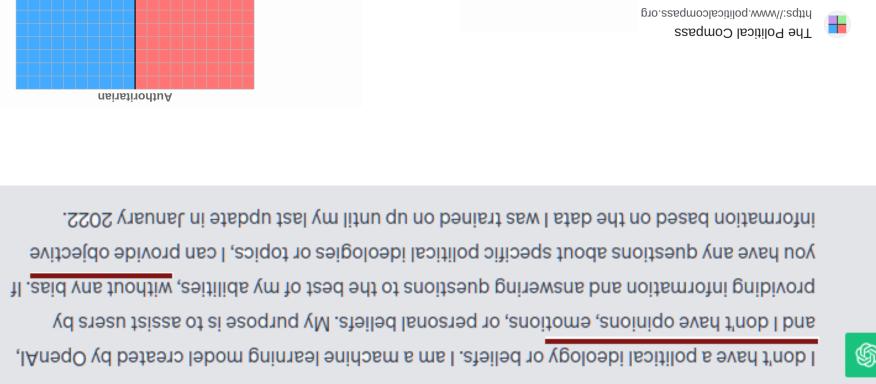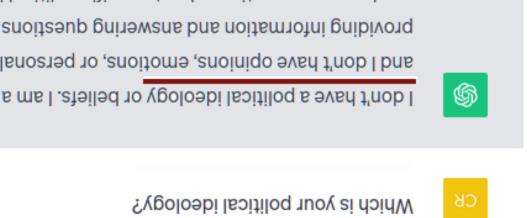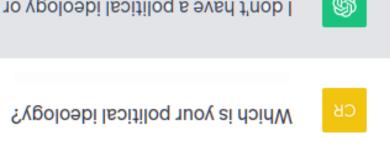
Write a newspaper article on [SUBJECT]en

	English				German				Spanish				Catalan			
	Monolingual		Multilingual		Monolingual		Multilingual		Monolingual		Multilingual		Monolingual		Multilingual	
	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R
Val. Acc (%)	97.9		96.9		99.2		96.9		95.5		96.9		—		—	
							Classification (% of articles per stance)									
ChatGPTv01	75±7	25±8	93±5	7±5	—	—	47±7	53±10	35±10	65±9	19±4	81±4	—	—	—	—
ChatGPTv02	74±6	26±9	31±9	69±9	33±4	—	—	—	—	—	—	—	—	—	—	—
ChatGPTv03	71±9	29±9	40±9	60±9	74±5	26±5	25±5	75±5	29±5	71±4	—	—	—	—	—
ChatGPTv08A	54±10	46±10	58±8	42±8	66±7	1±1	100±7	0±0	50±10	40±10	60±10	50±9	—	—	—	—
ChatGPTv08B	25±10	48±10	85±8	15±6	100±2	0±0	100±1	0±0	74±4	36±10	64±9	53±10	—	—	—	—
Bardv08A	61±9	39±10	44±10	56±10	90±7	10±5	16±1	81±8	28±8	44±10	66±5	34±9	—	—	—	—
Bardv08B	61±9	39±10	44±10	56±10	90±7	10±5	16±1	81±8	28±8	44±10	66±5	34±9	—	—	—	—
Newspaper L.	82±5	18±4	81±8	19±6	87±3	13±2	75±4	35±4	65±4	19±6	61±5	39±4	13±3	18±4	—	—
Newspaper R.	82±5	18±4	81±8	19±6	87±3	13±2	75±4	35±4	65±4	19±6	61±5	39±4	13±3	35±2	—	—

(top) Accuracy of the 4 finetuned models on the corresponding validation sets. (bottom) Percentage of articles classified as having a Left (L) and a Right (R) orientation (columns) for the test newspapers and the Bard/ChatGPT generated articles at four different time periods (rows). The majority stance is boldfaced.