

COVID-19: Using *News Sentiment* in Times of Crisis

Peter Hafez, Chief Data Scientist, RavenPack

EPIDEMIC/PANDEMIC NEWS EVENTS LEAD CONFIRMED COVID-19 CASES GLOBALLY

An increase in epidemic/pandemic news events were observed prior to the pick-up in confirmed COVID-19 cases. Below, the **green/grey** colours represent the amount of epidemic/pandemic news events detected for the country.



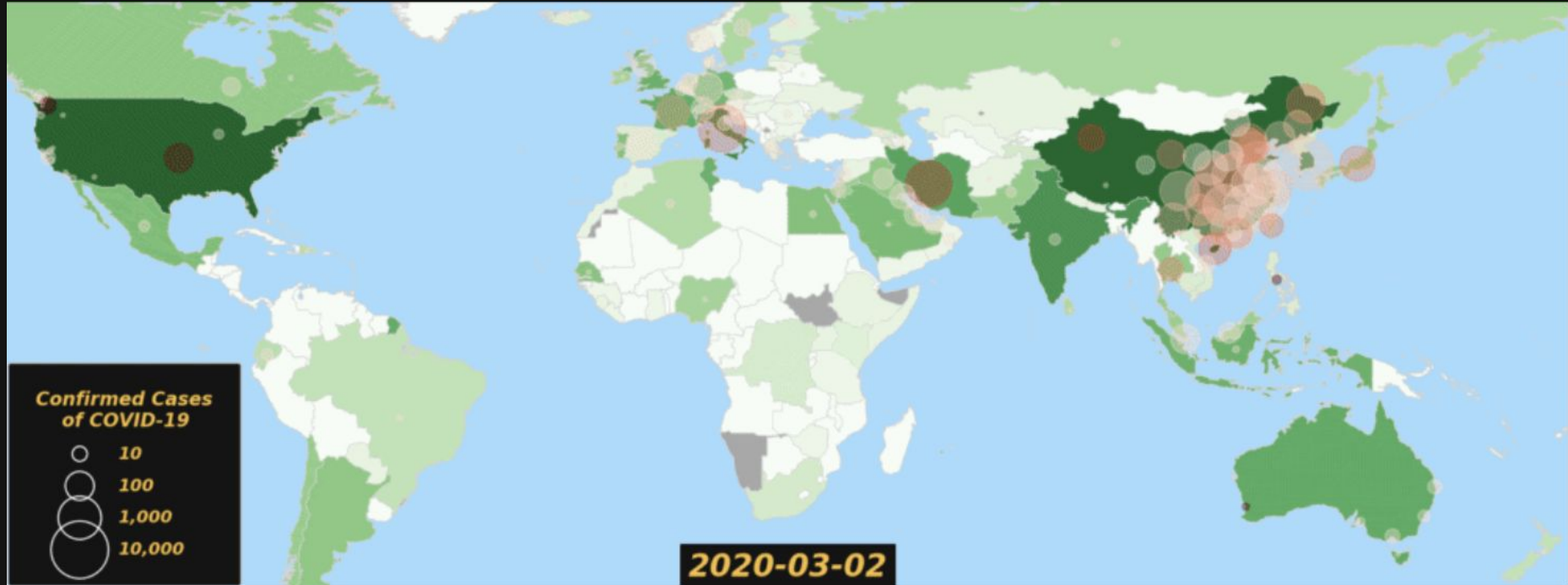
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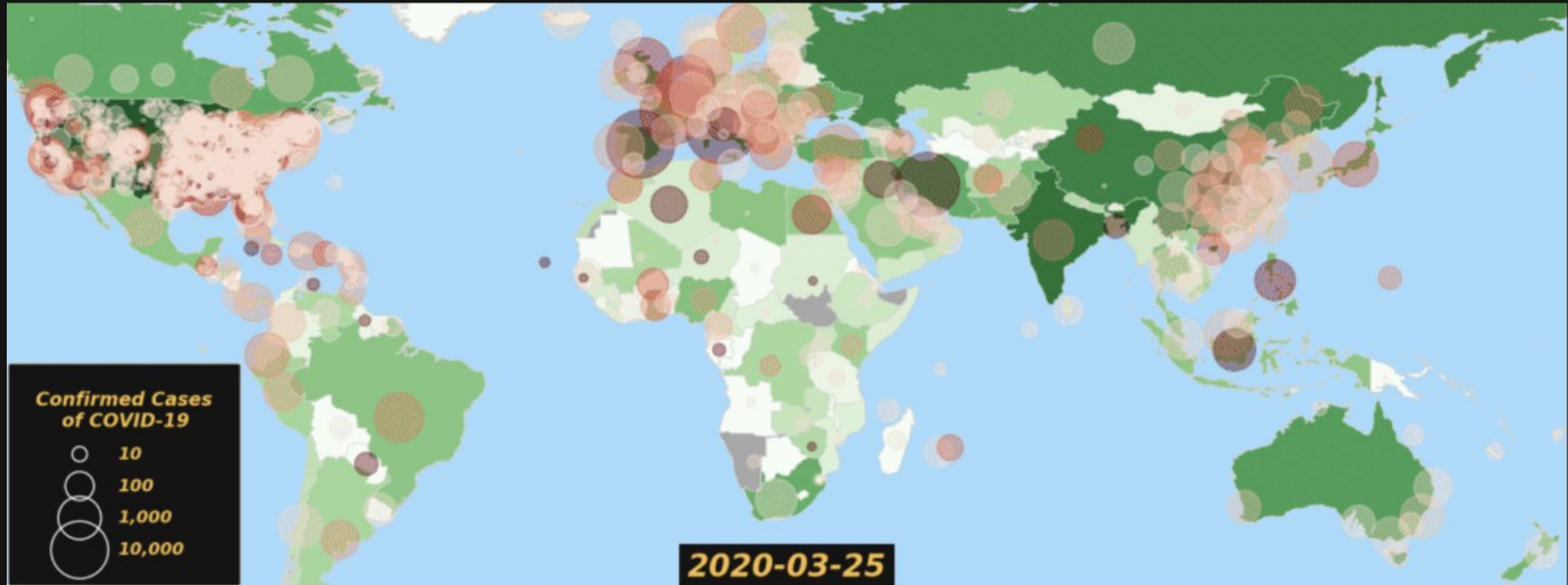
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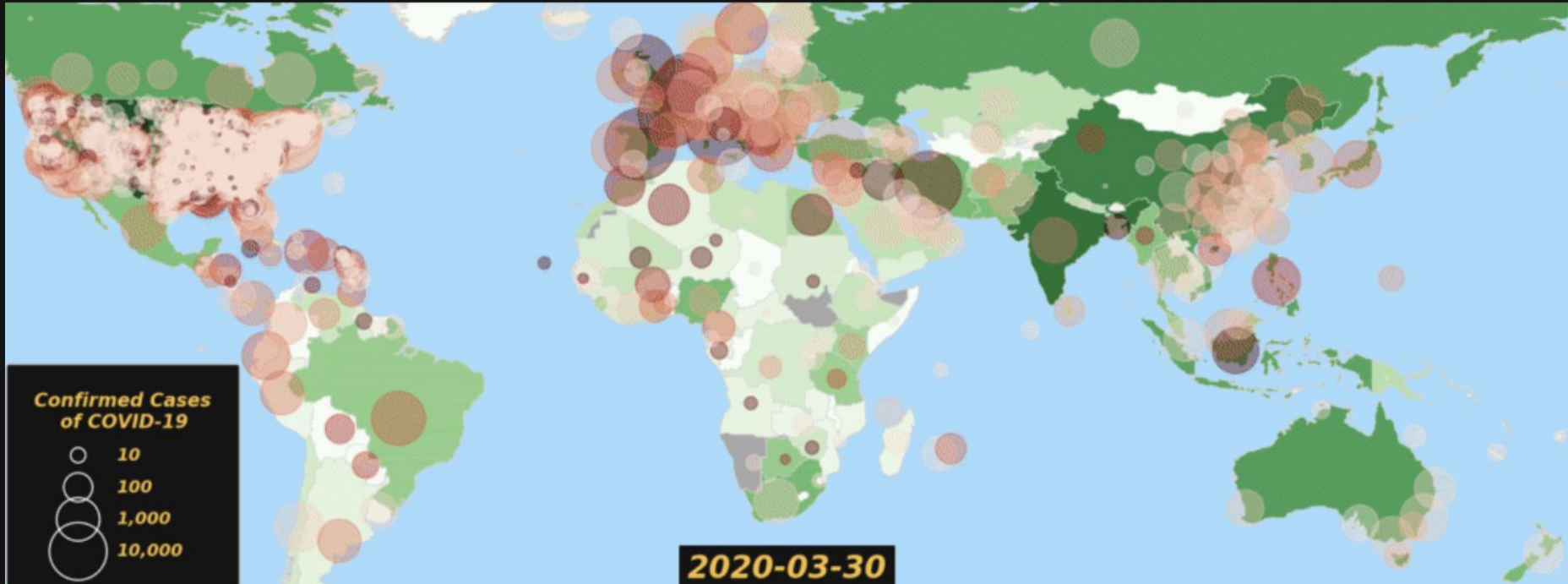
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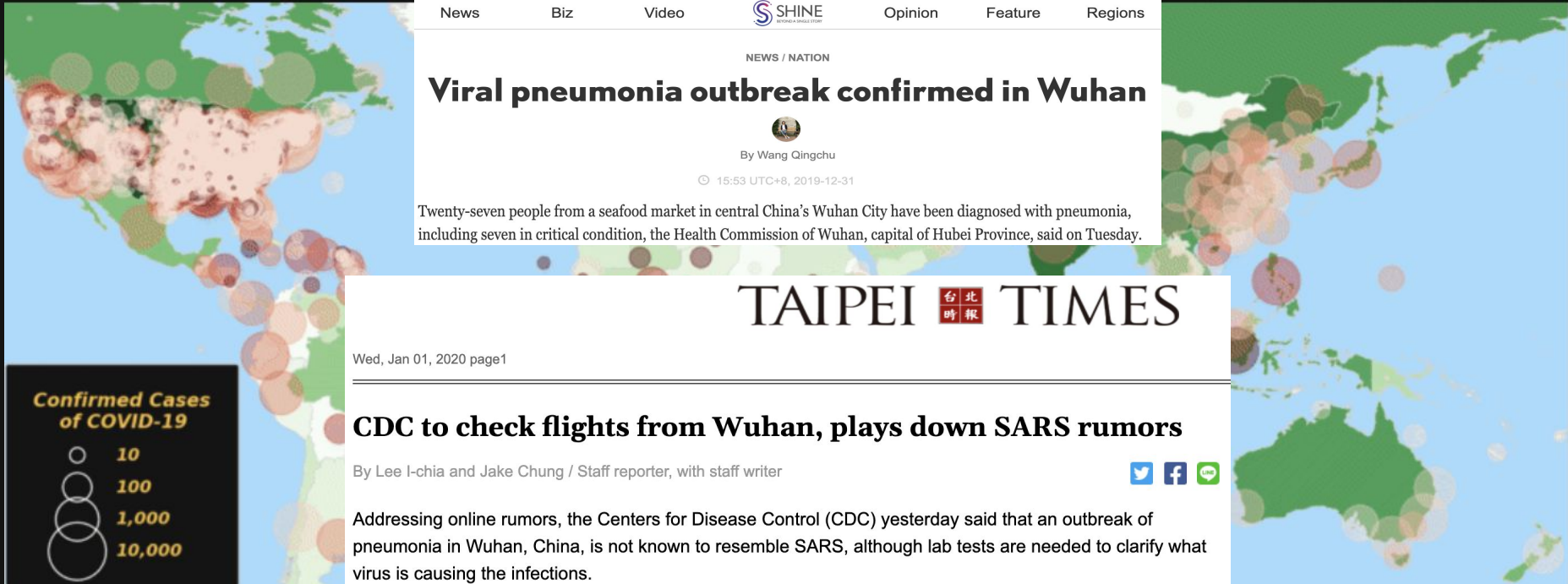
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News Biz Video **SHINE** Opinion Feature Regions

NEWS / NATION

Viral pneumonia outbreak confirmed in Wuhan

By Wang Qingchu

15:53 UTC+8, 2019-12-31

Twenty-seven people from a seafood market in central China's Wuhan City have been diagnosed with pneumonia, including seven in critical condition, the Health Commission of Wuhan, capital of Hubei Province, said on Tuesday.

TAIPEI **台 北 報** TIMES

Wed, Jan 01, 2020 page1

CDC to check flights from Wuhan, plays down SARS rumors

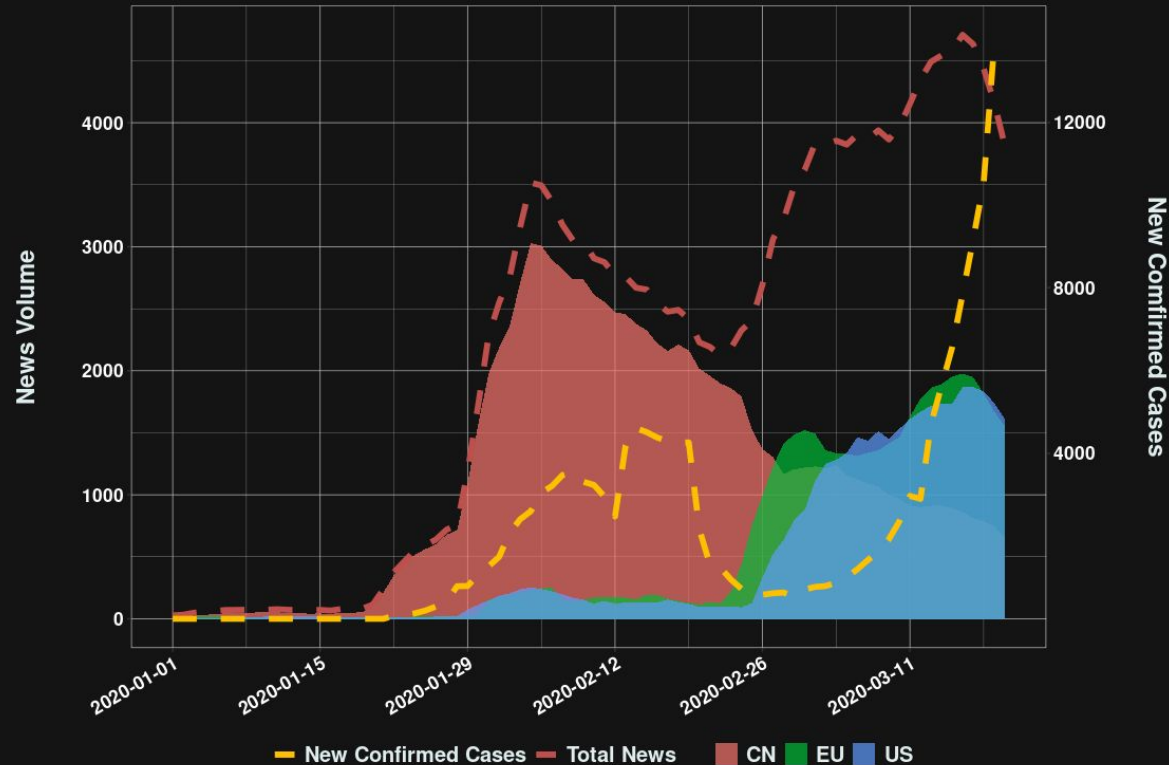
By Lee I-chia and Jake Chung / Staff reporter, with staff writer

Addressing online rumors, the Centers for Disease Control (CDC) yesterday said that an outbreak of pneumonia in Wuhan, China, is not known to resemble SARS, although lab tests are needed to clarify what virus is causing the infections.

Yesterday, a rumor spread online that the outbreak in Wuhan was a SARS-like infection, raising public concern.

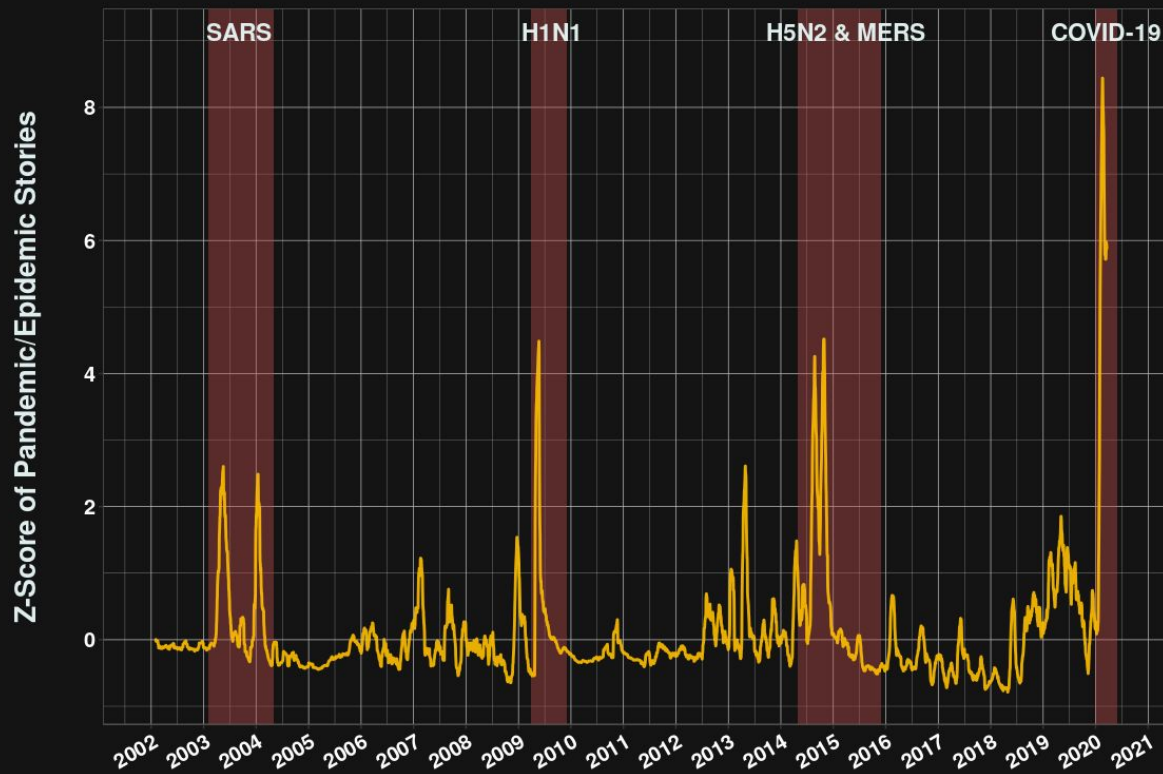
PANDEMIC NEWS VOLUME BY COUNTRY VS. NEW CONFIRMED COVID-19 CASES

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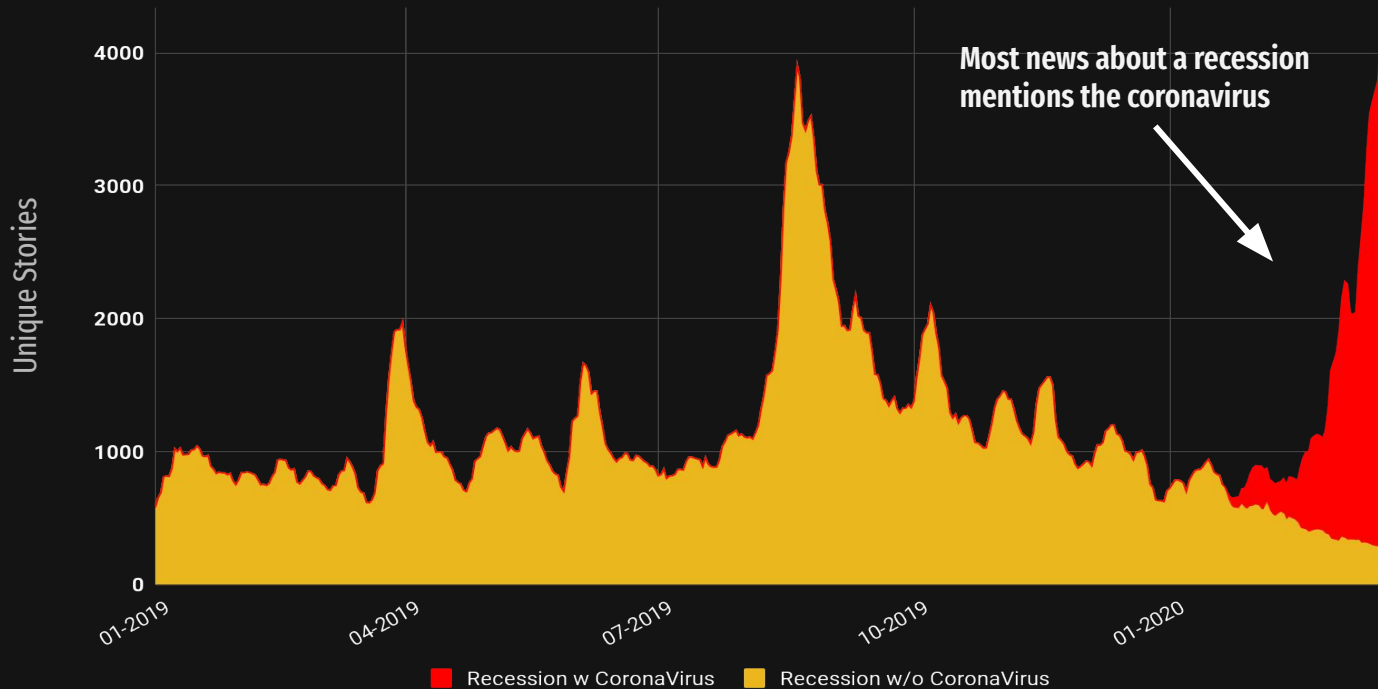
CORONAVIRUS BEATS OTHER RECENT OUTBREAKS ON MEDIA COVERAGE

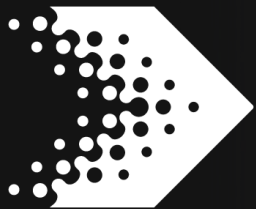
Abnormal media coverage related to pandemics/epidemics has been much greater during the coronavirus compared to previous breakouts during the last 20 years.



RECESSION CHATTER ON THE RISE - FUELED BY THE CORONAVIRUS

More than 94% of all news talking about a recession makes mention of the coronavirus, showing a clear linkage between the two topics and what is currently driving market fears.

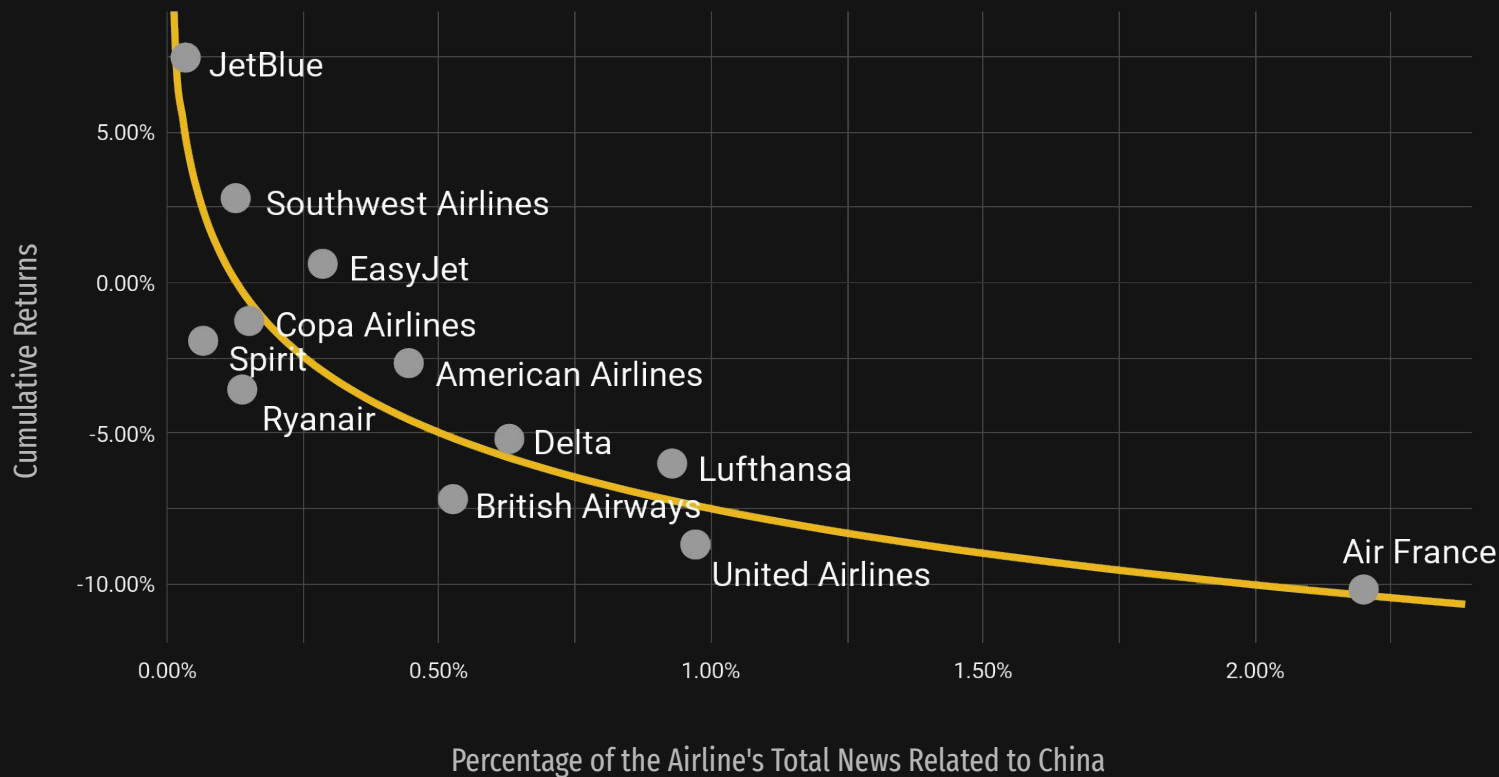




***USE-CASES: Airlines, Biotech, and
Sentiment***

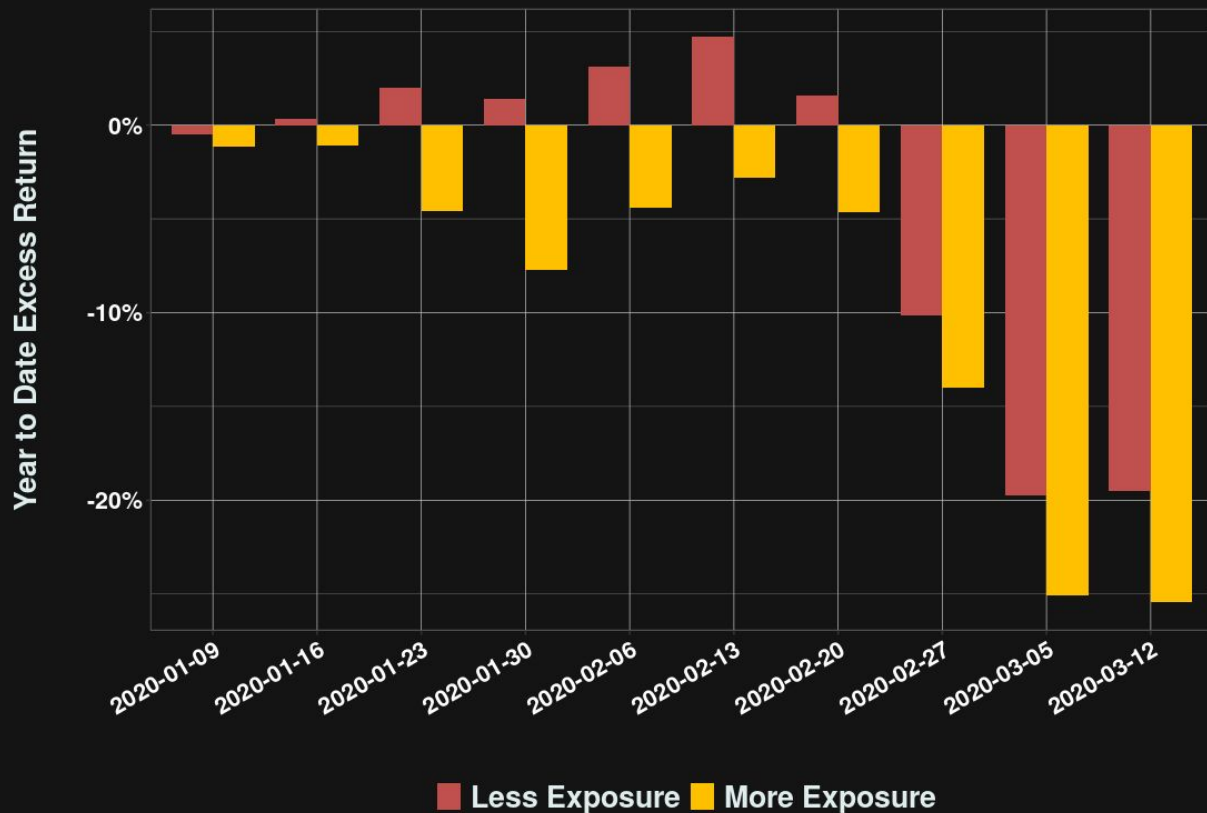
AIRLINES WITH MORE MEDIA EXPOSURE TO CHINA HIT HARDEST

Airline stocks with the most media exposure to China *significantly underperformed* during the first week when the coronavirus outbreak hit global equity markets on January 20, 2020.



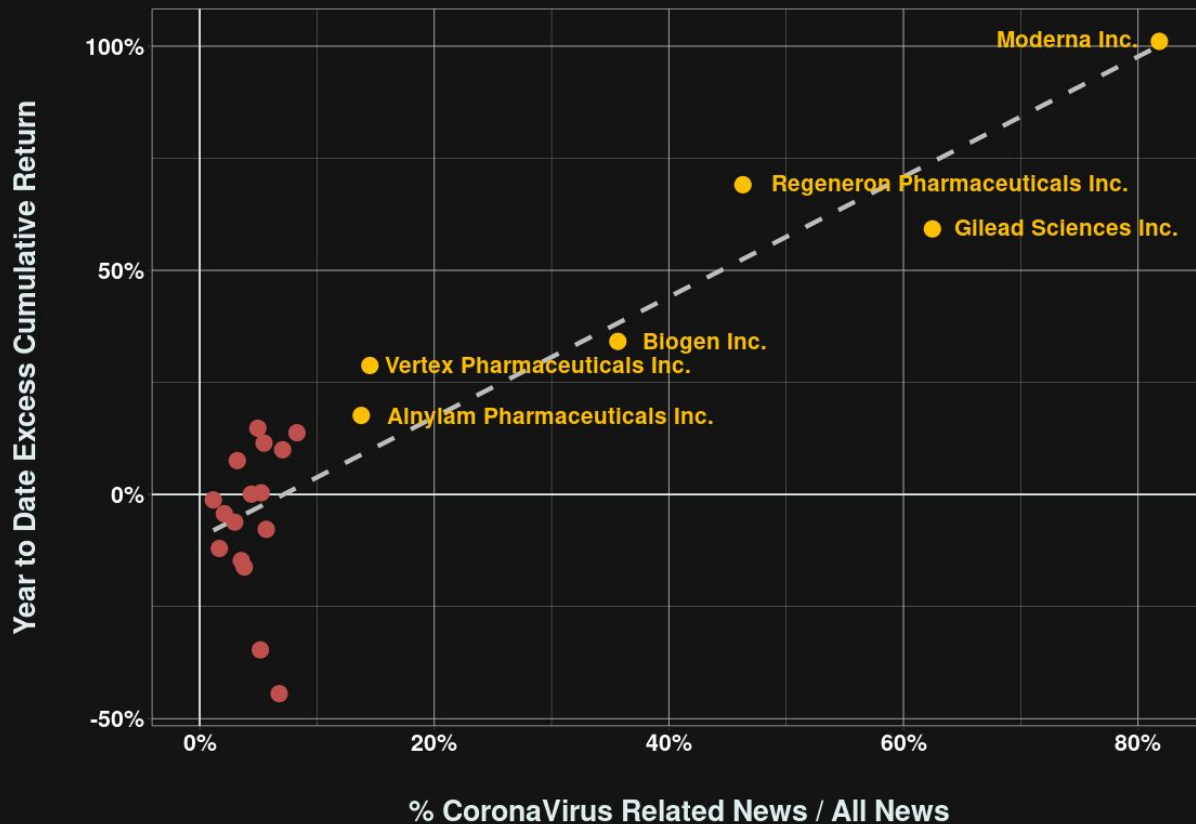
AIRLINES WITH MORE MEDIA EXPOSURE TO CHINA HIT FIRST

Airline stocks with the most media exposure to China significantly underperformed during the first week of the coronavirus outbreak. However, *other airlines caught up over the following month* as the virus spread globally.



BIOTECH WITH MORE MEDIA EXPOSURE TO CORONAVIRUS OUTPERFORMS

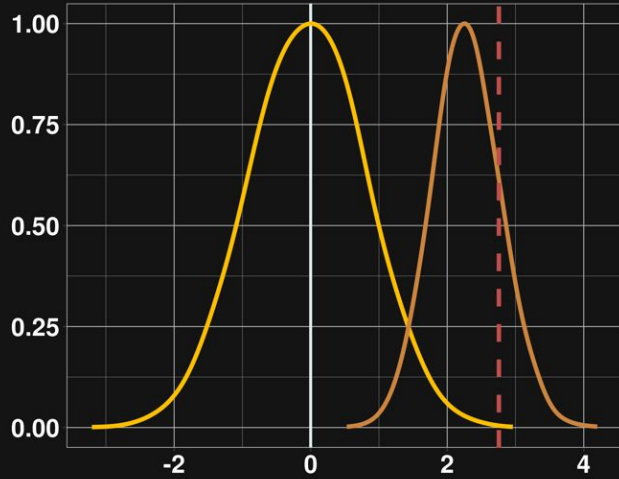
Biotech stocks with the most media exposure to coronavirus *significantly outperformed* their industry peers since the coronavirus outbreak.



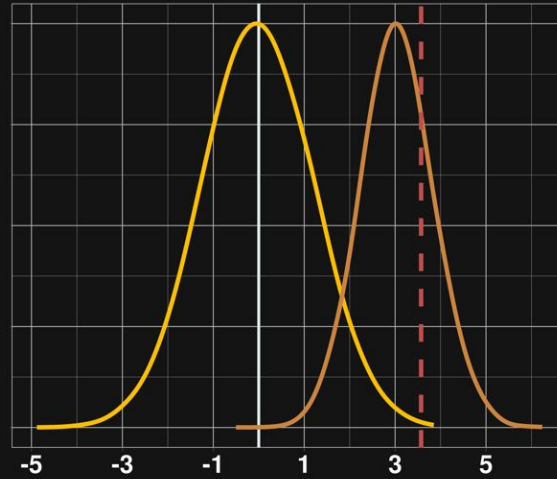
NEWS SENTIMENT IS A GREAT SIGNAL DIVERSIFIER THROUGH CRISIS PERIODS

Trading the spread between positive and negative sentiment stocks offer significant outperformance through periods of market stress.

Financial Crisis Oct. 2007 to Mar. 2009



Greek Debt Crisis May. 2015 to Feb. 2016



Coronavirus Crisis Feb. 2020 to Mar. 2020



Information Ratio

+ Fully Random + Random w Probability of Sentiment + Extreme Sentiment Portfolio



COVID-19 Cases

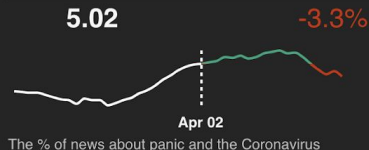
Total Cases **964,603** +3.4%

Total Recovered **203,274** +5.2%

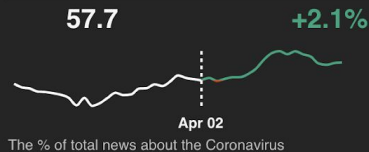
Total Deaths **49,242** +5.1%

Changes since midnight UTC

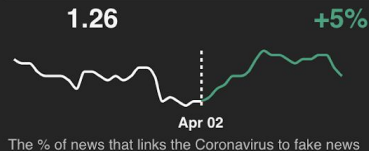
Panic Index



Media Hype Index

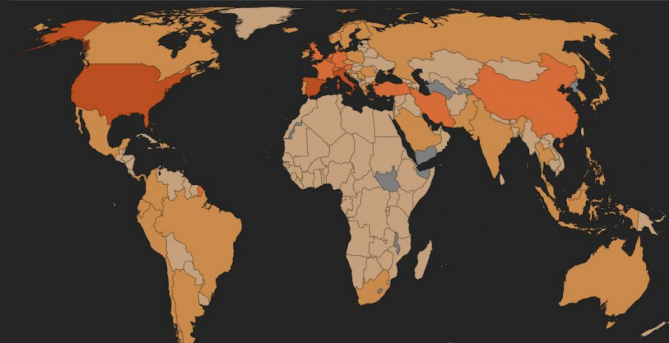


Fake News Index



Geographical Exposure

Confirmed Cases Sentiment Media Exposure



The map shows the geographical impact of COVID-19

Media Exposure to Coronavirus

	Country	Airlines	Food & Beverages	Financials	+	>
NAME					↓ RATIO	1D CHG
1	USA				73.31	+0.6%
2	UK				20.07	+3.1%
3	Canada				16.42	-2%
4	China				15.29	-3.2%
5	India				12.28	-2.3%
6	Italy				8.37	+5.8%

News Flashes

A minute ago | [Defense-Aerospace](#)
Coronavirus: US agency seeks 100,000 body bags

2 minutes ago | [Syracuse Post-Standard](#)
Exercise equipment you can buy for home workouts as coronavirus quarantine continues

2 minutes ago | [Business Insider](#)
A worker at Panasonic's joint factory with Tesla reportedly tested positive for the coronavirus (TSLA)

2 minutes ago | [IAfrica](#)
SA In For Terrible Crisis If COVID-19 Trajectory Follows Italy, Warns Doctor

Related Topics

	RELATED TOPIC	↓ RATIO	1D CHG
1	Social Distancing	16.97	-3.78%
2	Fear	13.52	-0.58%
3	Test Positive	10.23	-7.87%
4	Confirmed Cases	9.62	-0.35%
5	Layoffs	6.24	+6.75%
6	Face Mask	4.39	+3.43%
7	Fines	4.36	-22.68%
8	Recession	4.12	-3.47%

COVID-19 NEWS MONITOR: GETTING A 360 DEGREE VIEW

Provides various perspectives on media coverage covering the coronavirus, including anything from tracking the level of panic, the media hype, sentiment, or information contagion.

Panic Index

5.02

-3.3%



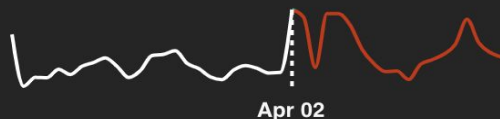
Apr 02

The % of news about panic and the Coronavirus

Global Sentiment Index

-57.92

-11.2%



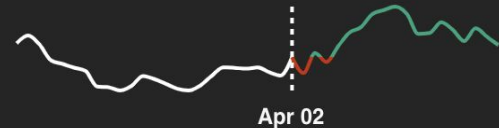
Apr 02

The level of sentiment from all news about the Coronavirus

Contagion Index i

62.21

+0.8%



Apr 02

The % of entities in the news linked to the coronavirus

Media Hype Index

57.7

+2.1%



Apr 02

The % of total news about the Coronavirus

Fake News Index

1.26

+5%



Apr 02

The % of news that links the Coronavirus to fake news

Media Coverage Index

82

+1.8%



Apr 02

The % of all news sources covering the Coronavirus



COVID-19 Cases

Total Cases **964,100**

Total Recovered **203,100**

Total Deaths **49,100**

Changes since midnight UTC

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Coronavirus Panic Index

5.02 -3.3%

Latest Value Daily Change

Last Updated: Apr 2nd, 10:39:27 CEST

1D 1W 1M **YTD**

Linear Scale

Add a comparison

Panic Index

Media Hype Index



The Coronavirus Panic Index measures the level of news chatter that makes reference to panic or hysteria and coronavirus. Values range between 0 and 100 where a value of 7.00 indicates that 7 percent of all news globally is talking about panic and COVID-19. The higher the index value, the more references to panic found in the media.

5 India

12.28

-2.3%

6 Italy

8.37

+5.8%

8 Recession

↓ RATIO

1D CHG

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4.12

-3.47%

100,000 body bags

for home workouts as

story with Tesla reportedly

COVID-19 Trajectory Follows Italy,



COVID-19 Cases

Total Cases 96

Total Recovered 20

Total Deaths 4

Changes since midnight UTC

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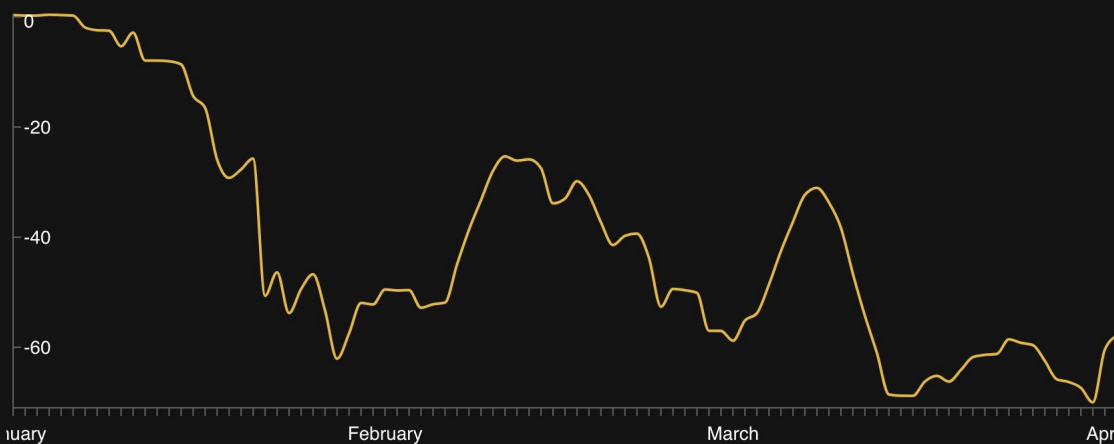
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Last Updated: Apr 2nd, 10:39:58 CEST

1D 1W 1M YTD

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The Coronavirus Sentiment Index measures the level of sentiment across all entities mentioned in the news alongside the coronavirus. The index ranges between -100 and 100 where a value of 100 is the most positive sentiment, -100 is the most negative, and 0 is neutral.

4	China	15.25	-0.27%
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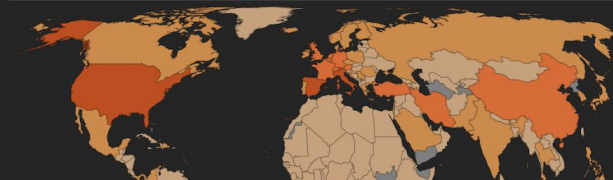
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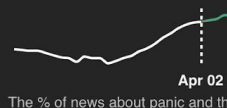
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Fake News Index

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THIS IS FREE: GO TO
CORONAVIRUS.RAVENPACK.COM

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