

Follow current topics

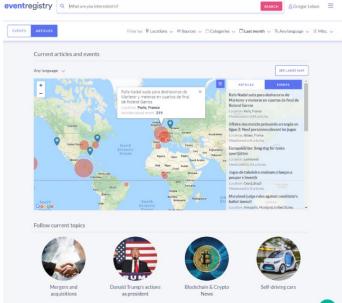
## Who are we

- Spin-off from AI Lab at Jozef Stefan Institute
- Started in 2017 through Google funding
- Experts in AI, text understanding and information extraction
- Our top customers: Bloomberg, IBM, Deloitte, EY, Stratfor, Stanford, Harvard, ...

## What is Event Registry?

- Encyclopedia for world events
- Event registry is a system for
  - collecting news content published globally (40 langs, ~700.00 articles daily)
  - Analysis of news and automatic identification of world events

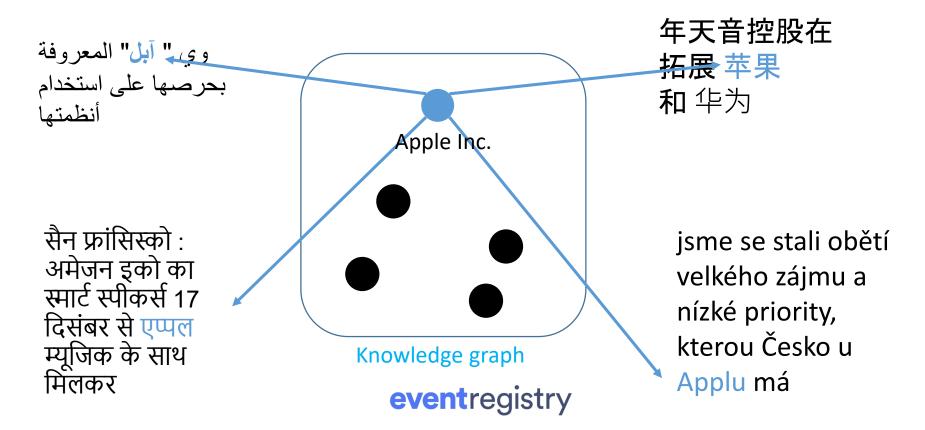
- Extraction of core event information
- Extensive search and visualization options



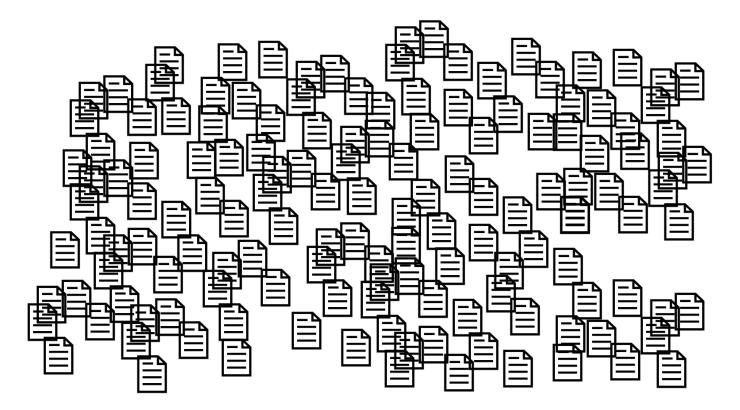
Taiwan's       Foxconn hopes to resume half of its production in China by month-end, a source told Reuters on February 12, as the supplier to CHINA         Taiwan       Foxconn         Foxconn       REUTERS
tech giant Apple and others reopens plants shut over a coronavirus outbreak. APPLE INC.
The world's largest contract electronics maker also aims to resume 80 percent of production in China in March, added the source, who has ELECTRONICS CHINA
direct knowledge of the matter, citing internal targets set by Chairman Liu Young-Way.
Foxconn's reopenings after the Lunar New Year holiday were delayed by the rapid spread of the virus in China, which has killed more than CHINASE NEW YEAR CHINA
1,100 people, as the World Health Organization warned against a global threat potentially worse than terrorism. WORLD HEALTH ORGANIZATION
"Chairman Liu hopes by end of February the production could reach 50%," said the person, who declined to be identified in the absence of
authorisation to speak publicly.
"Shipments will be affected, but it's too early to give an exact number. We might still have a chance to make it with overtime, but we also need
to monitor consumer sentiment to come for the end products," the source added. COMPUTER MONITOR
The reference was to electronics, including smartphones. ELECTRONICS SMARTPHONE
Foxconn did not immediately respond to email and telephone calls to seek comment. FOXCONN EMAIL TELEPHONE
Foxconn got the green light this week to reopen major plants in China, and its plant in the eastern city of Kunshan was also approved on FOXCONN RUNSHAN
Tuesday to resume production, an internal document reviewed by Reuters showed. REUTERS
But just about a tenth of the workforce had returned to two key plants in southern Shenzhen and central Zhengzhou as of February 10, a SHENZHEN ZHENGZHOU
source told Reuters.

## Same knowledge graph used for different languages

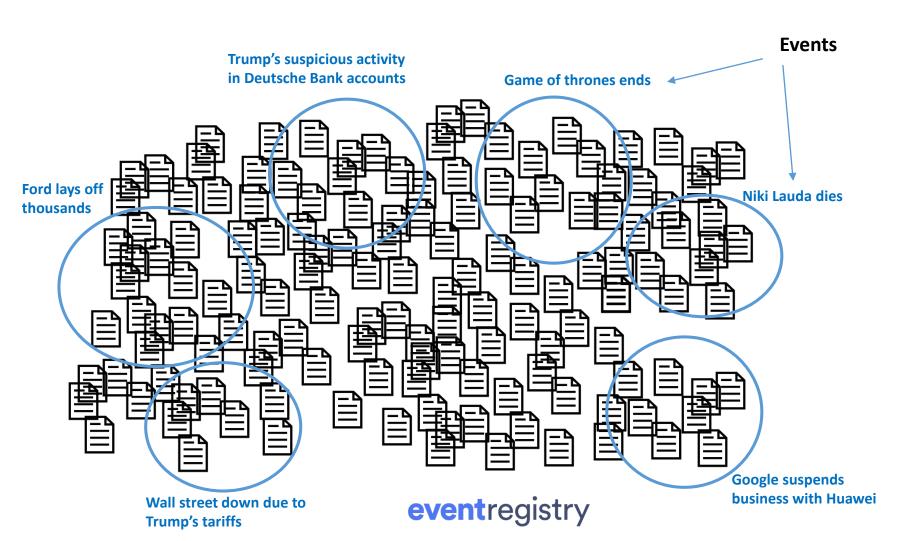
• The meaning has to be extracted from text in different languages and scripts



## How to reduce content overload?

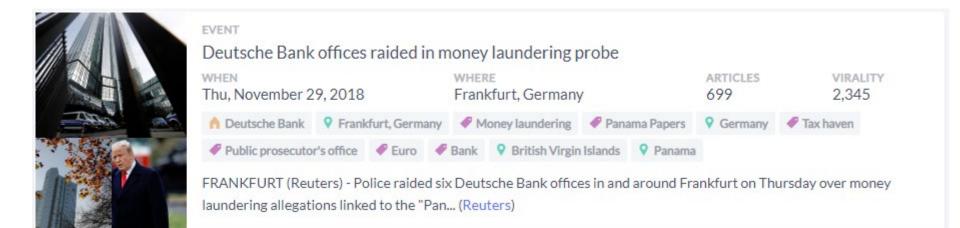


## How to reduce content overload?



## What is an event?

- Event = collection of news articles that discuss the same thing that happened
- Assumption: If something is significant → reported by various news publishers



#### Deutsche Bank Offices Are Searched in Money Laundering Investigation

#### WHEN

Thu, November 29, 2018

#### LOCATION

Frankfurt, Germany

#### CATEGORIES

news→Business Business→Financial Services→Banking Services Business→Financial Services→Holding Companies Business→Financial Services

One hundred seventy officers searched the headquarters of Deutsche Bank in Frankfurt and five other sites in the area early Thursday as part of a money-laundering investigation involving hundreds of millions of euros, prosecutors in Frankfurt said.

Two employees, who were not publicly identified but whose ages were given as 50 and 46, and other "unidentified people in positions of authority" are suspected of failing to report possible money laundering for transactions worth 311 million euros,

Title and summary extracted from: The New York Times



#### **f У** in ∠





Donald Trump's biggest lender was just raided in a money laundering

#### Articles

Below is a list of articles describing the event.

VIEW: List V SORT BY: Shares on social media V Event is reported in 20 languages. Showing articles in: Japanese (10 articles) English (229 articles) + Settings Spanish (67 articles) Portuguese (26 articles) Italian (28 articles) ドイツ銀行 マネーロンダ 包捜査 **SPUTNIK** 日本 French (44 articles) Fri, 30 Nov 2018, 13:57 スプートニク日本 Russian (41 articles) **f**41 フランクフルト・アム・マイン検察 捜査は今夏から行われている。 Arabic (22 articles) 捜査は2013年から20 50歳と46歳の2人の社員 Turkish (32 articles) Japanese (10 articles) Slovene (6 articles) Croatian (12 articles) ドイツ銀行に家宅捜索 CNN.CO.JP Czech (12 articles) Fri, 30 Nov 2018, 10:06 資金洗浄の疑いでドイツ銀行? st/AP Polish (9 articles) f 15 ロンドン(CNNBusin Hungarian (9 articles) × Dutch (11 articles) Greek (41 articles) Romanian (15 articles) Bulgarian (13 articles) ドイツ銀行を家宅捜索 関連か:朝日新聞デジ 朝日新聞(ASAHI SHIMBUN) Ukrainian (5 articles) タル Thu, 29 Nov 2018, 13:45 朝曰新聞 Persian (8 articles) ドイツの検察当局は29日、 f 11 也を利用したマネーロンダリング DIGITAL by 朝日新聞 (資金洗浄)にかかわった疑いがあるとして、フランクフルトにある同行本部などを一斉に家宅捜 索した。検察当局によると、同...



#### ドイツ銀行本店など捜索資金洗浄に関わった疑い | NHKニュース

ドイツの検察当局は、各国首脳らの資金隠しなどを暴いた「パナマ文書」の分析に基づく捜査 で、ドイツ銀行が租税回避地=タックスヘイブンを使った資金洗浄に関わった疑いがあるとして、銀 行の本店などを捜索しました...

#### NHK Fri, 30 Nov 2018, 00:06

**f**7

## Examples of events



EVENT								
Magnitude 7	'Earthqua	ke Shakes Anchora	age					
WHEN		WHERE					CLES	VIRALITY
Fri, November	30,2018	Anchor	age,	Alaska, United St	ates	1,18	30	15,064
Earthquake	Anchora	ge, Alaska, United States	9	Alaska, United States	🖉 Tsu	nami	A United St	ates Geological Survey
Aftershock	A Twitter	Moment magnitude s	cale	<b>Q</b> United States	Tsuna	mi warı	ning system	Epicenter

A magnitude 7 earthquake struck about eight miles north of Anchorage, Alaska, on Friday morning, according to the United States Geological Survey, cau... (The New York Times)

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EVENT					
'Parasite' Wins th	e Oscar for Be	st Picture, Makin	g History		
WHEN	WHERE:		ARTICLES	VIRALITY	SENTIMENT
Sun, February 09, 2	020 Hollywo	od, United States	1,624	0	
Academy Awards	South Korea	Academy Award for	Best Picture	A Bong Joon-ho 9 Hol	lywood, United States
Film Academ	y Award for Best Dir	ector 🔒 Brad Pitt	♀ Los Angele	s, United States 🔒 Joaqu	in Phoenix

The South Korean thriller is the first movie not in English to win the top Academy Award. Ninety-two years of Oscar history were shattered Sunday nig... (The New York Times)

#### EVENT

Plane breaks into pieces after skidding off runway in Istanbul

WHEN Wed, Februa	ary 05		where: Istanbul, Turl	key	ARTI0 1,51		VIRALITY 739	SENTIMENT
💡 Istanbul, T	urkey	<b>Q</b> Turkey	🛷 Runway	Airport	<b>Q</b> İzmir	<b>Q</b> Airplane	A Pegasus Airlines	🛷 Ali Yerlikaya
Fuselage	Ø Bo	eing 737	Governor	Airliner	Airline	Television	💄 Sabiha Gökçen	Low-cost carrier

ANKARA, Turkey -- A plane broke into pieces after it skidded off the runway and crashed into a field at Istanbul's Sabiha Gokcen Airport on Wednesday.... (NBC News)

## Extracting event information

- Use articles assigned to the event to extract event information
- Information to extract:
  - Location
  - Event date
  - Main event entities and keywords
  - Event categories
  - Event title and snippet



## **#1: Following a broad topic**

- Media monitoring find news and events related to some topic of interest
  - 4<sup>th</sup> industrial revolution
  - Latest developments in biogenomics
  - Monitoring cybersecurity
- Users: geopolitical organizations (Stratfor), companies monitoring their area of development

## #1: Following a broad topic (2)

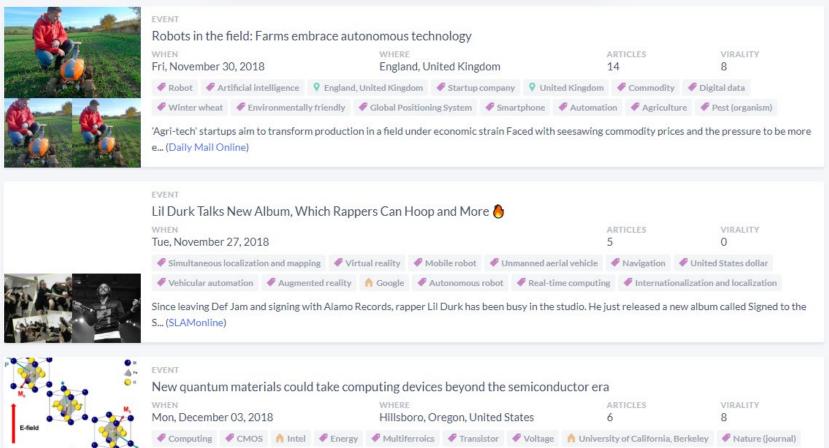
Home >,	/themes/	4th-indu	istrial-re	evolution
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#### Configure topic page 🔨

Add conditions		Topic definition	
Interests 🚱	What are you interested in?	Interests	Required 📀
	What are you merested m.	Artificial intelligence	low High 🗸 🗙
Source 🕜	Name of the news source By nam	ev PRobotics	LOW HIGH V X
Category 🚱	Pick V Category name	Autonomous car	LOW HIGH V X
		Internet	low High V X
Location 🔞	Article/event location name	Computing	LOW HIGH V X
		Supply chain	LOW HIGH V X
Filters		Automation	LOW HIGH V X
Article duplicates 🕜	Hide article duplicates	Unmanned aerial vehicle	LOW HIGH V X
-		Robot	low 🗾 High 🗸 🗙
Content at most 🔞	5 days old	Geopolitics	LOW HIGH V X
Source ranking 🕜	000000000	Agriculture	LOW HIGH V X
Limit to languages 🔞	English 🗸	🛷 Digital data	LOW HIGH V X
Data type 🔞	✓ News PR Blogs	Developed country	low 🗾 high 🗸 🗙
		Silicon Valley	low 🗾 high 🗸 🗙
		4 Jactronice	1000 C

Options V

## #1: Following a broad topic (3)



🖉 Logic 🖉 Topology 🖉 Binary number 🧳 Magnetism 🗳 Volt 🗳 Bit 🗳 Computer 🏠 Lawrence Berkeley National Laboratory

Researchers from Intel Corp. and the University of California, Berkeley, are looking beyond current transistor technology and preparing the way for a ... (phys.org)



EVENT			
Use of drones, AI will change the	face of agriculture sector: Devendra Fad	Inavis	
WHEN	WHERE	ARTICLES	VIRALITY
Thu, November 29, 2018	Navi Mumbai, India	7	0
A	and the second	1	1

## #1: Following a broad topic (4)







The ultimate guide to gifting STEM toys: tons of ideas for little builders Welcome to TechCrunch's 2018 Holiday Gift Guide! Need more gift ideas? Check out our Gift Guide Hub. The holiday season is here again, touting all sorts of kids' toys that pledge to pack 'STEM smarts' in the box, not just the usual battery-based fun. TECHCRUNCH Wed, 28 Nov 2018, 21:01 \$ 558

IEEE SPECTRUM: TECHN... Fri. 30 Nov 2018, 15:24

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Robots in the field: farms embracing autonomous technology EAST MEON, England (AP) -- Faced with seesawing commodity prices and the pressure to be more efficient and environmentally friendly, farmer Jamie Butler is trying out a new worker on his 450-acre farm in England's Hampshire countryside. SAN FRANCISCO GATE Fri, 30 Nov 2018, 03:59



#### 60 Cybersecurity Predictions For 2019

I've always been a loner, avoiding crowds as much as possible, but last Friday I found myself in the company of 500 million people. The breach of the personal accounts of Marriott and Starwood customers forced us to join the 34% of U.S. consumers who experienced a compromise of their personal ...



#### The center is not holding -- and Trump is our proof

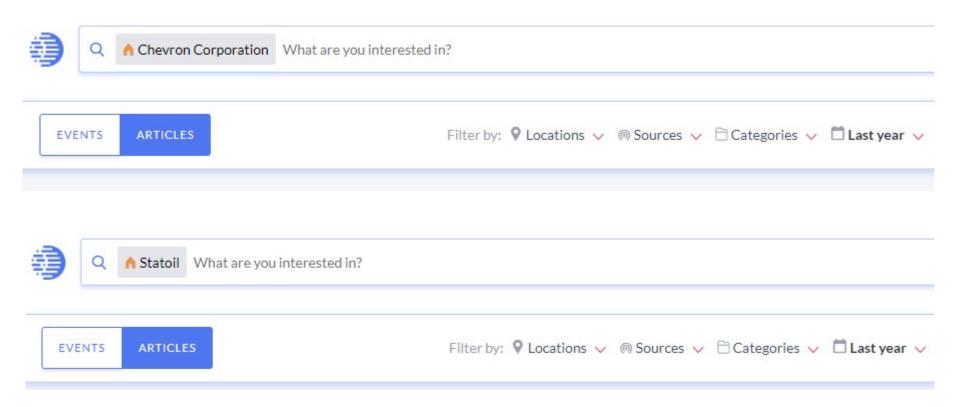
ALTERNET Sat, 01 Dec 2018, 07:47

As the world's pre-eminent heads of state gather in Buenos Aires, Argentina, this weekend for the annual G-20 summit, the postwar order has never looked more fragile. War threatens to break out at any moment between Russia and Ukraine, Britain is staring into the abyss of a failed Brexit negotiation ...

## #2: brand monitoring and comparison

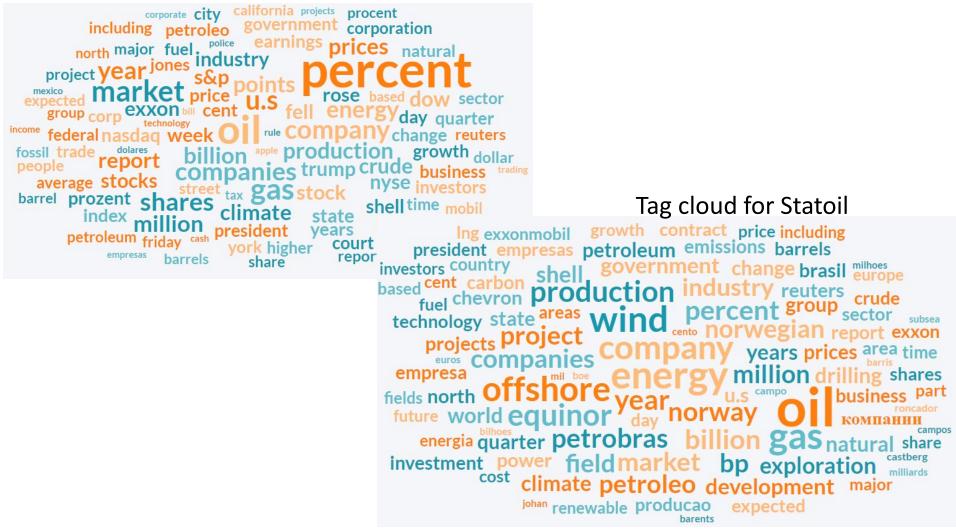
- Compare how is your brand perceived in the media and comparison with other brands
- Users: consulting companies (Bloomberg), PR departments

### #2: brand monitoring and comparison (2)



### #2: brand monitoring and comparison (3)

#### Tag cloud for Chevron Corporation



### #2: brand monitoring and comparison (4)

#### Top concepts for Chevron

#### CONCEPT RELEVANCE 99.7% CONCEPT RELEVANCE 99.2% 99.7% Petroleum 🧳 99.2% Petroleum 🥑 85.8% United States 9 Norway **Q** 51.4% ExxonMobil Energy 🧳 36.9% 48.6% United States **Q** 35.0% United States dollar 🧳 BP 🤺 33.7% 37.0% Energy 🥜 United States dollar 🥔 32.9% Royal Dutch Shell 32.2% 30.6% Royal Dutch Shell 💧 S&P 500 Index 🥔 30.3% Natural gas 🧳 28.9% China 💡 Petroleum industry 27.4% Donald Trump United Kingdom ♀ 23.8% NASDAQ 27.3% 23.3% Fossil fuel 🥔 BP 💧 22.9% ExxonMobil 26.1% Petroleum industry 21.6% Europe 💡 26.0% Stock 🥒 20.6% Barrel (unit) 24.7% Wall Street h Chief executive officer 19.8% 22.8% Fossil fuel 🧳 Petrobras h 20.1% Natural gas 🧳 Chevron Corporation 18.7% Dow Jones Industrial Average 🧳 20.0% 18.3% Brazil Q Chief executive officer 🧳 19.6% Renewable energy 🧳 Oil field 🥒 Barrel (unit) 🧳 17.1% 15.4% North Sea 9 New York City, United States 💡 17.1% Russia ♀ 14.1% 16.5% Price of oil 🥒 Business 🥑 13.1% 15.5% Climate change 🧳 12.8% Gas 15.4% Europe 💡 12.6% Canada 15.1% Barrel 🥒

#### Top concepts for Statoil

- Identification of events that can disrupt supply chains and have socio-economic influence
  - Earthquakes and other natural disasters
  - Manmade disruptions (strikes, bankruptcies, ...)
- Users: companies depending on a supply chain

#### Monitoring natural disasters

) So	urces 🗸	☐ dmoz:Science→Earth Sciences→Natural Disasters and Hazards	s 🔨 🗖 Last n	nonth 🗸
2	Catego	ories		
'6		events to only those that are on a particular topic (or any of the s). Learn more.		
	Dista	dmoz:Science $\rightarrow$ Earth Sciences $\rightarrow$ Natural Disasters and Hazards	VIEW: List	<ul> <li>SORT BY: Releva</li> </ul>
E	Pick 🗸	Category name		
T	LIEN		ADTICLES	VIDALITY
W	HEN		ARTICLES	VIRALITY





Neil ShawHead of Digital, live and trending for PlymouthLive, DevonLive and CornwallLiveGet Daily updates directly to your inboxSubscribeSee our priva... (Exeter Express and Echo)

WHEN Wed, November 28, 2018					ARTICLES 169	VIRALITY 1,680
	Flash flood	Butte County, Calif	fornia, United States 🛛   A National W		eather Service	Northern California
Debris flov	v 💡 Chico, Cal	ifornia, United States	Paradise, Nevada	, United States	Southern C	alifornia



#### Jordan Flash Flood Caused 11 Death And Tourist Evacuate

WHEN Fri, Novem	ber 09, 20	018	Ammar	n, Jordan	AR1 13	ficles 6	VIRALITY 142
<b>9</b> Jordan	Petra	Flash flood	Flood	💡 Madaba, Jordan	💡 Amman, Jordan	Civil defense	<b>Q</b> Dead Sea
💡 Ma'an, Jo	ordan 🛷	Desert 💡 Isra	ael 🧳 Canyo	on 🧳 Rock (geolog	y) 🛷 Tourism 🔌	Tourist attraction	

Just two weeks after the incident of a flash flood in Dead sea Area that killed 21 people, mostly children, a flash flood was followed in Jordan that ... (z6mag.com)



EVENT

#### Monitoring socio-political events

)	Q	Strike action	OR	Terrorism	OR	Political corruption	OR	Corruption	What are



EVENT

VIEW: List V SORT BY: Relevance V



 Acting PG Hodzi grilled for failure to prosecute high profile corruption cases - Nehanda Radio

 WHEN
 WHERE
 ARTICLES
 VIRALITY

 Thu, November 01, 2018
 Harare, Zimbabwe
 4
 0

 Image: Political corruption
 Image: Prosecutor
 Magistrate
 Acquittal
 Attorney general
 Image: Political corruption

 Image: Political corruption
 Image: Prosecutor
 Image: Political corruption
 Acting Prosecutor General Mr Kumbirai Hodzi was yesterday grilled for allegedly not doing enough to effectively prosecute high profile corruption case... (Nehanda Radio)



# EVENT MACC chief: Corruption in Malaysia getting worse | Malay Mail WHEN WHEN WHERE ARTICLES VIRALITY Tue, November 13, 2018 Putrajaya, Malaysia 10 39 Putrajaya, Malaysia Corruption Malaysian Anti-Corruption Commission Malaysia Malay styles and titles Political corruption Indonesia 1Malaysia Development Berhad Kleptocracy Civics Bribery

PETALING JAYA, Nov 13 -- Malaysian Anti-Corruption Commission (MACC) chief Datuk Seri Shukri Abdull said today the local graft menace was worsening. ... (malaymail.com)



- Deep understanding of some current event and it's context to previous events
- Users: journalists

#### China confirms 139 cases of new virus in two days

WHEN

Tue, January 21, 2020

LOCATION Wuhan, China

CATEGORIES

news→Health news→Business Health→Conditions and Diseases→Infectious Diseases Health→Conditions and Diseases→Respiratory Disorders

Chinese authorities have reported 139 new cases of a mysterious virus in two days, marking the first time that the infection has been confirmed in the country outside of Wuhan city.

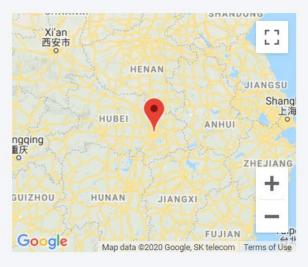
The new cases were identified in the cities of Wuhan, Beijing and Shenzhen.

The total number of confirmed cases now exceeds 200, and three have died from the respiratory illness.

The World Health Organization (WHO) said the number of cases rose because of "increased searching and testing".

The new coronavirus

Title and summary extracted from: BBC

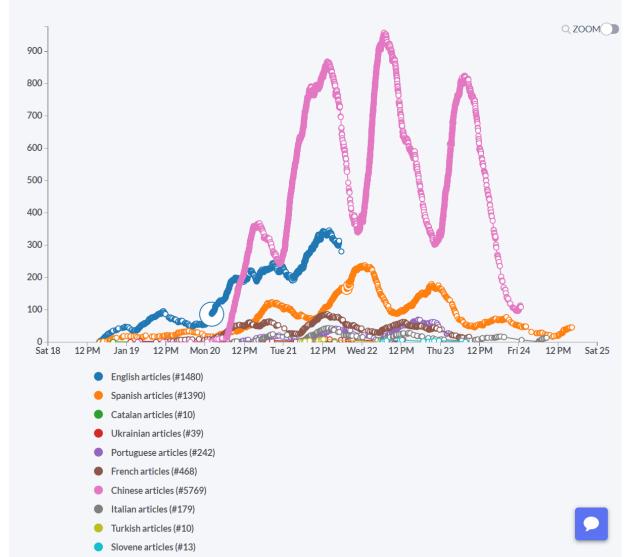


f 🎔 in 🖉

Articles		4
Below is a list of articles des	cribing the event.	
Event is reported in <b>10 lang</b>	uages. Showing articles in: English (1504 articles) 🗸 VIEW:	List 🗸 SORT BY: Shares on social media
Settings		Ð
	China confirms 139 cases of new virus in two days Chinese authorities have reported 139 new cases of a mysterious virus in two da marking the first time that the infection has been confirmed in the country outsid Wuhan city.	E 70 007 @ 04
	Coronavirus cases surge in China as virus spreads BEIJING The number of people known to have been infected with the coronav jumped Monday to over 200 from 62, with new cases reported in China's capital other Asian countries.	£ 14 100
	Canadian hospitals, airports preparing for possible arrival of SARS coronavirus from China This translation has been automatically generated and has not been verified for accuracy. Full Disclaimer Canadian hospitals and airports are putting in place enhanced infection-control	5-like THE GLOBE AND MAIL Tue, 21 Jan 2020, 04:02 € 12,148 • •
	A video of medics in Hazmat suits scanning plane passengers for China's mysterious Wuhan virus is stoking fears of a global epidem The virus has also spread to Beijing and Shenzhen, as well as Thailand, Japan, and Korea. A video of medics in Hazmat suits scanning dozens of plane passengers for the	E 40 (F7

#### Reporting timeline

Publishing times of articles describing the event. The height of the curve indicates the number of articles published in last 8 hours.



Geo location of sources Articles per country

Map shows the geographic locations of the news sources that published articles about the current event. Below the map is the time distribution of articles. Click and drag to select a specific time period in order to highlight only the corresponding subset of news sources on the map.

