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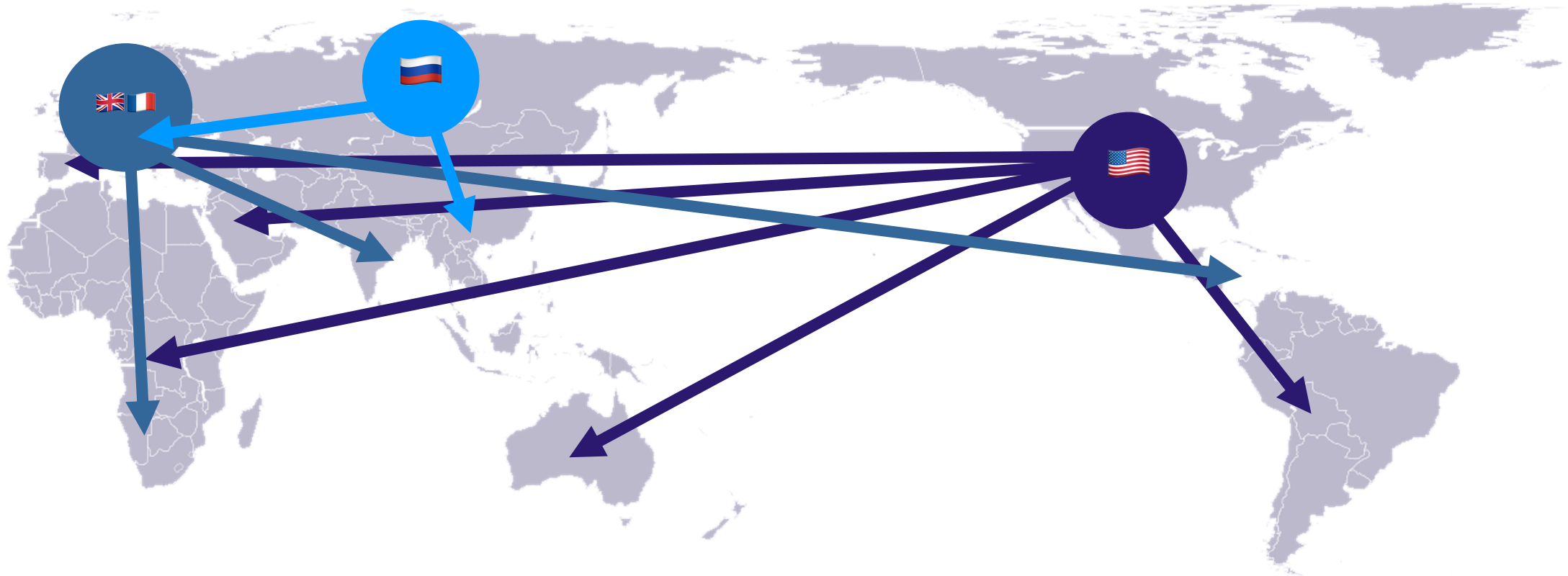
Understanding global news flows in Africa at scale

Dani Madrid-Morales | The University of Sheffield | @DMadrid_M

October 31, 2022, Sheffield Hallam University

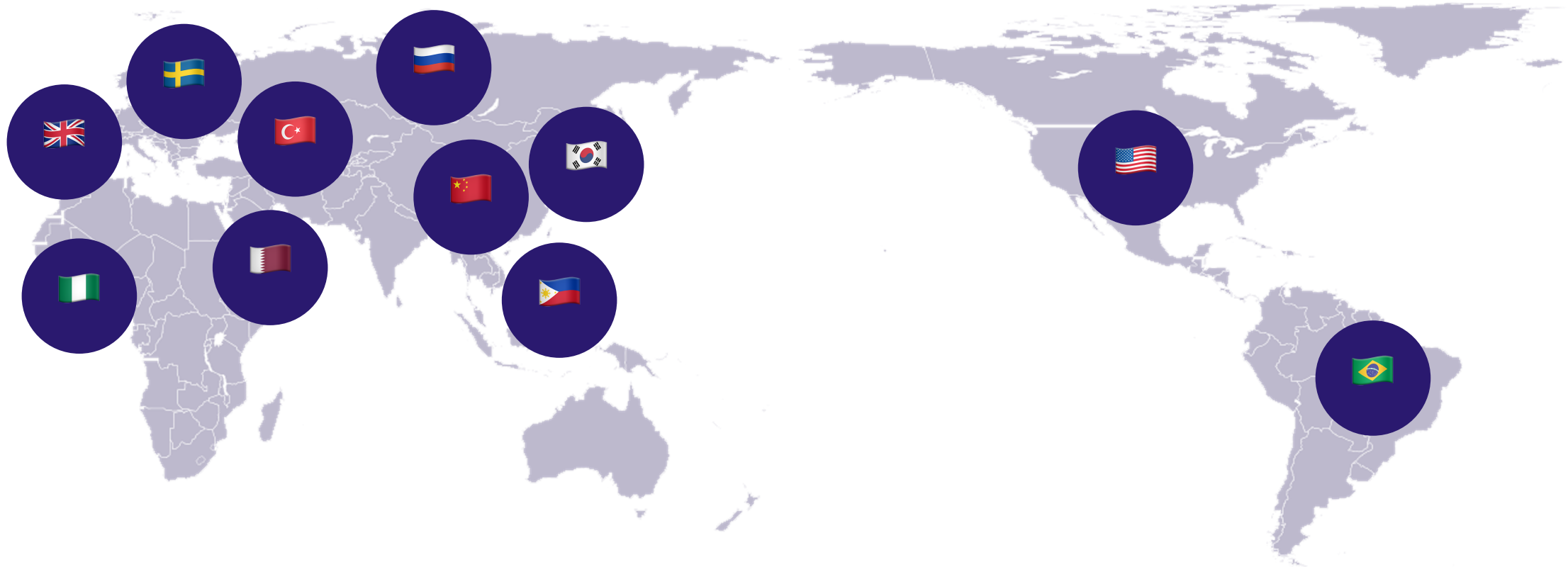


Media flows and the 'State' – 20th Century





Media flows and the 'State' – 21st Century





Media flows and contra-flows (Thussu, 2007)

DOMINANT FLOWS

GLOBAL

Hollywood
MTV
CNN
Discovery
BBC
Google
CNBC
Wall Street Journal
Japanese animation

CONTRA-FLOWS

TRANSNATIONAL

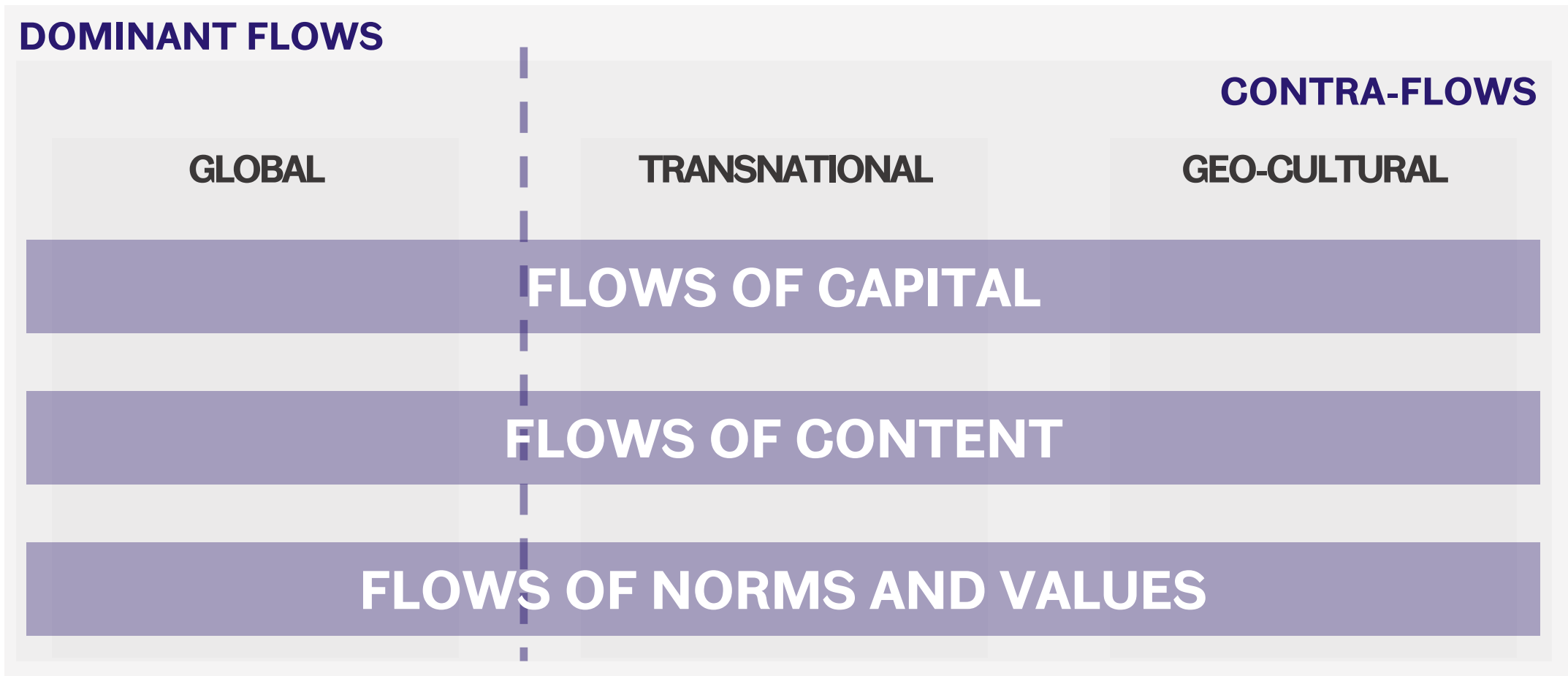
'Bollywood'
Al-Jazeera
Telenovelas
TV5
Telesur
CCTV-9
RTTV
M-Net
Korean films

GEO-CULTURAL

Phoenix
Zee TV
TRT-International
Al-Hayat
Baidu.com
MBC
NHK World TV
Islamonline.net
Roj TV



Layered media flows and contra-flows





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How do we measure success?



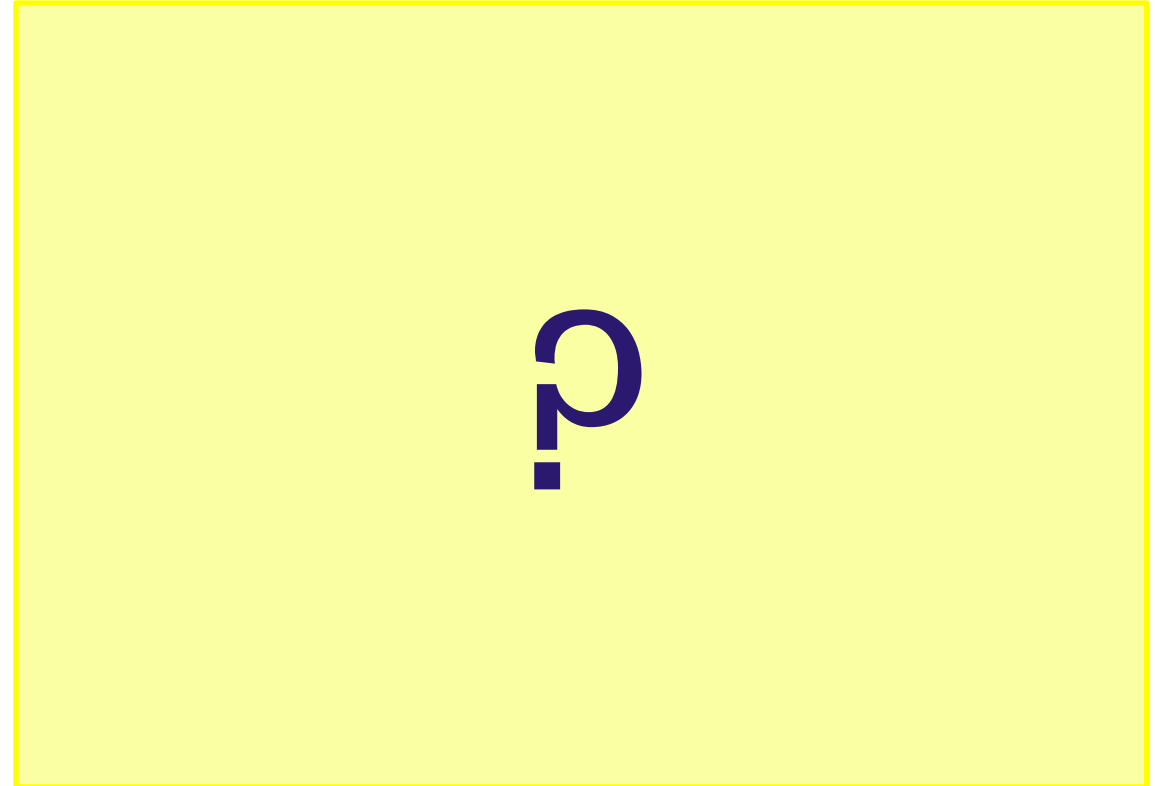
Successful **State-sponsored** news contraflow(s)?





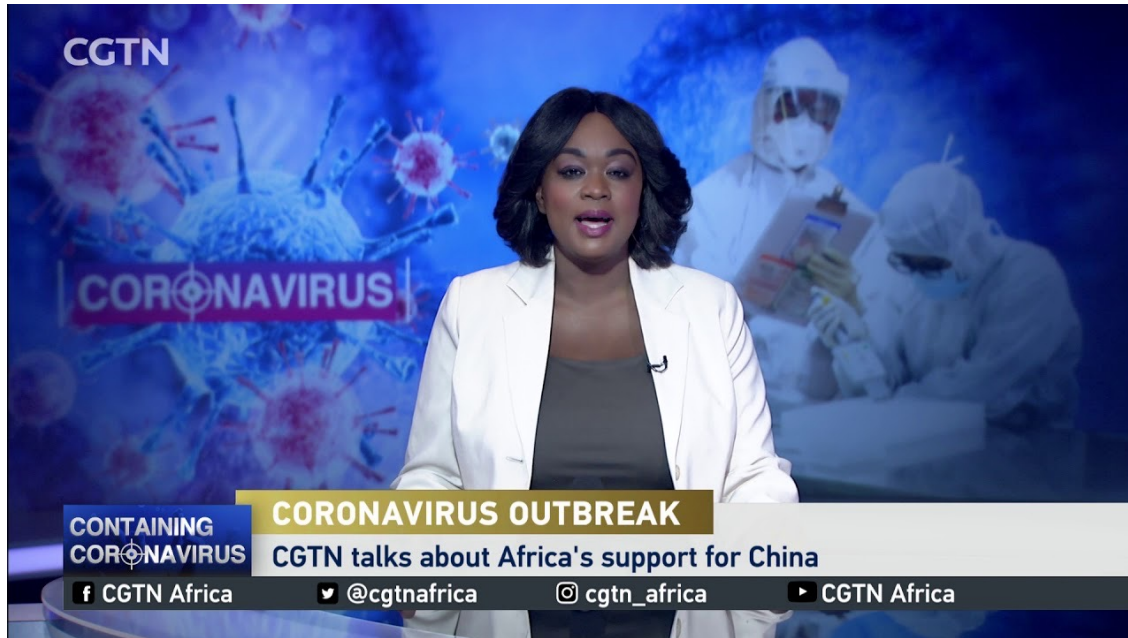
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Successful **State-backed** non-news contraflow(s)?





Are Chinese media successful contraflow(s)?





Background

Source: <https://www.chinamfile.com/china-africa-project/chinas-media-challenges-western-narratives-of-africa>



Increased presence of Chinese media in Africa

← Tweet

Chinese Ambassador to Zimbabwe Retweeted



China Xinhua News

@XHNews

China state-affiliated media

China is providing vaccine aid to 53 developing countries: FM xhne.ws/HUSy6



China communicated actively about COVID-19 across Africa

4:00 AM · Feb 8, 2021 · China Xinhua News

73 Retweets · 15 Quote Tweets · 285 Likes



Methodological toolbox for global media scholars



- Audience surveys
- Focus groups
- Observation
- TV programming analysis



- Text reuse
- Topic modeling
- Computer vision
- Social media analysis



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Quantifying News Flows



Limitations of existing news archives

Nexis Uni® Menu

EN - English (US) History Help Sign In Register

Nexis Uni

Search for sources, companies, or citations

Advanced Search | Tips | Get a LibGuide Assistance

Guided Search

What are you interested in?

News | A Publication | Cases | Law Reviews

Company Info | Country Info

Search in all News for

Enter keywords or subjects

Choose date range

All available dates

Search

COVID-19 Quick Searches

Discover topics

News API

Get started Documentation Pricing Login Get API key

NewsAPI

Search worldwide news with code

Get breaking news headlines, and search for articles from news sources and blogs across the web with our JSON API

Get API Key

Sorted by recent first

Top business headlines in the US right now

from=2021-01-15&sortBy=publ

GET http://newsapi.org/v2/top-headlines?country=us&category=business&apiKey=API_KEY

GET http://newsapi.org/v2/everything?country=us&category=business&apiKey=API_KEY

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  "totalResults": 70,
  "articles": [

```

```
{
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  "totalResults": 921,
  "articles": [

```



Limitations of existing archives/corpora

GDELT



NOW Corpus





Algorithmic biases

Google

Tigray

Q All News Maps Images Videos More Settings Tools


About 1,900,000 results (0.52 seconds)

Yahoo News

Ethiopia's Tigray crisis: 'I lost my hand when a soldier tried to rape me'

A teenager caught up in Ethiopia's Tigray conflict tells of her and her grandfather's near-death encounter.

23 hours ago



Google

site:addisstandard.com Tigray

Q All News Maps Images Videos More Settings Tools

When you refine a search with a "site:" operator, Google shows results from all the indexed pages from the website you specified.


About 1,240 results (0.50 seconds)

addisstandard.com

News: Ethiopia "deeply concerned" by EU statement on Tigray, stays silent on accusations of Eritrea's role in the...

News: Ethiopia "deeply concerned" by EU statement on Tigray, stays silent on accusations of Eritrea's role in the armed conflict. addisstandard / ...

6 days ago




addisstandard.com

News Alert: EU joins the US in calling withdrawal of Eritrean troops from Ethiopia, says they are "fueling the..."

EU's latest call on the need to withdraw Eritrean forces from Tigray shows that there is a transatlantic consensus between European Union and ...

1 week ago





Africa Digital News Corpus

- In 2019 I started a pilot project to monitor news content published on digital news websites in Africa
- This project collects data in real time to create a live corpus of news.

<https://doi.org/10.18738/T8/UKJZ3E>

African Digital News Dataverse Collection

(University of Houston)

Texas Data Repository > University of Houston Dataverse Repository > African Digital News Dataverse Collection >

Corpus of African Digital News from 600 Websites Formatted for Text Mining / Computational Text Analysis

Version 3.0

Madrid-Morales, D.; Lindner, P.; Periyasamy, M., 2021, "Corpus of African Digital News from 600 Websites Formatted for Text Mining / Computational Text Analysis", <https://doi.org/10.18738/T8/UKJZ3E>, Texas Data Repository, V3

Cite Dataset ▾

Learn about Data Citation Standards.

Access Dataset ▾

Contact Owner Share

Dataset Metrics ⓘ

916 Views ⓘ

266 Downloads ⓘ

0 Citations ⓘ

Description ⓘ

This dataset includes a corpus 200,000+ news articles published by 600 African news organizations between December 4, 2020 and January 3, 2021. The texts have been pre-processed (punctuation and English stopwords have been removed, features have been lowercased, lemmatized and POS-tagged) and stored in commonly used formats for text mining/computational text analysis. Users are advised to read the documentation for an explanation of the data collection process.

This dataset includes the following items:

- 31 tables (one per day) of lowercased and lemmatized tokens with the following additional

variables: POS tags, document id, sentence id, token id and

[Read full Description \(+\)](#)

Subject ⓘ

Arts and Humanities; Social Sciences

Keyword ⓘ

news, Africa, digital news, text mining, computational

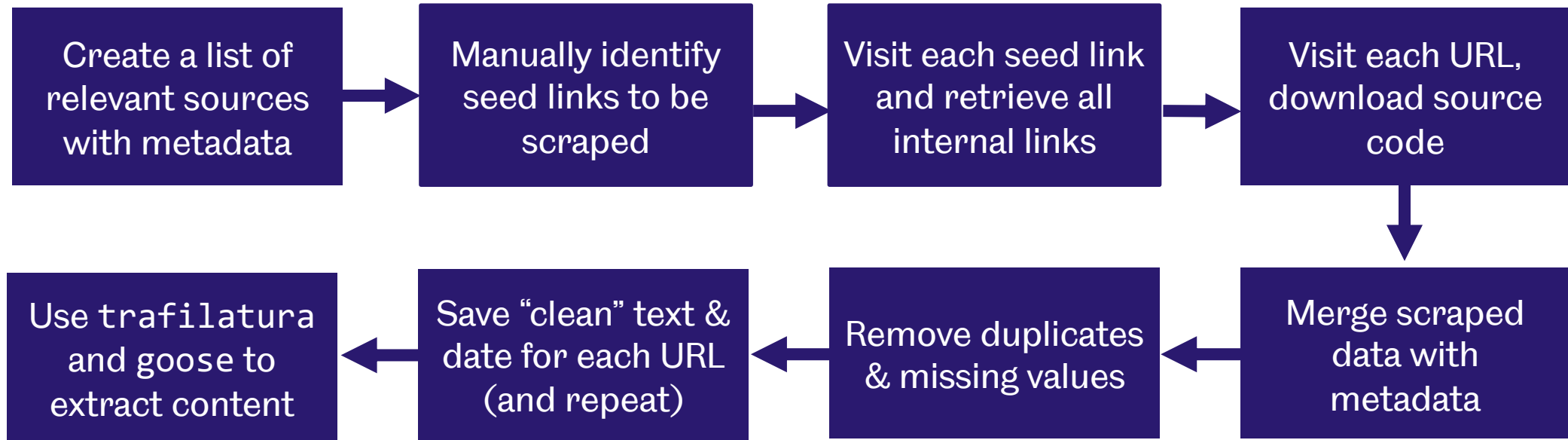
License/Data Use Agreement

CC0 1.0

Open Access
Open Source



Africa Digital News Corpus





Step 1 – Seed Links

Create a list of
pages you want
to scrape

A	B	C	D	E	F	G
country_name	country_is	medium_name	alexa_scc	source	url	news_site
Burkina Faso	BF	http://www.aib.media	NA	xyzlinks	http://www.aib.media	TRUE
Burkina Faso	BF	http://www.aouaga.com	NA	xyzlinks	http://www.aouaga.com	TRUE
Burkina Faso	BF	http://www.aujourd8.net	NA	xyzlinks	http://www.aujourd8.net	TRUE
Burkina Faso	BF	http://www.burkina24.com	NA	xyzlinks	http://www.burkina24.com	TRUE
Burkina Faso	BF	http://www.burkinainfo.com	NA	xyzlinks	http://www.burkinainfo.com	TRUE
Burkina Faso	BF	http://www.faso-actu.net	NA	xyzlinks	http://www.faso-actu.net	TRUE
Burkina Faso	BF	http://www.fasopresse.net	NA	xyzlinks	http://www.fasopresse.net	TRUE
Burkina Faso	BF	http://www.fasozine.com	NA	xyzlinks	http://www.fasozine.com	TRUE
Burkina Faso	BF	http://www.leconomistedufaso.bf	NA	xyzlinks	http://www.leconomistedufaso.bf	TRUE
Burkina Faso	BF	http://www.lefaso.net	NA	xyzlinks	http://www.lefaso.net	TRUE
Burkina Faso	BF	http://www.lepays.bf	NA	xyzlinks	http://www.lepays.bf	TRUE
Burkina Faso	BF	http://www.lepays.bf	NA	xyzlinks	http://www.lepays.bf	TRUE
Burkina Faso	BF	http://www.lesaffairesbf.com	NA	xyzlinks	http://www.lesaffairesbf.com	TRUE
Burkina Faso	BF	http://www.lexpressdufaso-bf.com	NA	xyzlinks	http://www.lexpressdufaso-bf.com	TRUE
Burkina Faso	BF	http://www.observateur.bf	NA	xyzlinks	http://www.observateur.bf	TRUE
Burkina Faso	BF	http://www.observateur.bf	NA	xyzlinks	http://www.observateur.bf	TRUE
Burkina Faso	BF	http://www.monpulsar.com	NA	xyzlinks	http://www.monpulsar.com	TRUE
Burkina Faso	BF	http://www.mutationsbf.info	NA	xyzlinks	http://www.mutationsbf.info	TRUE
Burkina Faso	BF	http://www.omegabf.info	NA	xyzlinks	http://www.omegabf.info	TRUE
Burkina Faso	BF	http://www.ouagafm.bf	NA	xyzlinks	http://www.ouagafm.bf	TRUE
Burkina Faso	BF	http://www.radiob24.com	NA	xyzlinks	http://www.radiob24.com	TRUE
Burkina Faso	BF	http://www.rtb.bf	NA	xyzlinks	http://www.rtb.bf	TRUE
Burkina Faso	BF	http://www.savanefm.bf	NA	xyzlinks	http://www.savanefm.bf	TRUE
Burkina Faso	BF	http://www.sidwaya.info	NA	xyzlinks	http://www.sidwaya.info	TRUE
Burkina Faso	BF	http://www.sidwaya.info	NA	xyzlinks	http://www.sidwaya.info	TRUE
Burundi	BI	http://www.abpinfos.com	NA	xyzlinks	http://www.abpinfos.com	TRUE
Burundi	BI	http://www.arib.info	NA	xyzlinks	http://www.arib.info	TRUE
Burundi	BI	http://www.burundi24.wordpress.com	NA	xyzlinks	http://www.burundi24.wordpress.com	TRUE
Burundi	BI	http://www.burundi-agnews.org	NA	xyzlinks	http://www.burundi-agnews.org	TRUE
Burundi	BI	http://www.burundi-eco.com	NA	xyzlinks	http://www.burundi-eco.com	TRUE
Burundi	BI	http://www.burundi-forum.org	NA	xyzlinks	http://www.burundi-forum.org	TRUE
Burundi	BI	http://www.burundi-information.net	NA	xyzlinks	http://www.burundi-information.net	TRUE
Burundi	BI	http://www.fr.itaraburundi.com	NA	xyzlinks	http://www.fr.itaraburundi.com	TRUE
Burundi	BI	http://www.isanganiro.org	NA	xyzlinks	http://www.isanganiro.org	TRUE
Burundi	BI	http://www.itaraburundi.com	NA	xyzlinks	http://www.itaraburundi.com	TRUE
Burundi	BI	http://www.iwacu-burundi.org	NA	xyzlinks	http://www.iwacu-burundi.org	TRUE

Step 2 – Retrieve links

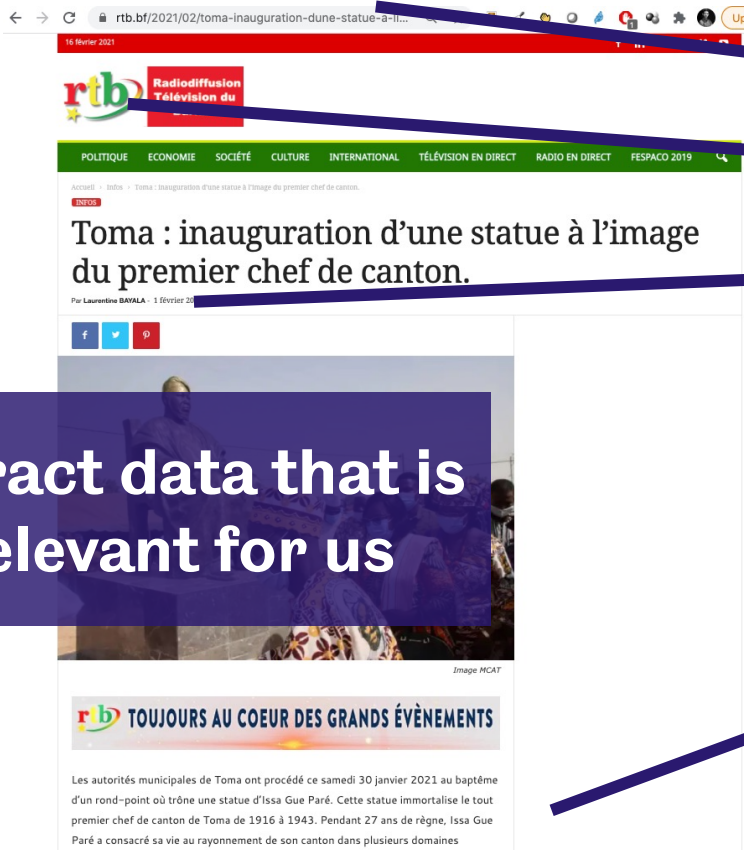


Visit each website and extract news links

Link	URL
Toma : inauguration d'une statue à l'image du premier chef de...	https://www.rtb.bf/2021/02/toma-inauguration-dune-statue-a-limage-du-premier-chef-de-canton/
Ouahigouya : des producteurs utilisent le gaz butane pour alimenter les...	https://www.rtb.bf/2021/02/ouahigouya-des-producteurs-utilisent-le-gaz-butane-pour-alimenter-les-motopompes/
Compte rendu du Conseil des Ministres du 29 janvier 2021	https://www.rtb.bf/2021/01/compte-rendu-du-conseil-des-ministres-du-29-janvier-2021/
Compte-rendu du conseil des ministres du vendredi 29 janvier 2021	https://www.rtb.bf/2021/01/compte-rendu-du-conseil-des-ministres-du-vendredi-29-janvier-2021/



Step 3 – Extract relevant data



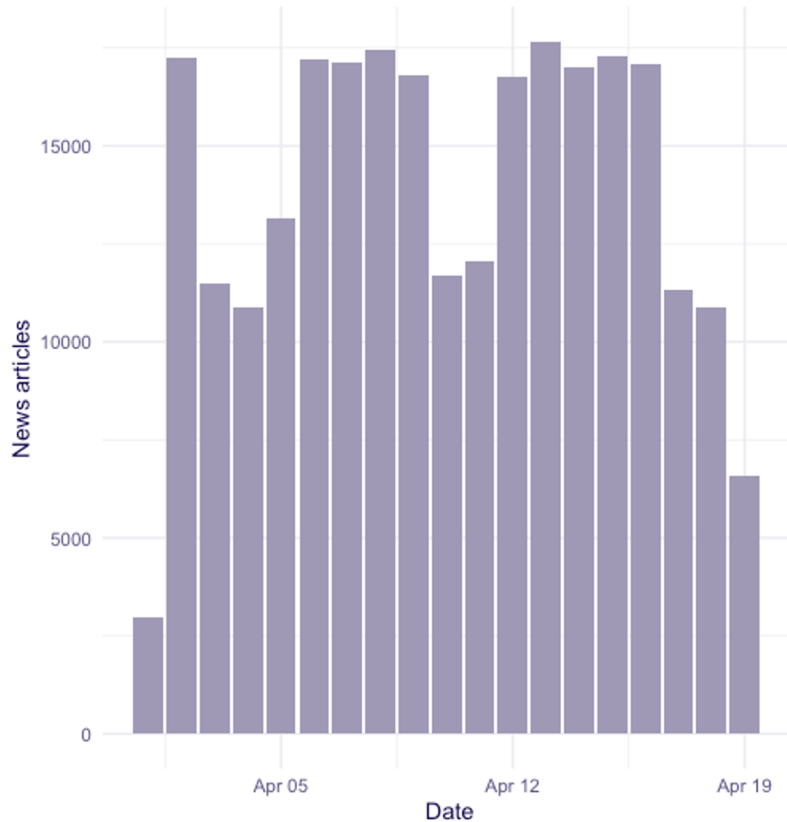
Extract data that is relevant for us

publish_date	source	country_iso	full_text	web_url
2020-04-07	abidjan.net	CI	Société Hamed Bakayoko déclaré positif au coronaviru...	https://news.abidjan.net/h/671218.html
2020-04-27	abidjan.net	CI	Société COVID 19: Un don en vivres et non vivres offe...	https://news.abidjan.net/h/672003.html
2020-04-20	abidjan.net	CI	Économie Covid-19: le directeur général de IOMS peu...	https://news.abidjan.net/h/671694.html
2020-04-22	abidjan.net	CI	Économie Hausse du coût de la viande : les acteurs in...	https://news.abidjan.net/h/671803.html
2020-04-29	abidjan.net	CI	Société Jour de tourisme et des loisirs : les resulta...	https://news.abidjan.net/h/672090.html
2020-04-29	abidjan.net	CI	Économie Covid-19: Les mesures urgentes p...	https://news.abidjan.net/h/670625.html
2020-03-23	abidjan.net	CI	Société Journée mondiale de l'eau 2020 toujours d'ac...	https://news.abidjan.net/h/670673.html
2020-03-27	abidjan.net	CI	International New York, nouvel épice de la pandé...	https://news.abidjan.net/h/670803.html
2020-05-06	abidjan.net	CI	Société Ramadan : Hamed Bakayoko offre des vivres a...	https://news.abidjan.net/h/672361.html
2020-05-12	abidjan.net	CI	Société Coronavirus : Le Premier Ministre met la minis...	https://news.abidjan.net/h/672617.html
2020-05-14	abidjan.net	CI	Société Reprise des travaux de la Nationale A3 à Niak...	https://news.abidjan.net/h/672735.html
2020-05-27	abidjan.net	CI	Politique Présidentielle 2020: la révision de la liste éle...	https://news.abidjan.net/h/673528.html
2020-02-27	abidjan.net	CI	Économie Covid- 19 Des producteurs de café-cacao r...	https://news.abidjan.net/h/669714.html
2020-04-03	abidjan.net	CI	Société Le préfet de Korhogo appelle la population à s...	https://news.abidjan.net/h/671111.html
2020-04-05	abidjan.net	CI	Région COVID-19 : Agboville lance la phase répressiv...	https://news.abidjan.net/h/671331.html
2020-04-10	abidjan.net	CI	Société Pâques 2020 : L'Église méthodiste plaide pour ...	https://news.abidjan.net/h/671409.html
2020-04-15	abidjan.net	CI	Art et Culture Covid 19: Des artistes et journalistes se...	https://news.abidjan.net/h/671480.html
2020-04-10	abidjan.net	CI	Société Coronavirus : Le centre de dépistage de Yopo...	https://news.abidjan.net/h/671348.html
2020-04-04	abidjan.net	CI	Société Covid-19 : Sensibilisation à outrance à lintéri...	https://news.abidjan.net/h/671076.html
2020-04-09	abidjan.net	CI	Société Covid-19: Voici les techniques utilisées par d...	https://news.abidjan.net/h/671283.html
2020-04-03	abidjan.net	CI	Société Treichville/ Lutte contre le Coronavirus : le co...	https://news.abidjan.net/h/671067.html
2020-04-15	abidjan.net	CI	Société Covid-19: l'état de Côte d'Ivoire proroge le dél...	https://news.abidjan.net/h/671500.html
2020-04-19	abidjan.net	CI	Société Bruno Koné fait des dons aux ressortissants d...	https://news.abidjan.net/h/671672.html
2020-03-06	abidjan.net	CI	Société Social: Report du gala de la Fondation Childre...	https://news.abidjan.net/h/670091.html
2020-03-18	abidjan.net	CI	Société Coronavirus: Latelier de formation des format...	https://news.abidjan.net/h/670503.html
2020-03-19	abidjan.net	CI	Politique Covid-19: La plateforme pro-Gbagbo, EDS, l...	https://news.abidjan.net/h/670561.html
2020-03-17	abidjan.net	CI	Société Crise du Coronavirus : Les Abidjanais vident l...	https://news.abidjan.net/h/670484.html
2020-03-27	abidjan.net	CI	Économie Impacts du Covid-19 dans l'UEMOA : Avis r...	https://news.abidjan.net/h/670824.html

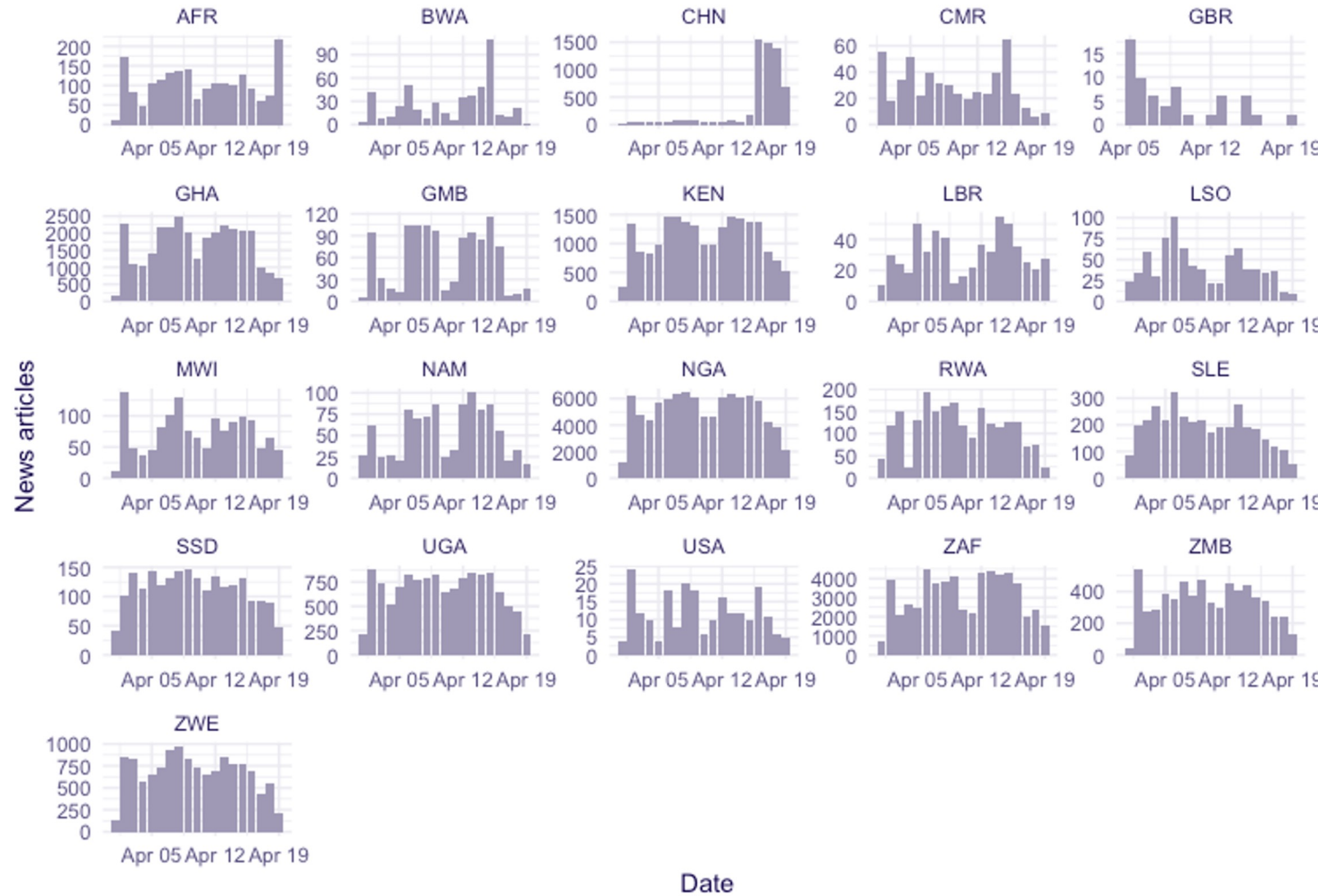


Data volume

Articles scraped per day English corpus



Articles scraped per day by country





Applications

- This same process can be used to collect content from government websites, discussion fora, citizen journalism platforms...
 - We can answer **descriptive questions** about content
 - We can answer questions about **linguistic patterns**
 - We can compare sources **across geographic spaces**
 - We can trace **longitudinal patterns**
 - We can **triangulate text data** with other data

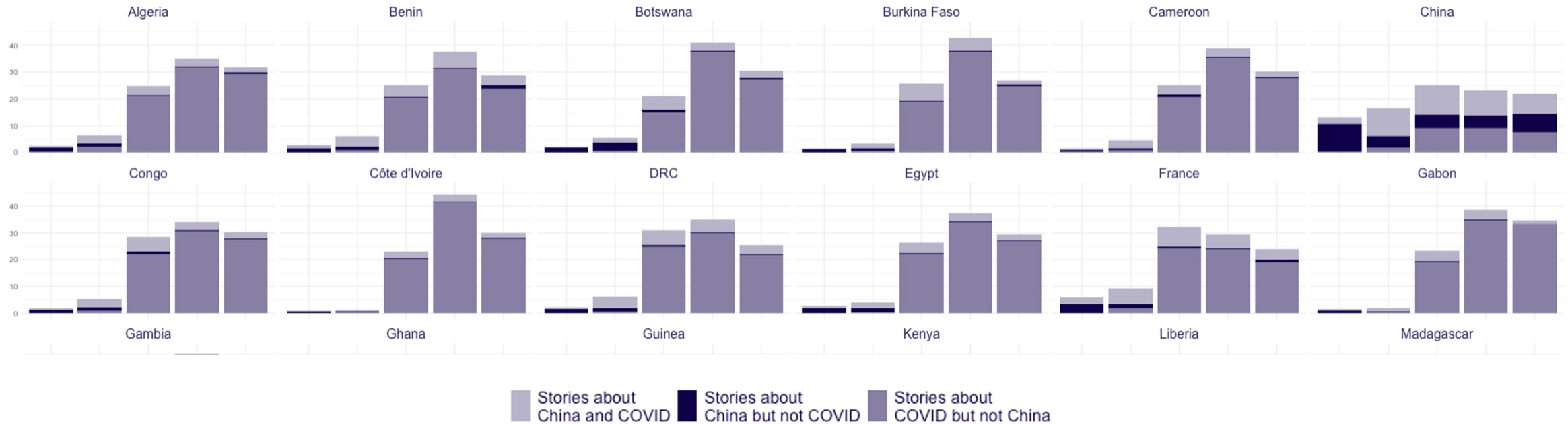


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China >> Africa Media Flows



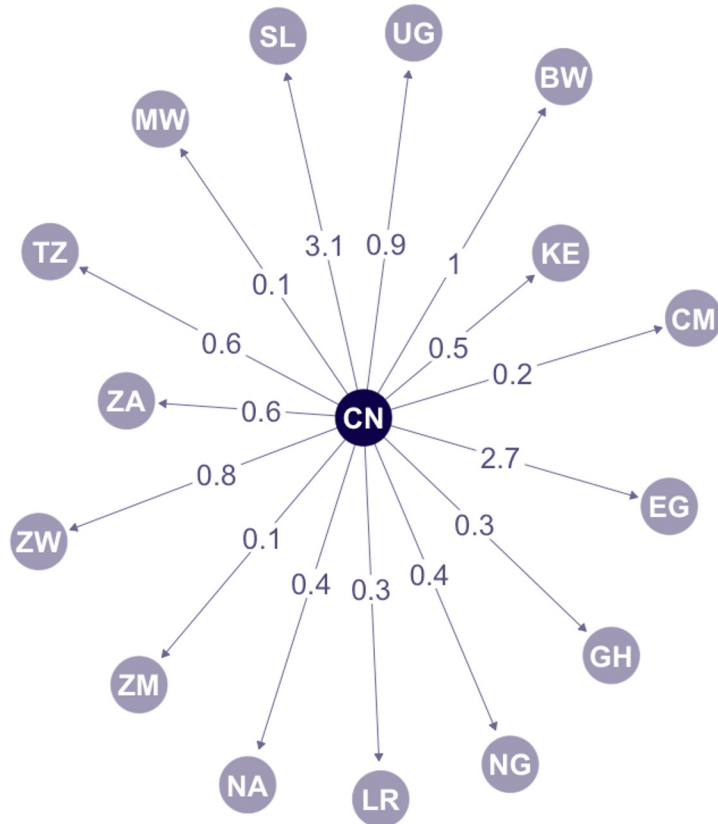
Global News Flows



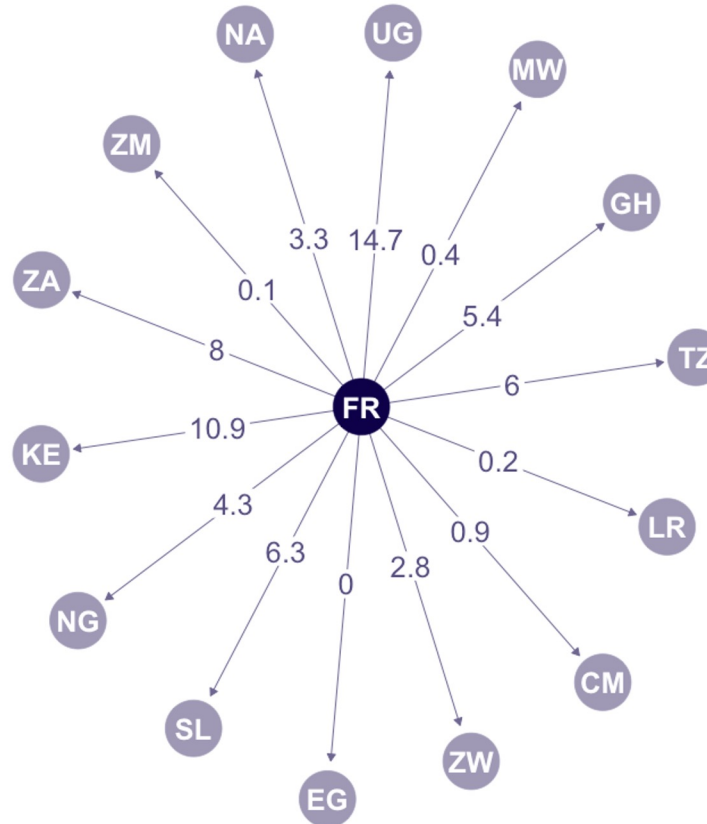


Global News Flows

a. China



b. France

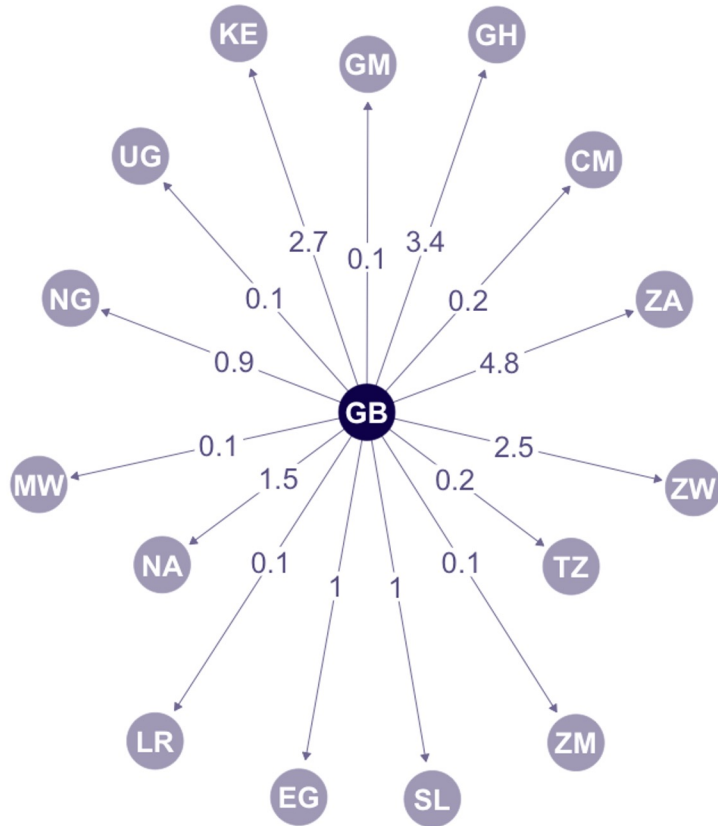


Text reuse in African English-language media coverage of COVID-19

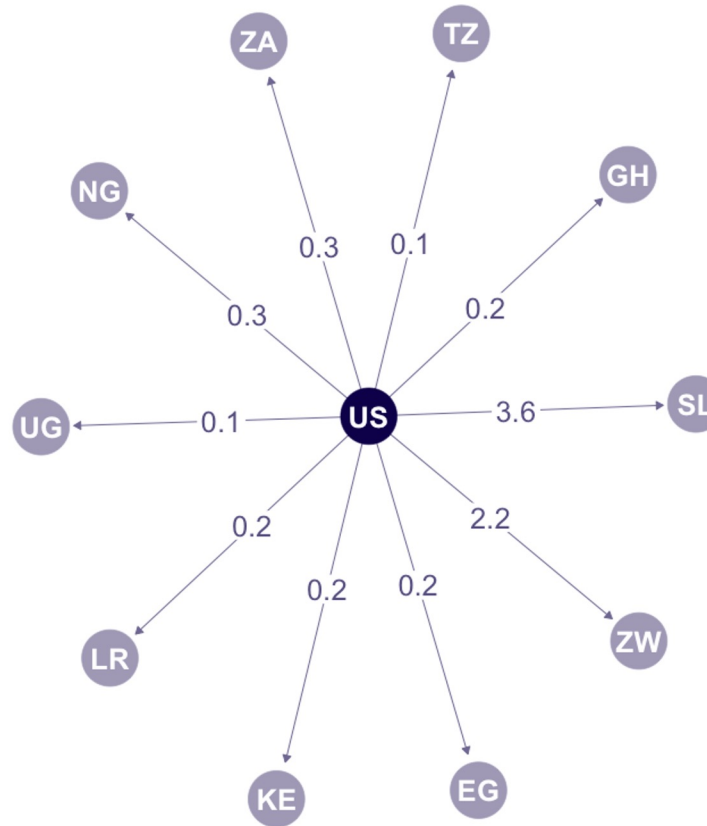


Global News Flows

c. United Kingdom



d. United States

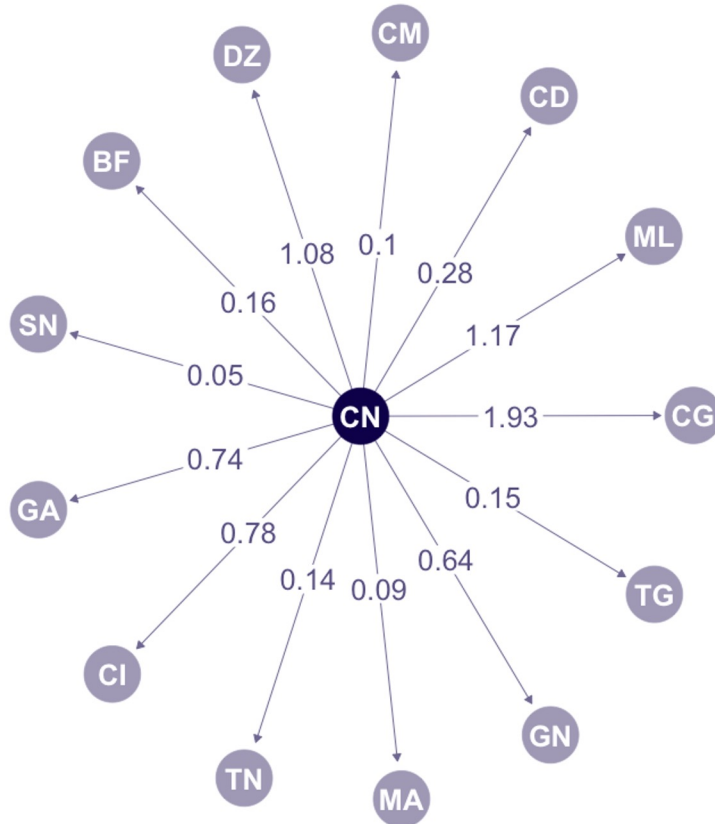


Text reuse in African English-language media coverage of COVID-19

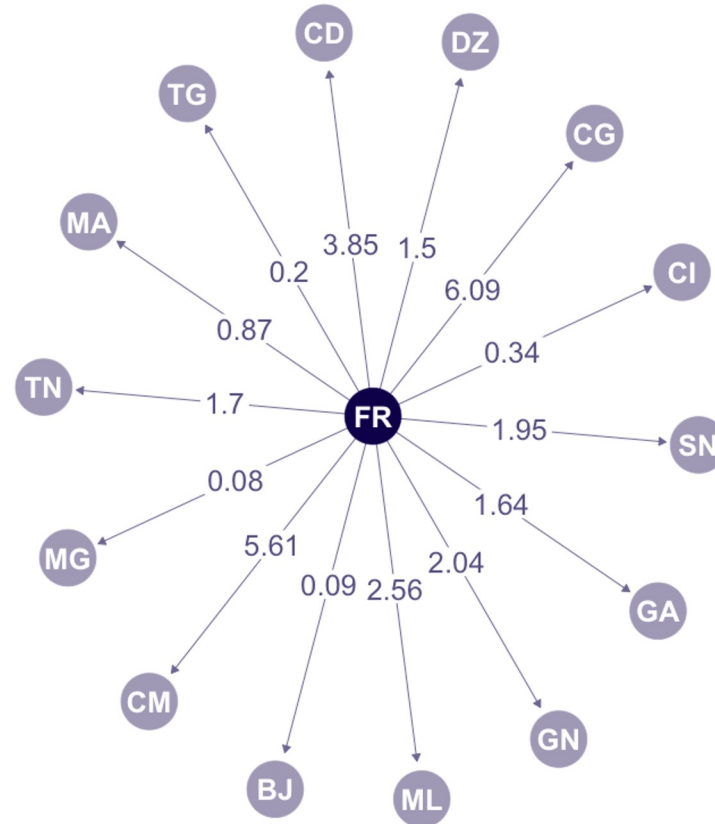


Global News Flows

a. China



b. France

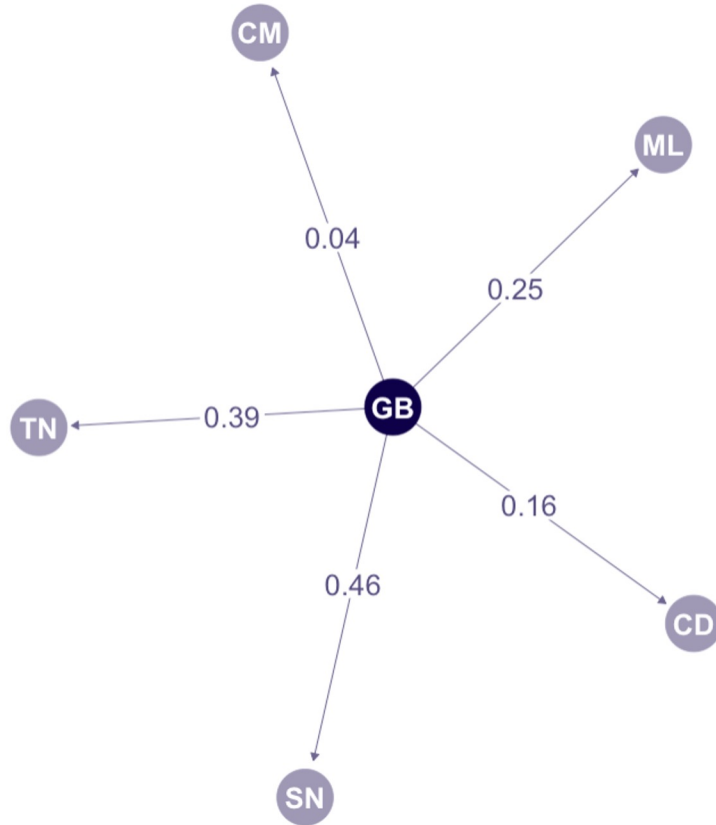


Text reuse in African French-language media coverage of COVID-19

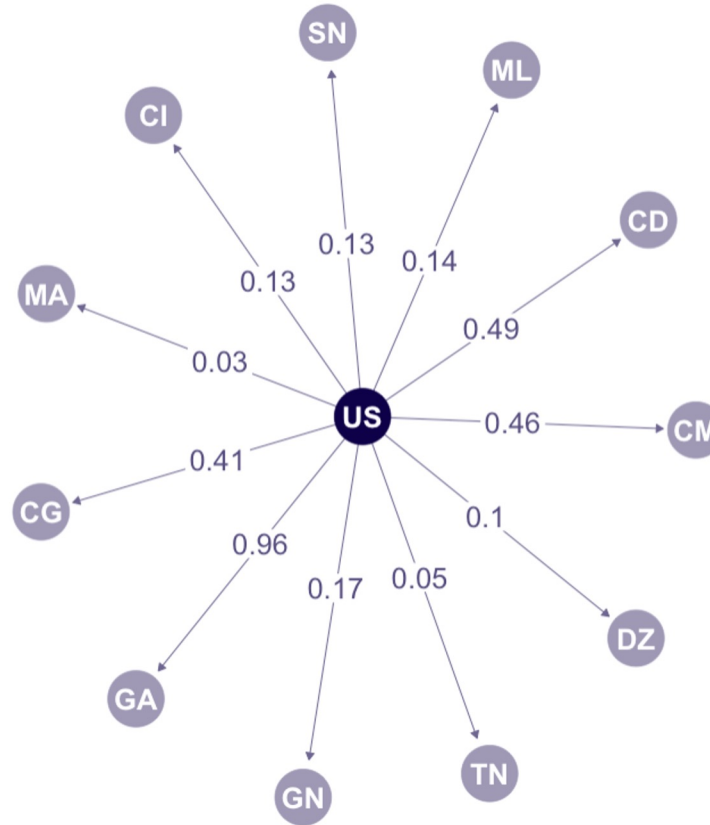


Global News Flows

c. United Kingdom



d. United States

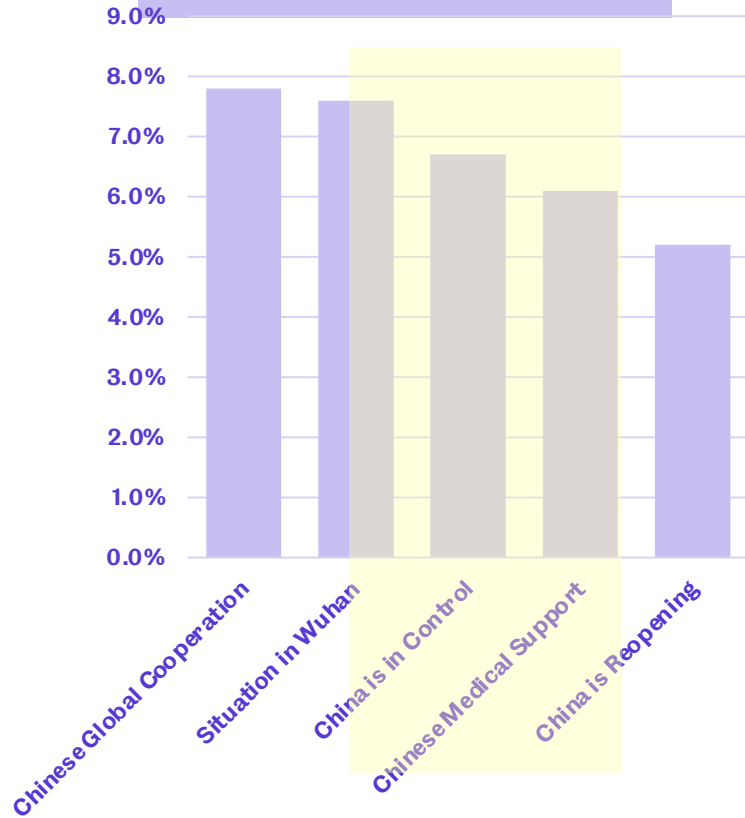


Text reuse in African French-language media coverage of COVID-19

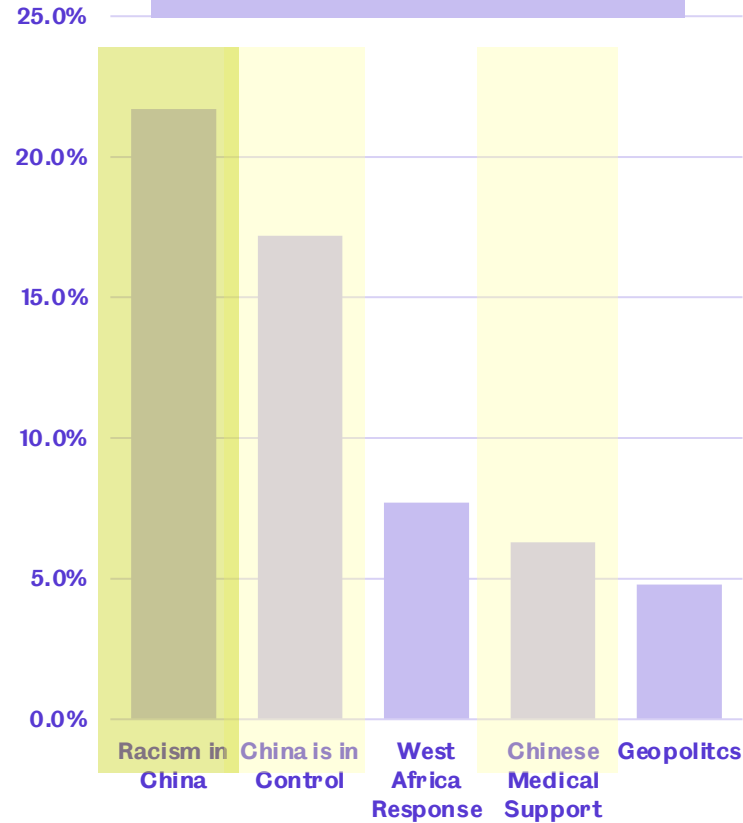


Chinese narratives on COVID-19

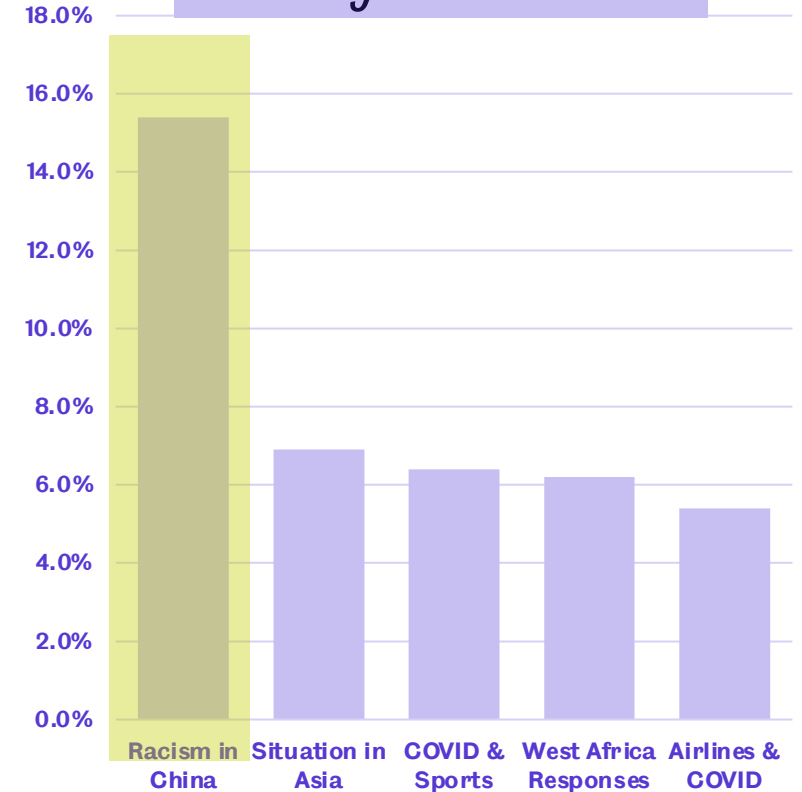
Chinese media



Gambian media



Kenyan Media





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Russia-Ukraine-China nexus



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Chinese narratives

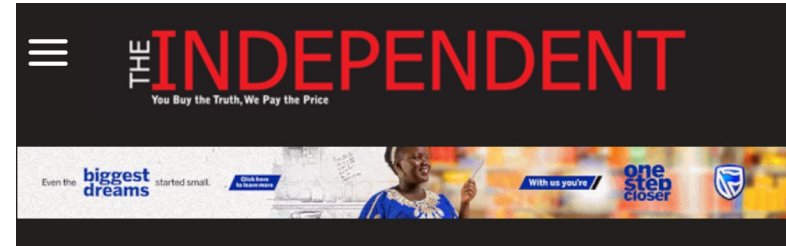


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Vaccine-preventable diseases outbreaks on the rise in Africa: W
Home / WORLD / Russia begins second phase of special military operation in Ukraine: Lavrov

Russia begins second phase of special military operation in Ukraine: Lavrov

The Independent April 19, 2022 WORLD Leave a comment



Russian Foreign Minister Sergei Lavrov. File Photo

Moscow, Russia | Xinhua | The second phase of Russia's special military operation in Ukraine has begun, Russian Foreign Minister Sergei Lavrov said Tuesday.

The operation in eastern Ukraine is aimed at "completely liberating" the populations of Donetsk and Lugansk, Lavrov said during an interview with India Today.

"This operation will continue, the next phase of this operation has now begun. There will now be an important moment during this special operation," he added.



Russian narratives



Home > Newsroom > Top Stories > Kyiv tried to urgently conceal traces of military biological program funded by U.S. Defense Dept - Russian Defense Ministry

6 Mar 2022 18:59

Kyiv tried to urgently conceal traces of military biological program funded by U.S. Defense Dept - Russian Defense Ministry



MOSCOW. March 6 (Interfax) - Facts of the urgent concealment by the regime in Kyiv of the traces of a military biological program funded by the United States Department of Defense and implemented in Ukraine were exposed during the special military operation, Russian Defense Ministry spokesperson Igor Konashenkov said at a briefing on Sunday.

"We have obtained documents from employees of Ukrainian bio laboratories that the especially dangerous pathogens of plague, anthrax, tularemia, cholera and other deadly diseases were urgently destroyed on February 24," Konashenkov said.

"Russian expert of the Nuclear, Biological and Chemical Protection Troops are now analyzing the documents," he said.



Kiev a détruit des échantillons mortels provenant de laboratoires de guerre biologique financés par les Etats-Unis (MAE russe)



French.xinhuanet.com | Publié le 2022-03-09 à 13:52

MOSCOU, 8 mars (Xinhua) -- Les autorités de Kiev ont détruit des agents pathogènes dangereux de maladies mortelles stockés dans des laboratoires en Ukraine financés par les Etats-Unis, a confirmé mardi le ministère russe des Affaires étrangères.

Le ministère a reçu des documents d'employés de laboratoires biologiques ukrainiens confirmant la destruction en urgence d'agents pathogènes dangereux tels que la peste, l'anthrax, la tularémie, le choléra et d'autres maladies mortelles le 24 février, selon une déclaration de la porte-parole du ministère, Maria Zakharova.

Elle a ajouté que ces laboratoires étaient financés par le Pentagone et faisaient partie d'un programme d'armes biologiques.

Selon le ministère, ces agents pathogènes ont été immédiatement détruits pour dissimuler les preuves indiquant que les Etats-Unis et l'Ukraine ont violé l'article I de la Convention sur l'interdiction des armes biologiques.

Mardi également, le ministère chinois des Affaires étrangères a appelé les Etats-Unis à publier les détails de leurs laboratoires biologiques en Ukraine et a exhorté les parties concernées à assurer leur sécurité. Fin



xinhuanews

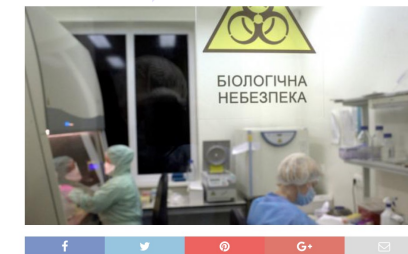
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« Kiev a détruit des échantillons mortels provenant de laboratoires de guerre biologique financés par les Etats-Unis » (Min Aff russe)

9 mars 2022 | administrateur | Environnement | 0



« Les autorités de Kiev ont détruit des agents pathogènes dangereux de maladies mortelles stockés dans des laboratoires en Ukraine financés par les Etats-Unis », a affirmé mardi 8 mars 2022 le ministère russe des Affaires étrangères.

Le ministère a reçu des documents d'employés de laboratoires biologiques ukrainiens confirmant la destruction en urgence d'agents pathogènes dangereux tels que la peste, l'anthrax, la tularémie, le choléra et d'autres maladies mortelles le 24 février, selon une déclaration de la porte-parole du ministère, Maria Zakharova.



Final Ideas

- None of these approaches is superior to other research methodologies. These are useful to answer certain types of questions, but not others.
 - Computational methods are great for **mechanic and repetitive tasks**
 - Computational methods can help **find patterns and classify documents**
 - Computational methods cannot **interpret meanings** of texts
 - Computational methods are **no substitute** of any other research method
- Working with digital news content from African sources can be difficult with existing tools.
 - There are barely no APIs.
 - There are limited efforts to store this kind of data.



Limitations

- This approach would (in principle) exclude data that is behind **paywalls** (think of Daily Maverick in SA or Nation Media in KE); it is internet data heavy.
- These approaches are heavy on the **amount of bandwidth** that is required (cloud computing as alternative).
- Downtime of websites and other technical problems might limit how much data we can collect, so it is important to acknowledge **biases in our dataset**.



More information

- (Some of the) data and the code for these studies is available in this repository:
 - https://github.com/danimadrid/africa_china_covid19
- There's more details on the process that I describe here in here:
 - <https://doi.org/10.1080/23743670.2020.1820885>



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Q&A