Unboxing the VODAN Africa

FDP at Data Science Nigeria

Ezekiel Adebayo Ogundepo

and

Dr Sakinat Folorunso

September 8, 2020





Agenda

Agenda



- Data Science Nigeria FDP
- FDP catalogues
- Dataset for the catalogues
- CEDAR metadata





Data Science Nigeria FAIR Data Point

Welcome to Data Science Nigeria FAIR Data Point (FDP). This FDP contains the metadata of datasets and other artefacts related to the COVID-19 pandemic and other health data in Nigeria. Please visit www.datasciencenigeria.org to know more about Data Science Nigeria.

Catalogs

COVID-19 data in Nigeria

This catalog contains various data on COVID-19 in Nigeria such as daily cases, cases by state, cases by geographical zones, COVID-19 laboratories, and other COVID-19 related infode...

Issued 01-09-2020 Modified 04-09-2020

Lockdown tweets of Nigerians

This contains a collection of tweets from the first 2 weeks of the enforcement of lockdown in 4 different states in Ogun State as as non clinical measures for the control of the sp...

Issued 02-09-2020 Modified 04-09-2020

Metadata Issued 04-08-2020	Metadata Modified 04-09-2020
Version	
1.0	
Language	
<u>en</u>	
License	
cc-by-nc-nd3.0	
Start date	
04-08-2020	
Institution country	
<u>Q1033</u>	

Check it out at https://fdp.artificialintelligence.ng

Catalogue 1: COVID-19 data in Nigeria



This catalog contains various data on COVID-19 in Nigeria such as daily cases, cases by state, cases by geographical zones, COVID-19 laboratories, and other COVID-19 related infodemic and misinformation in Nigeria

Dataset 1: COVID-19 data in Nigeria



This Excel workbook has 6 worksheets and they are named as follows:

- 1. Daily cases: This comprises daily cases of COVID-19 in Nigeria as reported by NCDC on Twitter
- 2. Cases by state: This is the aggregate cases of COVID-19 for each state in Nigeria
- 3. Cases by geopolitical zones: Nigeria has 6 geo-political zones and this dataset shows the aggregate of COVID-19 in each zone

Dataset 1: COVID-19 data in Nigeria



- 4. Cumulative confirmed cases per state: This is the daily cumulative confirmed cases of COVID-19 for each state in Nigeria
- 5. Cumulative recovery cases per state: This is the daily cumulative recovery cases of COVID-19 for each state in Nigeria
- 6. Cumulative death cases per state: This is the daily cumulative death cases of COVID-19 for each state in Nigeria.

Keywords

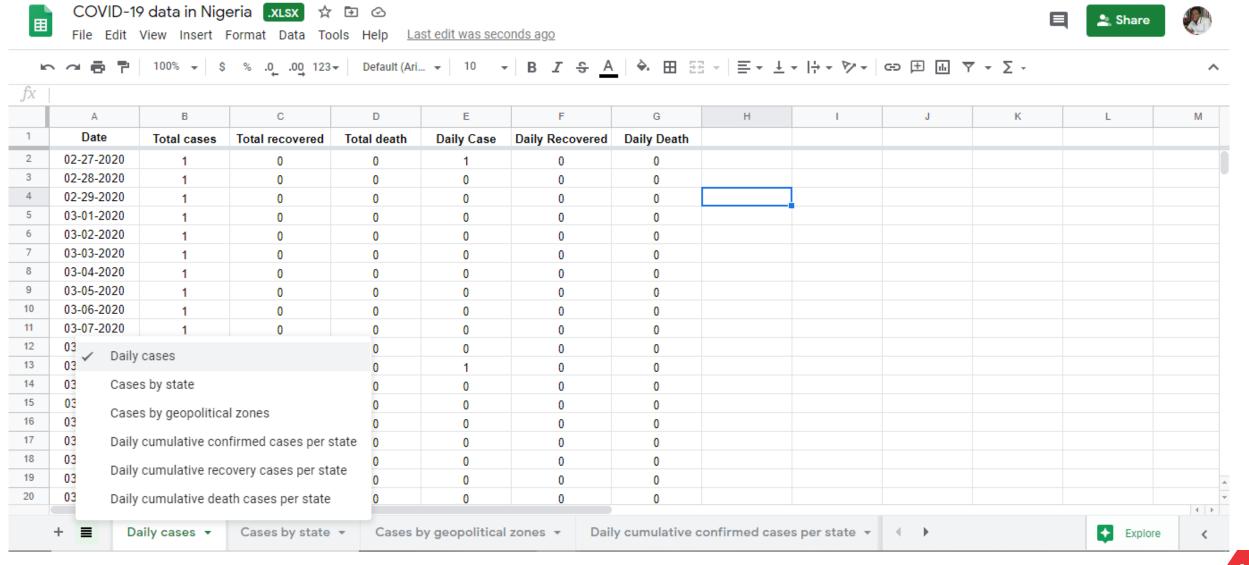


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Dataset 1: COVID-19 data in Nigeria





COVID-19 daily cases in Nigeria

Date	Total cases	Total recovered	Total death	Daily Case	Daily Recovered	Daily Death
08-29-2020	53727	41314	1011	250	297	0
08-30-2020	53865	41513	1013	138	199	2
08-31-2020	54008	41638	1013	143	125	0
09-01-2020	54247	42010	1023	239	372	10
09-02-2020	54463	42439	1027	216	429	4
09-03-2020	54587	42627	1048	124	188	21
09-04-2020	54743	42816	1051	156	189	3
09-05-2020	54905	42922	1054	162	106	3
09-06-2020	55005	43013	1057	100	91	3
09-07-2020	55160	43231	1061	155	218	4

COVID-19 cases per state

States Affected	No. of Cases (Lab Confirmed)	No. of Cases (on admission)	No. Discharged	No. of Deaths	Discharge rate	Fatality rate
Lagos	18,389	2,954	15,233	202	82.84%	1.10%
FCT	5,310	3,619	1,624	67	30.58%	1.26%
Oyo	3,194	1,195	1,961	38	61.40%	1.19%
Plateau	2,745	930	1,785	30	65.03%	1.09%
Edo	2,600	96	2,404	100	92.46%	3.85%
Kaduna	2,214	83	2,099	32	94.81%	1.45%
Rivers	2,191	66	2,067	58	94.34%	2.65%
Delta	1,768	117	1,603	48	90.67%	2.71%
Kano	1,728	70	1,604	54	92.82%	3.13%
Ogun	1,687	37	1,624	26	96.27%	1.54%
Ondo	1,561	131	1,398	32	89.56%	2.05%
Enugu	1,184	75	1,088	21	91.89%	1.77%
Ebonyi	1,030	14	986	30	95.73%	2.91%
Kwara	982	163	794	25	80.86%	2.55%
Katsina	819	338	457	24	55.80%	2.93%
Abia	816	96	712	8	87.25%	0.98%

Table 1: Confirmed cases by geopolitical zones				
Geopolitical zone	Confirmed cases	Percentage		
North East	2541	4.61%		
North Central	4,952	8.98%		
North West	5,335	9.67%		
South South	7,315	13.26%		
South East	9,097	16.49%		
South West	25,920	46.99%		
Grand Total	55,160	100.00%		

Table 2: Number of COVID-19 patients on admission				
Geopolitical zone	No. of Cases (on admission)	Percentage		
North East	138	4.61%		
South South	320	13.26%		
North West	497	9.67%		
North Central	1397	8.98%		
South East	4,139	16.49%		
South West	4,377	46.99%		
Grand Total	10,868	100.00%		

Table 3: Number of recovered cases				
. Discharged	Percentage			
2302	17.24%			
3,460	17.07%			
4,692	16.98%			
4,802	14.00%			
6,752	17.88%			
21,223	16.83%			
43,231	100.00%			
	2302 3,460 4,692 4,802 6,752 21,223			

Daily cumulative confirmed cases per state





А	GN	GO	GP	GQ
State	9/4/2020	9/5/2020	9/6/2020	9/7/2020
Abia	807	807	807	816
Adamawa	228	228	228	228
Akwa Ibom	280	280	280	282
Anambra	219	221	221	223
Bauchi	669	669	670	670
Bayelsa	391	391	391	391
Benue	460	460	460	460
Borno	741	741	741	741
Cross River	83	83	83	83
Delta	1756	1768	1768	1768
Ebonyi	1005	1014	1020	1030
Edo	2594	2594	2597	2600
Ekiti	281	282	283	287
Enugu	1184	1184	1184	1184
Gombe	723	744	744	744
Imo	532	534	534	534
Jigawa	322	322	322	322
Kaduna	2184	2189	2208	2214
Kano	1727	1727	1727	1728

Α	GN	GO	GP	GQ
State	9/4/2020	9/5/2020	9/6/2020	9/7/2020
Abia	712	712	712	712
Adamawa	180	180	180	180
Akwa Ibom	238	238	238	242
Anambra	181	181	181	181
Bauchi	637	637	644	644
Bayelsa	360	360	360	363
Benue	291	291	291	291
Borno	671	671	703	703
Cross River	73	73	73	73
Delta	1595	1603	1603	1603
Ebonyi	941	956	974	986
Edo	2361	2361	2366	2404
Ekiti	244	247	248	253
Enugu	1088	1088	1088	1088
Gombe	641	643	643	643
lmo	210	210	210	211
Jigawa	308	308	308	308
Kaduna	2071	2086	2095	2099
Kano	1601	1601	1604	1604

Daily cumulative death cases per state



A	GN	GO	GP	GQ
State	9/4/2020	9/5/2020	9/6/2020	9/7/2020
Abia	8	8	8	8
Adamawa	15	15	15	15
Akwa Ibom	8	8	8	8
Anambra	19	19	19	19
Bauchi	14	14	14	14
Bayelsa	21	21	21	21
Benue	9	9	9	9
Borno	36	36	36	36
Cross River	8	8	8	8
Delta	48	48	48	48
Ebonyi	27	28	29	30
Edo	100	100	100	100
Ekiti	5	5	5	5
Enugu	21	21	21	21
Gombe	23	23	23	23
lmo	11	11	11	11
Jigawa	11	11	11	11
Kaduna	32	32	32	32
Kano	54	54	54	54



COVID-19, health care centers, and some economic data in Nigeria

This dataset comprises geocoordinate of each state, population by gender, COVID-19 cases per state, budget for each state, total revenue available for each state in 2019, health care facilities for each state, and COVID-19 Government laboratories per state in Nigeria.

Distributions + Create

COVID -19 Economic data in xlsx

The XLSX distribution of COVID-19, health and Economic data in Nigeria

Issued 01-09-2020 Modified 01-09-2020 Media Type

https://www.w3.org/TR/vocab-dcat-2/#bib-iana- media-types

Metadata Issued 01-09-2020	Metadata Modified 04-09-2020
Version	
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<u>en</u>	
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cc-by-nc-nd4.0	
Issued	
01-09-2020	
Modified	
01-09-2020	

Settings

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Keywords



• COVID-19	:
COVID-19 government testing laboratory	
Corona Virus	:
Health care facilities per state in Nigeria	
State budget for 2019	-
Total revenue available for each state in Nigeria in 2019	-
intitial 2020 budget per state in Nigeria	
population by gender in Nigeria	:
population per state in Nigeria	:
revised 2020 budget per state	:

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Location		Geo Coordinate		Population estimates of 0 to 100 years old from GEOPODE		
State	Geo political zone	Latitude	Longitude	Female	Male	Total
Abia	South East	5.532003041	7.486002487	2,117,742	1,965,828	4,083,570
Adamawa	North East	10.2703408	13.2700321	1,834,828	1,771,877	3,606,705
Akwa Ibom	South South	5.007996056	7.849998524	1,801,535	1,684,078	3,485,613
Anambra	South East	6.210433572	7.06999711	2,192,738	2,036,023	4,228,761
Bauchi	North East	11.68040977	10.19001339	3,140,988	3,038,042	6,179,030
Bayelsa	South South	4.7719	6.0699	560,865	539,087	1,099,952
Benue	North Central	7.190399596	8.129984089	2,286,249	2,161,538	4,447,787
Borno	North East	10.62042279	12.18999467	2,883,631	2,692,682	5,576,313
Cross River	South South	4.960406513	8.330023558	1,554,583	1,414,947	2,969,530
Delta	South South	5.890427265	5.680004434	1,880,125	1,785,026	3,665,151
Ebonyi	South East	6.178	7.9593	1,438,935	1,332,597	2,771,532
Edo	South South	6.340477314	5.620008096	2,057,366	1,963,003	4,020,369
Ekiti	South West	7.630372741	5.219980834	1,049,887	1,023,826	2,073,713
Enugu	South East	6.867034321	7.383362995	1,482,946	1,371,914	2,854,860
Gombe	North East	10.29044293	11.16995357	1,473,771	1,387,304	2,861,075
Imo	South East	5.492997053	7.026003588	3,670,761	3,480,781	7,151,542
ligawa	North Wost	11 7001901	0.350334607	2 906 401	2 702 //78	5 608 870



А	В	N	0	Р	Q		
ı	Location	States budget scraped from various newspapers in Nigeria					
State	Geo political zone	2019 Budget (bn)	2020 Initial budget (bn) presented	2020 Revised budget (bn) due to COVID-19	Reduction rate		
Abia	South East	140.21	136.6	102.7	24.82		
Adamawa	North East	244	183.3	139.31	24.00		
Akwa Ibom	South South	672.98	597.73	366	38.77		
Anambra	South East	157.1	137.1	112.8	17.72		
Bauchi	North East	198.85	167.2	128	23.44		
Bayelsa	South South	299	242.18	183.15	24.37		
Benue	North Central	199.7	189	119	37.04		
Borno	North East	144.7	146.8	108.8	25.89		
Cross River	South South	1,040	1100	147.1	86.63		
Delta	South South	390.3	395.5	282.3	28.62		
Ebonyi	South East	188.4	178.4	131.8	26.12		
Edo	South South	183.74	179.2	128.8	28.13		
Ekiti	South West	129.9	124.5	91.1	26.83		
Enugu	South East	109.2	169.56	146.4	13.66		
Gombe	North East	122.4	130.83	107.4	17.91		
Imo	South East	250.51	197.6	108.3	45.19		
ligawa	North Wost	160 1/	152 02	124	19 01		



А	В	V	W	Х	Y ∢	▶ AE
Location		Health care facilities from GRID3			GRID3	COVID-19 Government laboratories
State	Geo political zone	Primary	Secondary	Tertiary	Total	Total
Abia	South East	936	138	6	1080	2
Adamawa	North East	1672	20	4	1696	1
Akwa Ibom	South South	547	10	3	560	1
Anambra	South East	979	151	17	1147	3
Bauchi	North East	1246	23	3	1272	2
Bayelsa	South South	264	3	2	269	1
Benue	North Central	1791	52	10	1853	1
Borno	North East	736	8	15	759	1
Cross River	South South	1245	26	3	1274	2
Delta	South South	531	3		534	1
Ebonyi	South East	927	59	11	997	1
Edo	South South	453	22	5	480	2
Ekiti	South West	461	48	3	512	1
Enugu	South East	909	99	17	1025	2
Gombe	North East	722	34	5	761	1
Imo	South East	879	108	10	997	2
ligawa	North Wost	6/18	າ	6	656	1



LABORATORIES	STATE	TYPE	Table 1: Government laboratories for testing COVID-	19
State Specialist Hospital, Amachara lab	Abia	GeneXpert	STATE	Number of laboratories
State Specialist Hospital , Amachara	Abia	PCR Laboratory		0
Federal Medical Centre Yola	Adamawa	PCR Laboratory	Abia	2
Molecular Diagnostics Laboratory, Akwa Ibom State	Akwa Ibom	PCR Laboratory	Adamawa	1
Accunalysis medical diagnostics	Anambra	PCR Laboratory	Akwa Ibom	1
COOUTH Awka Abbott lab	Anambra	PCR Laboratory	Anambra	3
General Hospital Onitsha	Anambra	GeneXpert	Bauchi	2
Bauchi state Reference Laboratory	Bauchi	PCR Laboratory	Bayelsa	1
Abubakar Tafawa Balewa University Teaching Hospital	Bauchi	PCR Laboratory	Benue	1
161 AHM lab	Benue	GeneXpert	Borno	1
University of Maiduguri Teaching Hospital	Borno	PCR Laboratory	Cross River	2
Lawrence Henshaw Memo Calabar	Cross River	GeneXpert	Delta	1
UCTH Lab	Cross River	GeneXpert	Ebonyi	1
Delta Mobile Laboratory	Delta	PCR Laboratory	Edo	2
Alex Ekwueme Federal University Teaching Hospital	Ebonyi	PCR Laboratory	Ekiti	1
Irua Specialist Teaching Hospital	Edo	PCR Laboratory	Enugu	2
University of Benin Teaching Hospital	Edo	PCR Laboratory	FCT	5
Ekiti - 54gene	Ekiti	PCR Laboratory	Gombe	1
University of Nigeria Teaching Hospital lab	Enugu	GeneXpert	Imo	2
University of Nigeria Teaching Hospital Molecular Virology Laboratory	Enugu	PCR Laboratory	Jigawa	1

Dataset 3: Infodemics of COVID-19 on social media in Nigeria



Infodemics of COVID-19 on social media in Nigeria

Participants were required to share a minimum of 5 messages they have received about COVID-19 from different channels e.g. SMS, Email, Whatsapp, Facebook through DSN's Data Collection APP (DataCrowd) between Friday, April 24 and Sunday, May 10, 2020. Participants are required to share a minimum of 5 messages they have received about COVID-19 from different channels e.g. SMS, Email, Whatsapp, and Facebook through DSN's Data Collection APP (DataCrowd). The data was collected between April 24th and May 10th

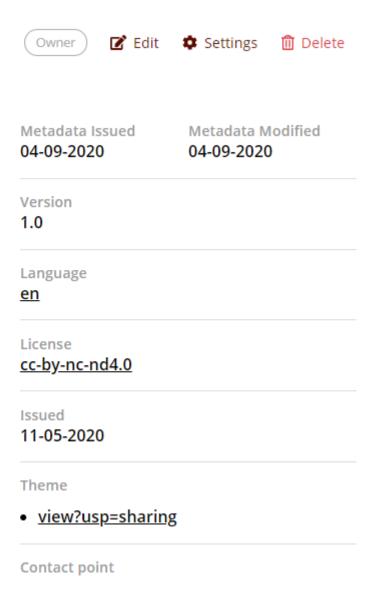
Distributions + Create

Infodemics of COVID-19 on social media in Nigeria

This Excel file contains 3000 messages that participants received about COVID-19 in Nigeria

Issued 04-09-2020 **Modified** 04-09-2020 **Media Type**

https://www.w3.org/TR/vocab-dcat-2/#bib-iana- media-types



Keywords



COVID-19 infodemic and misinformation in Nigeria	
• COVID-19	×
Corona virus messages in Nigeria	×
Coronavirus in Nigeria	×
Misinformation of COVID-19	×
disinformation about COVID-19 in Nigeria	×
myth about COVID-19	×

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Available Dataset for DSN FDP

File Edit View Insert Format Data Tools Help <u>Last edit was on July 13</u>















Message Source			
A		В	
Message Source	Message Content		
Whatsapp	PREVENTION OF CONTACTING COVID-19: 1) Wash your hands regularly with clean water and any soap for at least 20 seconds. *Soap creates lather that penetrates the lipid membrane of the virus thereby weakening the virulence of the vi *Do not use strong detergents to wash your hands to avoid causing you contact allergies (contact dermatitis).		
Whatsapp	Massive Recruitment In Akwa Ibom State!! Would you like to partake in the ongoing Health Sensitisation Programs in All the 31 Local Govt Area in Akwa If yes, Text name, age, qualification, and mobile number to 08181779560 REQUIREMENTS: Applicants must be between 24-39 years of age with good communication skills Qualification: SSC, NCE, OND, HND and BSc in any field. N/B Successful candidates will undergo intensive Training to enable them carry out their task You can spread in your various groups so that people can benefit. More than 6000 persons are needed to care		
Twitter	Avoid shaking of hands, wash your hands with liguid soap and running water or use acholic sanitizer		
Twitter	Avoid shaking of hands, wash your hands with liguid soap and running water or use acholic sanitizer		
Others	The tobacco industry is creating controversy & confusion about the risk of nicotine & tobacco product use and FACT: Health experts have warned that smokers with COVID-19 likely suffer more serious conditions that cou		
SMS	Take Responsibility! Prevent coronavirus by cleaning all surfaces frequently. High-contact surfaces include do	•	

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Catalogue 2: Lockdown tweets of Nigerians

V FAIR Data Point



Data Science Nigeria FAIR Data Point

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Metadata Issued 04-08-2020	Metadata Modified 04-09-2020
Version 1.0	
Language <u>en</u>	
License cc-by-nc-nd3.0	
Start date 04-08-2020	
Institution country Q1033	
Download RDF ttl rdf+xml json-ld	1

Lockdown tweets of Nigerians

This contains a collection of tweets from the first 2 weeks of the enforcement of lockdown in 4 different states in Ogun State as as non clinical measures for the control of the spread of COVID-19

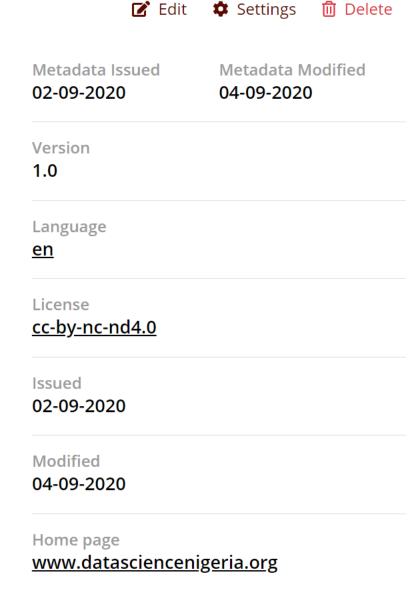
Datasets + Create

LOCKDOWN and FACEMASK tweets of Lagos, Abuja, Ogun and Kano on Tweeter

A textual description of tweets having the keyword "LOCKDOWN" spread sheet in .xlsx

view?usp=sharing

Issued 02-09-2020 **Modified** 04-09-2020





LOCKDOWN and FACEMASK tweets of Lagos, Abuja, Ogun and Kano on Tweeter

🗹 Edit 💠 Settings 🛍 Delete

A textual description of tweets having the keyword "LOCKDOWN" spread sheet in .xlsx

Distributions + Create

LOCKDOWN and FACEMASK tweets of Lagos, Abuja, Ogun and Kano on Twitter

Tweets having the keyword "LOCKDOWN" were streamed and collected within the 50km2 radius of each specified coordinate. The tweets were collected between 11th June, 2020 to 14th Jun...

Issued 02-09-2020 **Modified** 04-09-2020 **Media Type** https://www.w3.org/TR/vocab-dcat-2/#bib-iana- media-types

Metadata Issued 02-09-2020	Metadata Modified 04-09-2020
Version 1.0	
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Issued 01-06-2020	
Theme	
• view?usp=sharing	
Contact point	
Keyword	
• CORONAVIRUS	
• COVID-19	
• FACEMASK	

LOCKDOWN

-25



<u>Data Science Nigeria FAIR Data Point</u> / <u>Lockdown tweets of Nigerians</u> /...

/ LOCKDOWN and FACEMASK tweets o...

LOCKDOWN and FACEMASK tweets of Lagos, Abuja, Ogun and Kano on Twitter

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Metadata Issued 02-09-2020	Metadata Modified 04-09-2020
Version 1.0	
Language <u>en</u>	
License cc-by-nc-nd4.0	
Issued 01-07-2020	
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Format .xlsx	
Byte size 3665KB	

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Data Entry and Link to Data

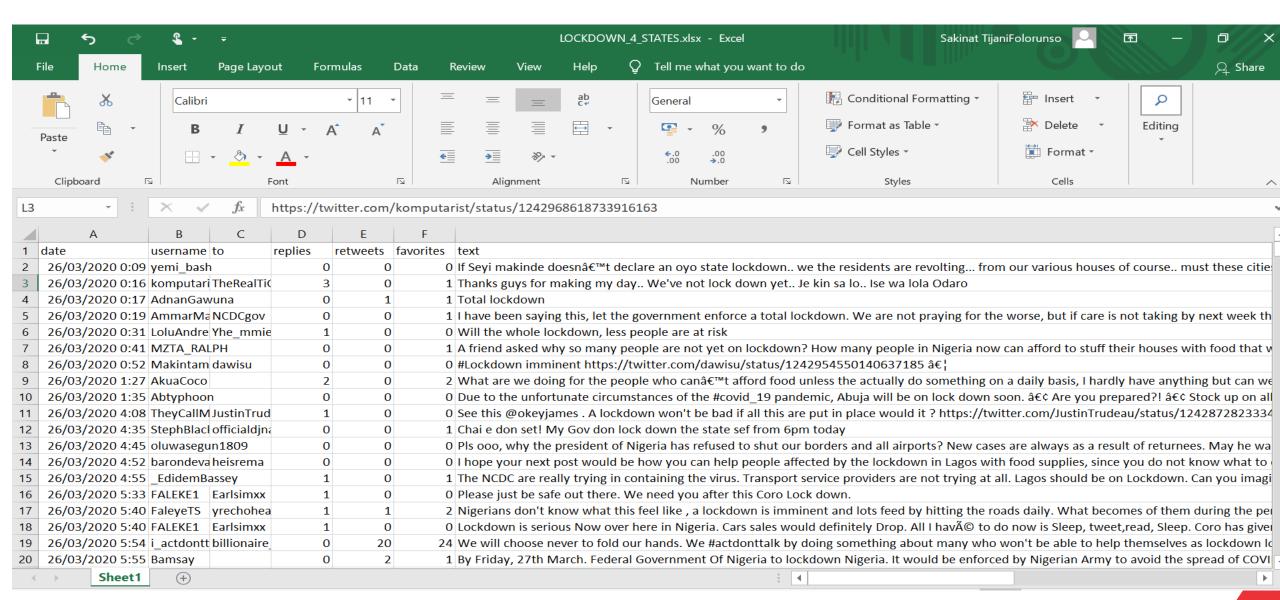
CEDAR METADATA



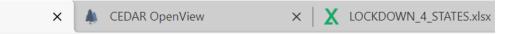
- Created a workspace
- Created a folder for related work
- Created a metadata template for data
- Populate the template
- Make it open view
- Publish the metadata

The LockedDown Tweet dataset

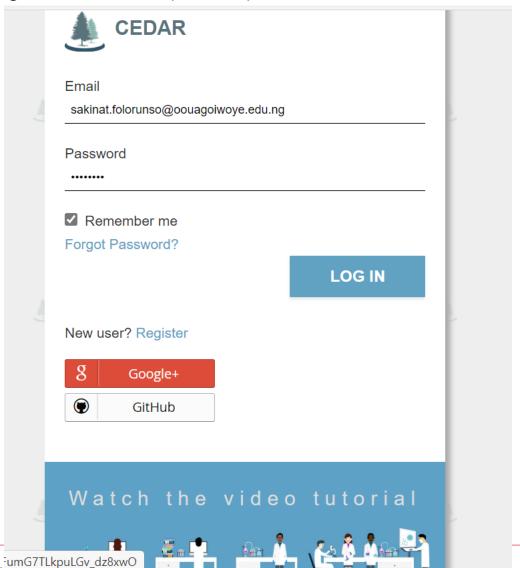




CEDAR account creation



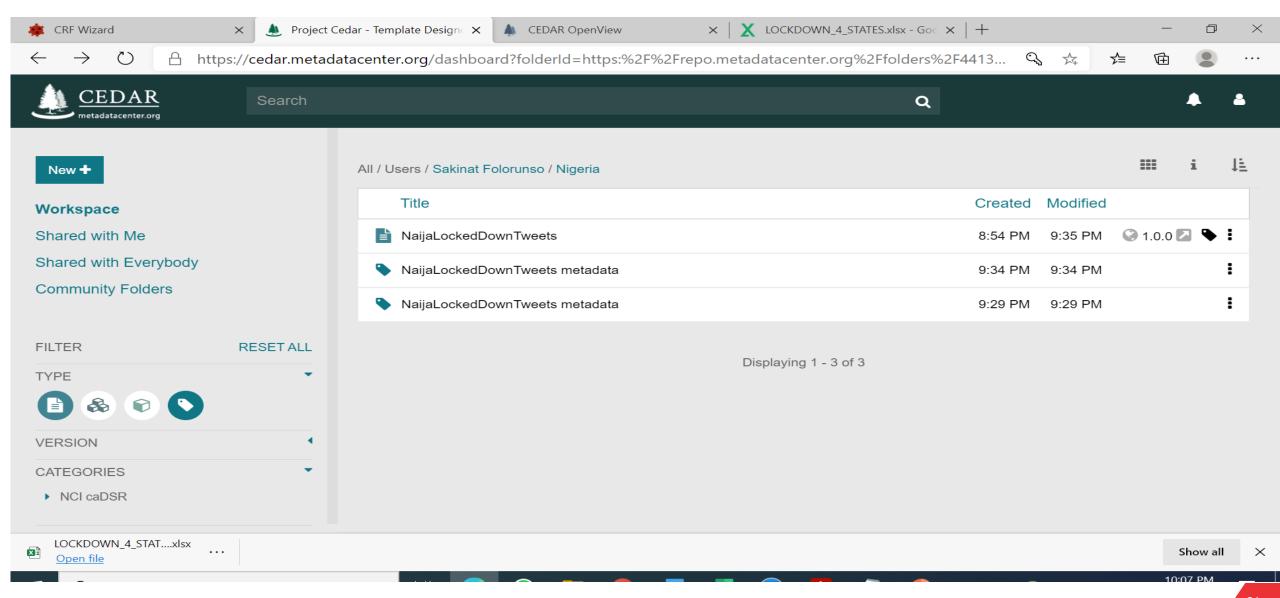
rg/auth/realms/CEDAR/protocol/openid-connect/auth?client_id=cedar-a





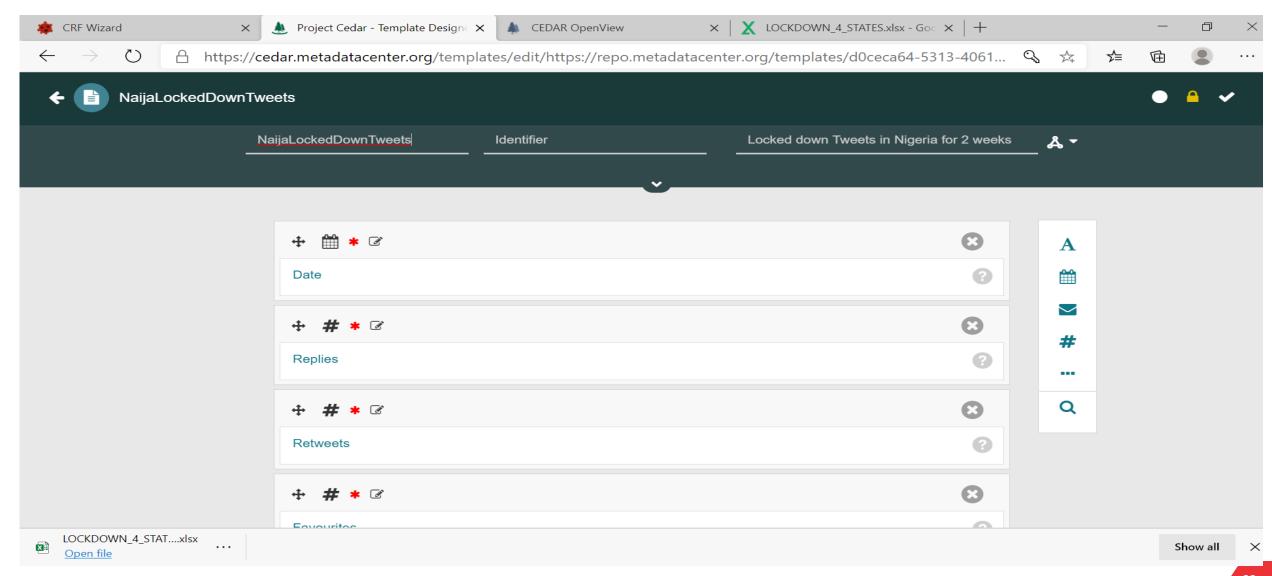
TEMPLATE CREATION





FIELDS CREATION





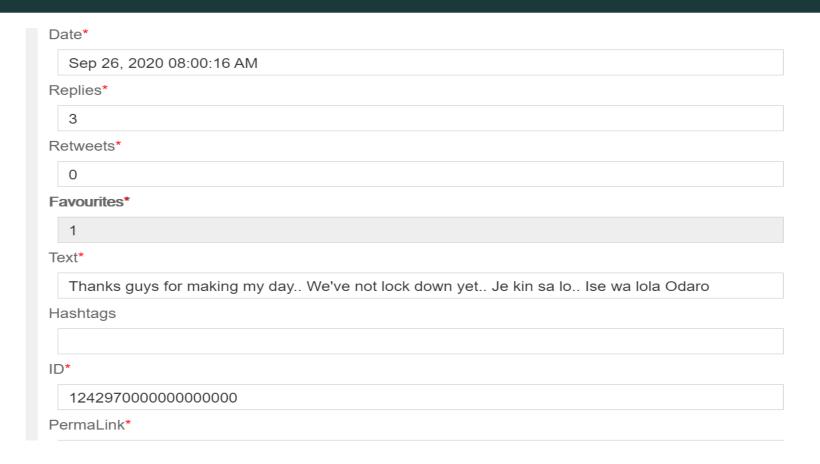
POPULATING THE TEMPLATE





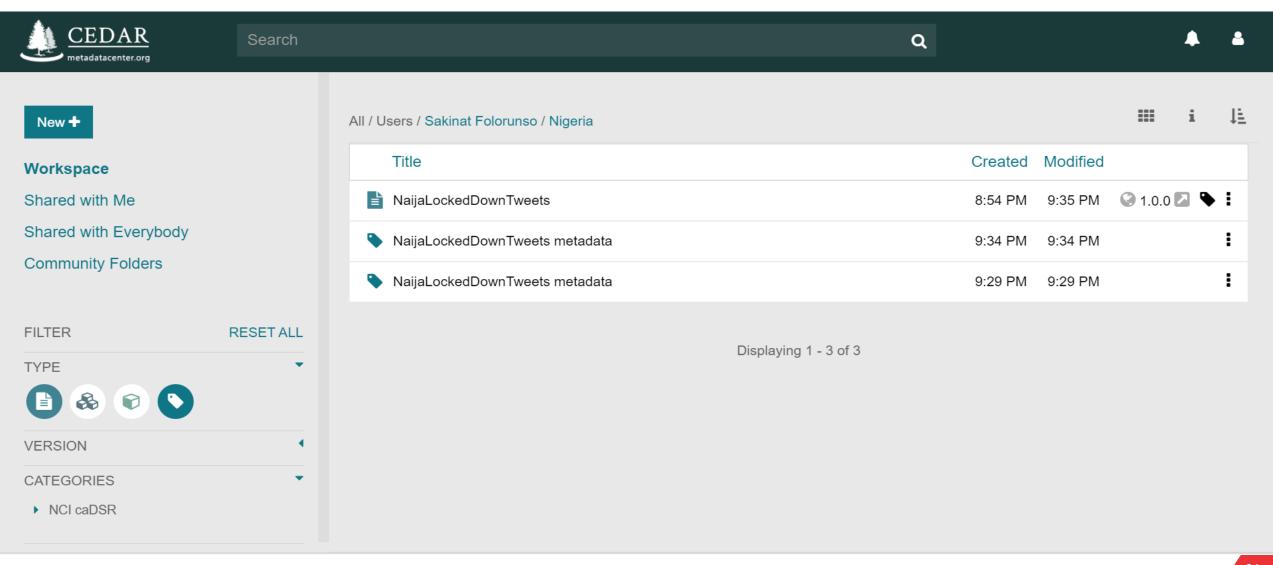
NaijaLockedDownTweets metadata





SOME POPULATED ENTRIES

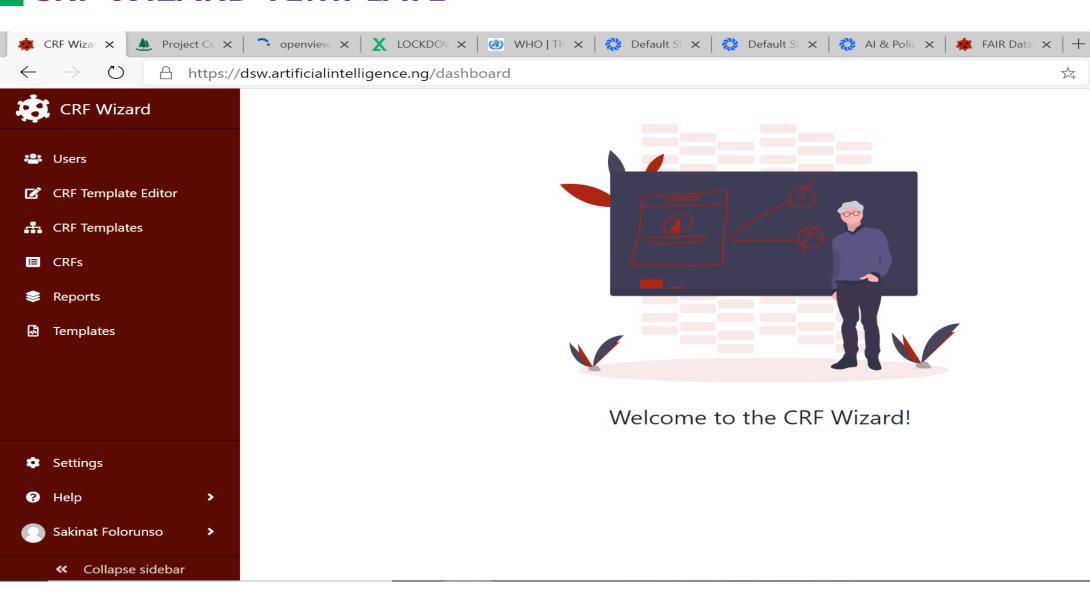




CRF WIZARD TEMPLATE



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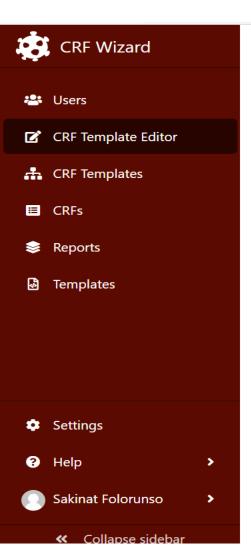




Welcome to the CRF Wizard!

CRF TEMPLATE EDITOR

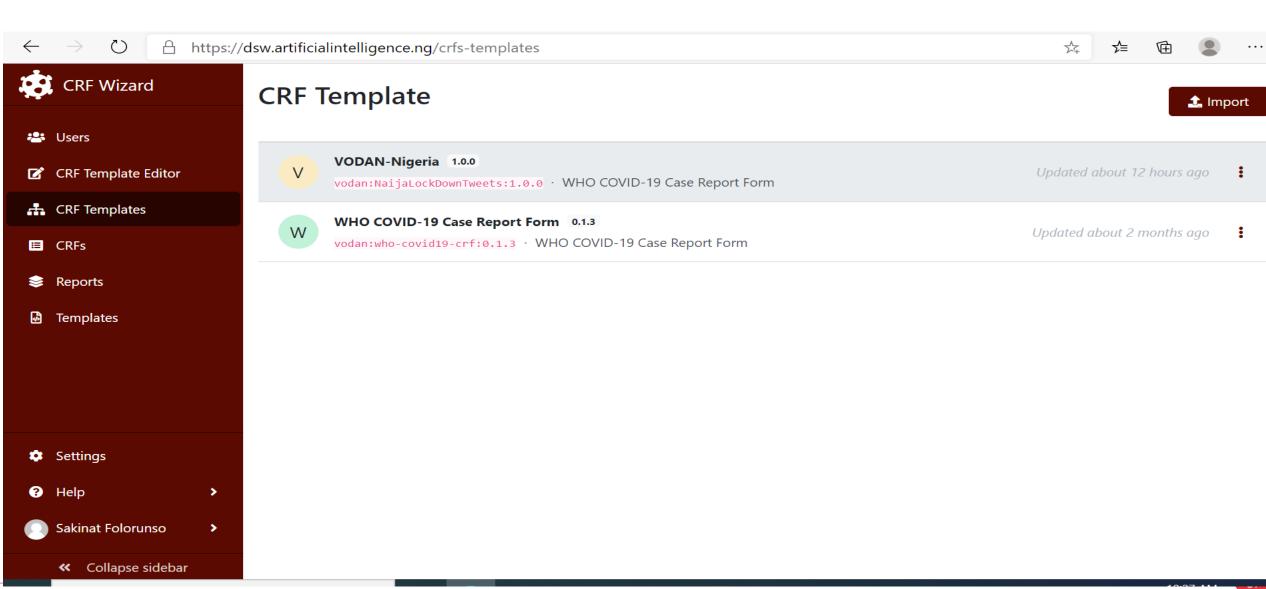






VODAN-NIGERIA TEMPLATE

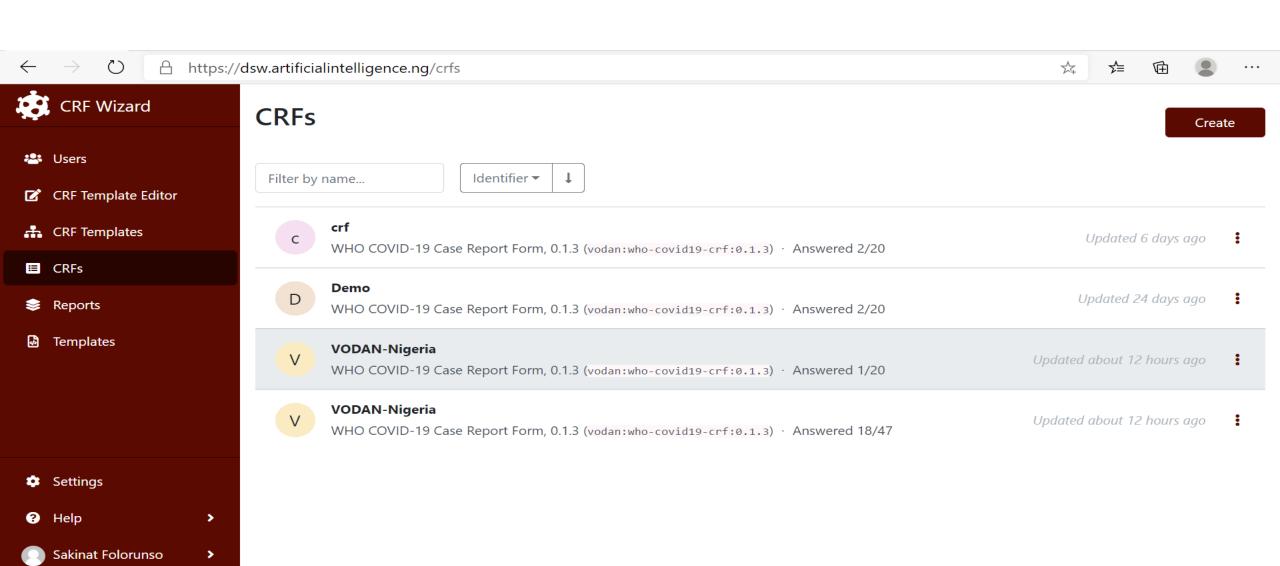




Sensitivity: Internal

VODAN-NIGERIA CRF





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Gains

Gain



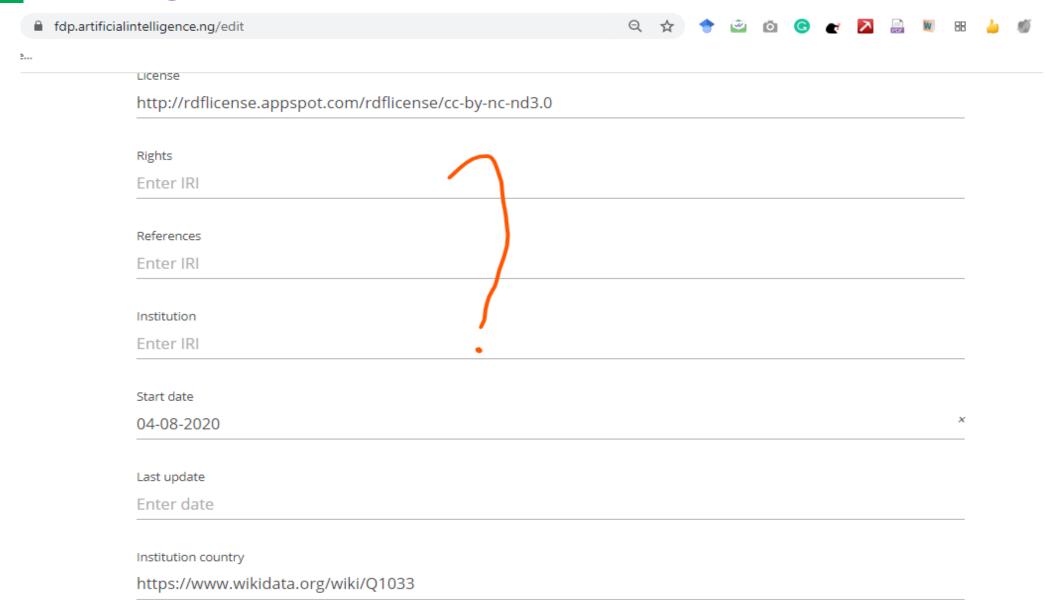
- ML models can visit for data analysis
- Build model for decision support systems
- Get hidden information and detect novel patterns from past, present and forecast into the future
- We can also use (tweets dataset) thematic and qualitative analysis to manage mis- and Disinformation of pandemic.





- How to populate the CEDAR form conveniently as one of the data contains
 26,000+ rows
- Linking CEDAR to the CRF wizard form
- Linking CEDAR to CRF to FDO
- How to correctly fill out the CRF wizard form and create an effective template
- Importing into CRF, we tried . json, xls, . csv format but not accepting







Rights Enter IRI Issued 18-07-2020 Modified 18-07-2020 Theme • https://drive.google.com/file/d/13meLVwVCE6d949Z-Nj-AooaFe2Yq2sp9/view?usp=sharing + Add Contact point http://fdp.artificialintellegence.ng/ Keyword • COVID-19 × • COVID-19 daily update in Nigeria ×

×

• COVID-19 per state in Nigeria



COVID-19 dataset in Nigeria

This Excel workbook has 6 worksheets and they are named as follows: 1. Daily cases: This comprises daily cases of COVID-19 in Nigeria as reported by NCDC on Twitter. 2. Cases by state: This is the aggregate cases of COVID-19 for each of the 36 states in Nigeria 3. Cases by geopolitical zones: Nigeria has 6 geo-political zones and this dataset shows the aggregate of COVID-19 in each zone. 4. Cumulative confirmed cases per state: This is the daily cummulative confirmed cases of COVID-19 for each state in Nigeria 5. Cumulative recovery cases per state: This is the daily cummulative recovery cases of COVID-19 for each state in Nigeria 6. Cumulative death cases per state: This is the daily cummulative death cases of COVID-19 for each state in Nigeria.





Thank you







Website: www.datasciencenigeria.org

Email: info@datasciencenigeria.org

Twitter: Datasciencenig

Instagram: Datasciencenigeria

Facebook: facebook.com/datasciencenig

YouTube: https://goo.gl/Vcjjyp

Phone: +2348140000853

For videos and other reports, you can see a link to 25 key milestones of the non-profit via

this link https://goo.gl/Hc5Bhd