Brazilian feelings about elections (on twitter)

Ciência de dados - IMD0905

Professor Ivanovitch

Hello!

We are:

Hugo

Map plotting and
data cleaning

Paulo

Data collecting
and processing

Tyrone

Idealizer, research
and documenting

The great idea

What do we want to do?

Feeling analysis from twitter

◈ Get a lot of tweets in a context

◈ Analyze the content polarity

◈ Plot it on a map divided by states

How to do this?

Which tools/libs did we use?

Python Libraries

TweePy

An easy-to-use Python library for accessing the Twitter API.

TextBlob

A Python library for processing textual data. It provides a simple API for into common natural language processing (NLP) tasks.

Folium

Folium makes it easy to visualize data that's been manipulated in Python on an interactive leaflet map.

Shapely

Shapely is a BSD-licensed Python package for manipulation and analysis of planar geometric objects
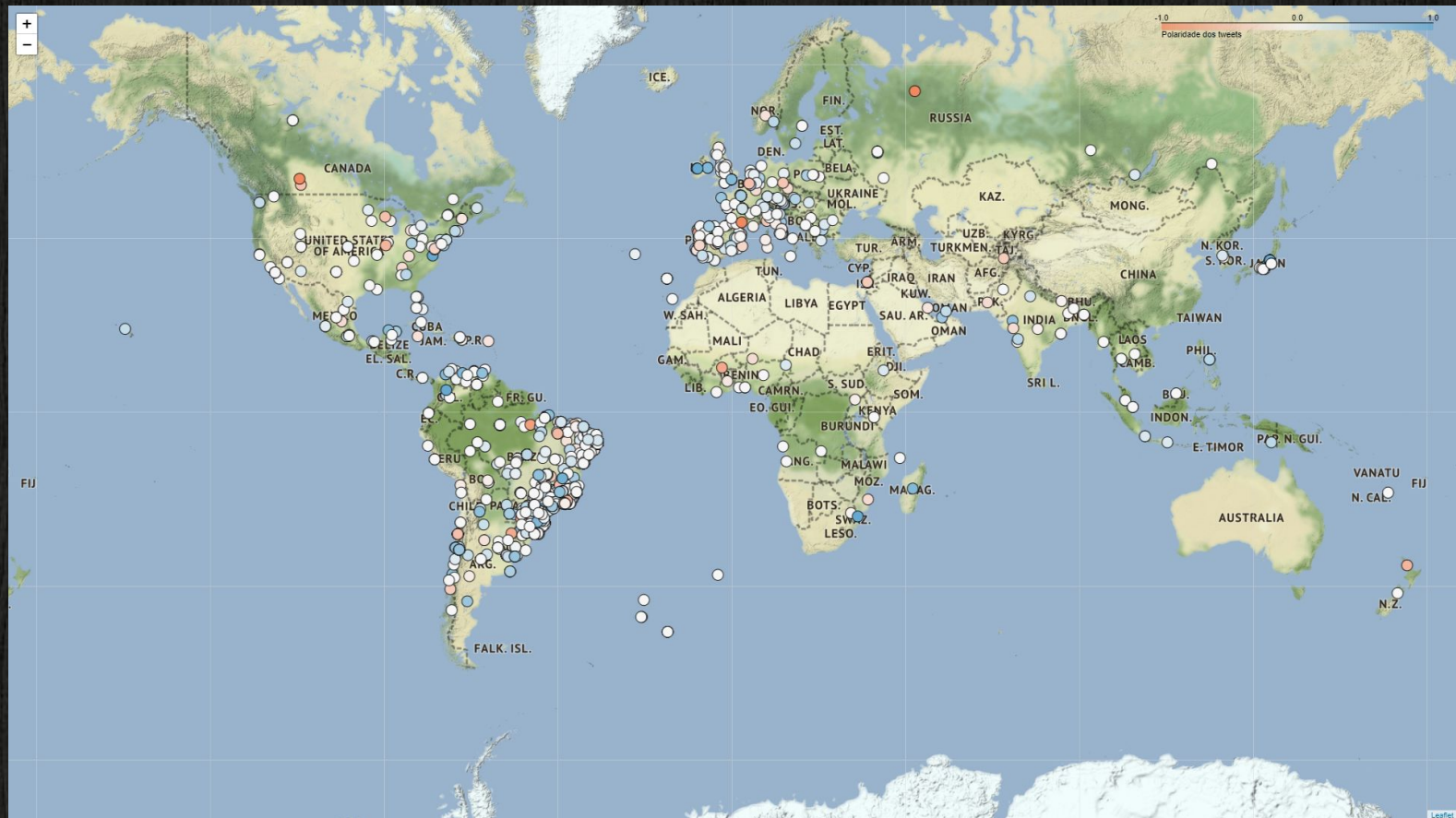
Challenges?

- Tweet doesn't provides a nice geolocation
- Google translate API rate limit
- Choose the search key
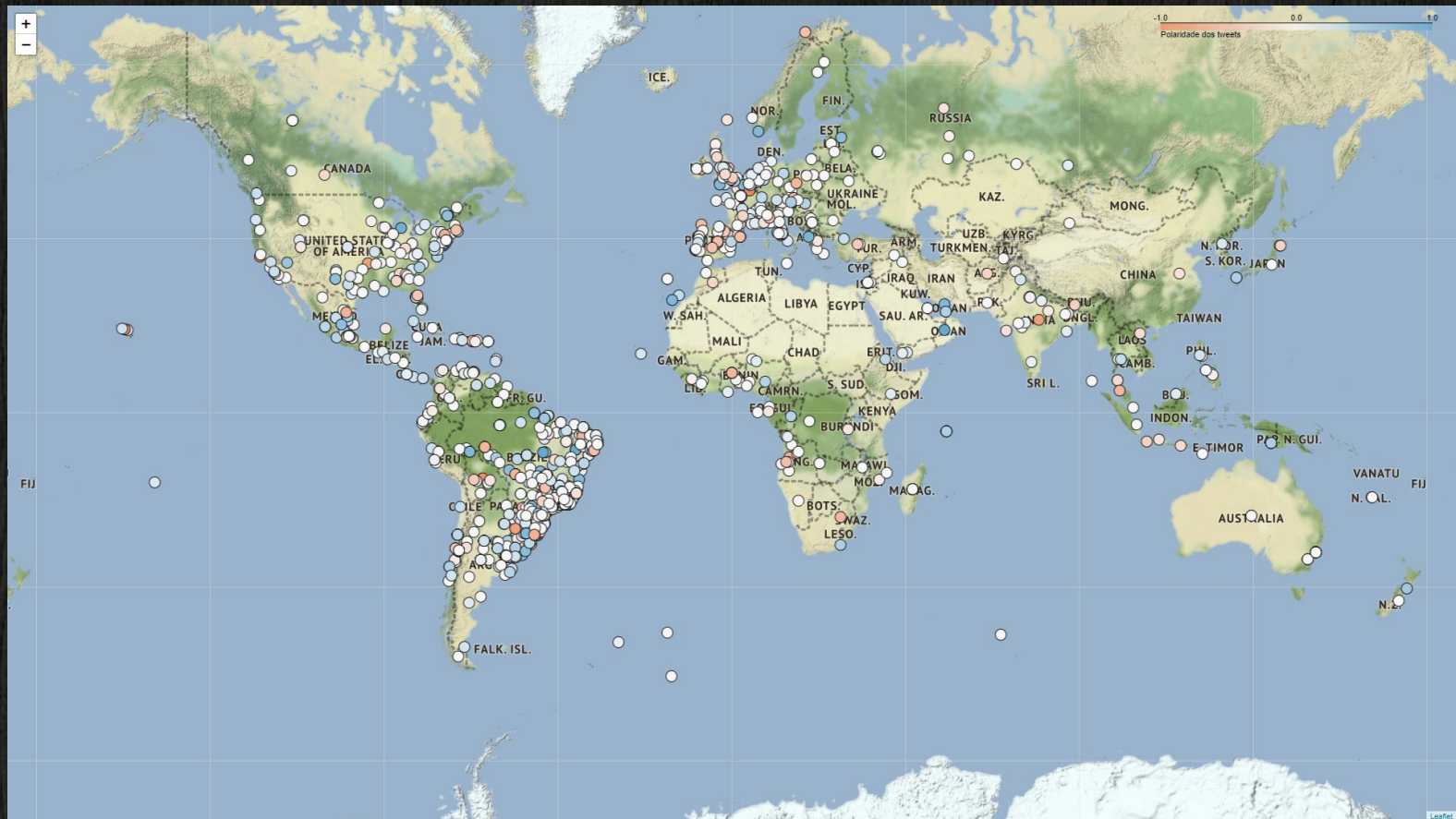
Results

Circle markers

Bolsonaro

28/10/2018 09:00 BRT
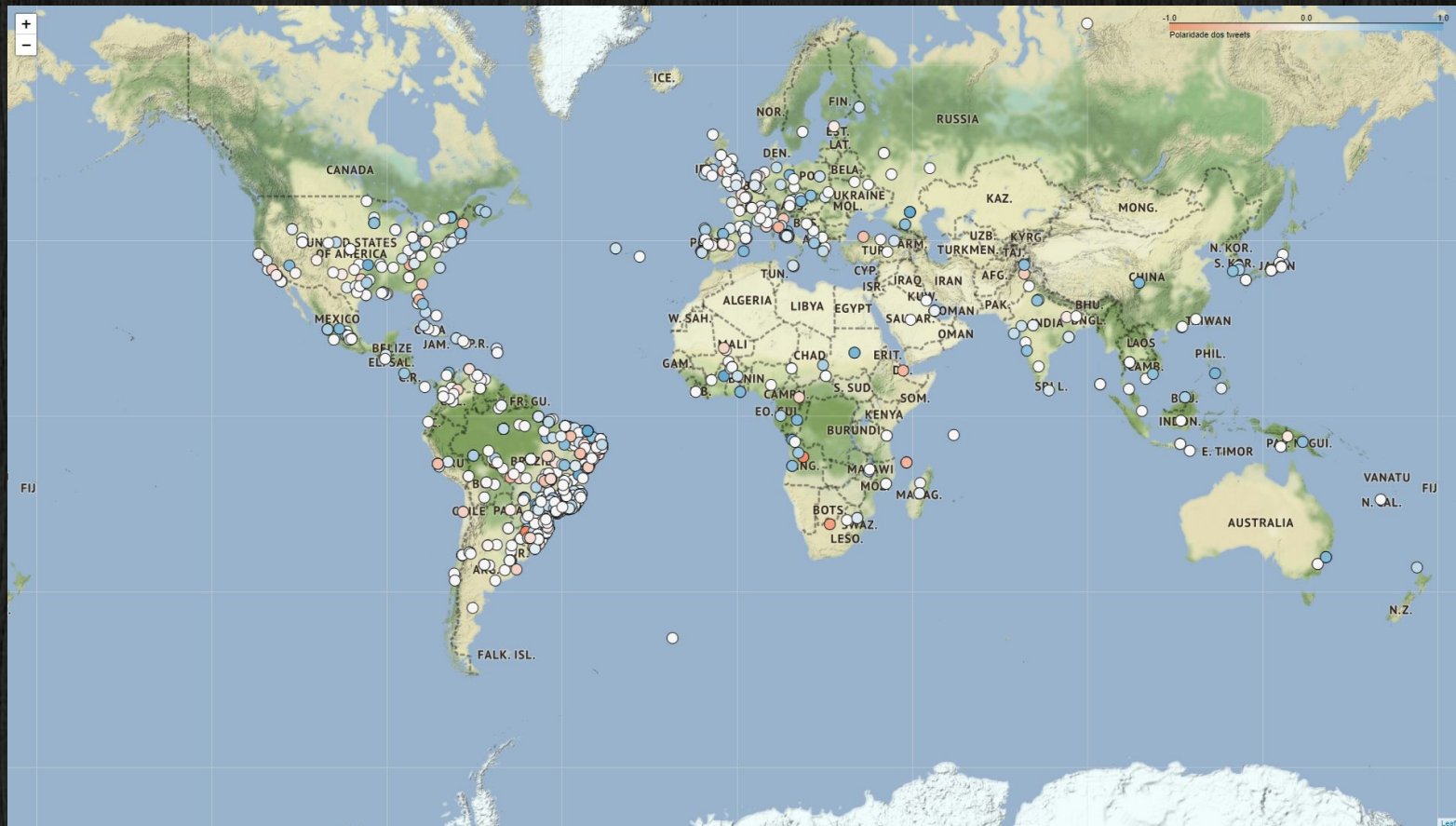
Circle markers

Bolsonaro

28/10/2018 20:00 BRT

Circle markers

Haddad

28/10/2018 09:00 BRT
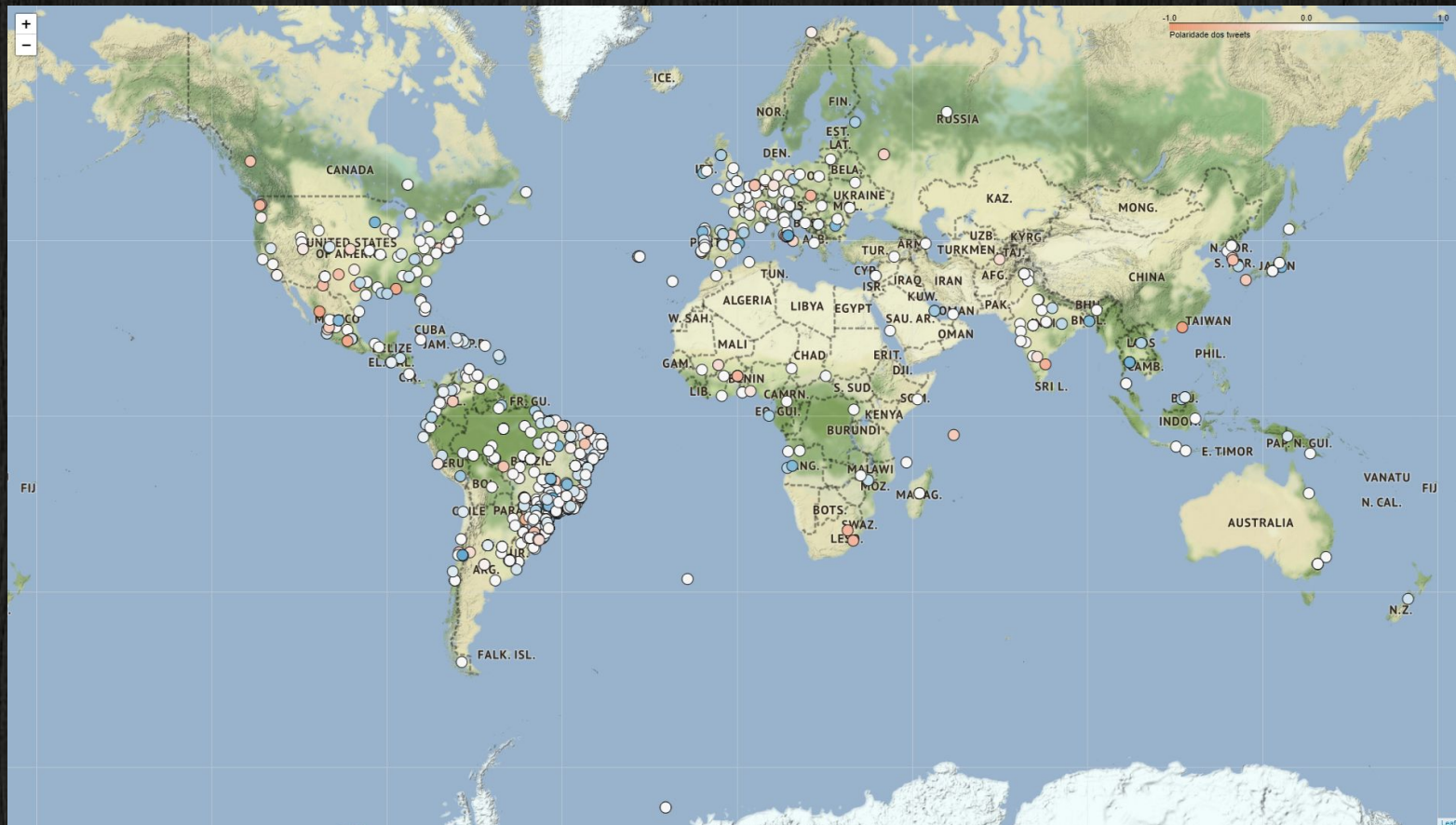
Circle markers

Haddad

28/10/2018 20:00 BRT
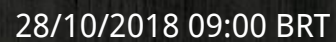
Heat map

Bolsonaro (polarity > 0.5)

28/10/2018 09:00 BRT

Heat map

Bolsonaro (polarity < -0.5)

28/10/2018 09:00 BRT

Heat map

Bolsonaro (polarity > 0.5)

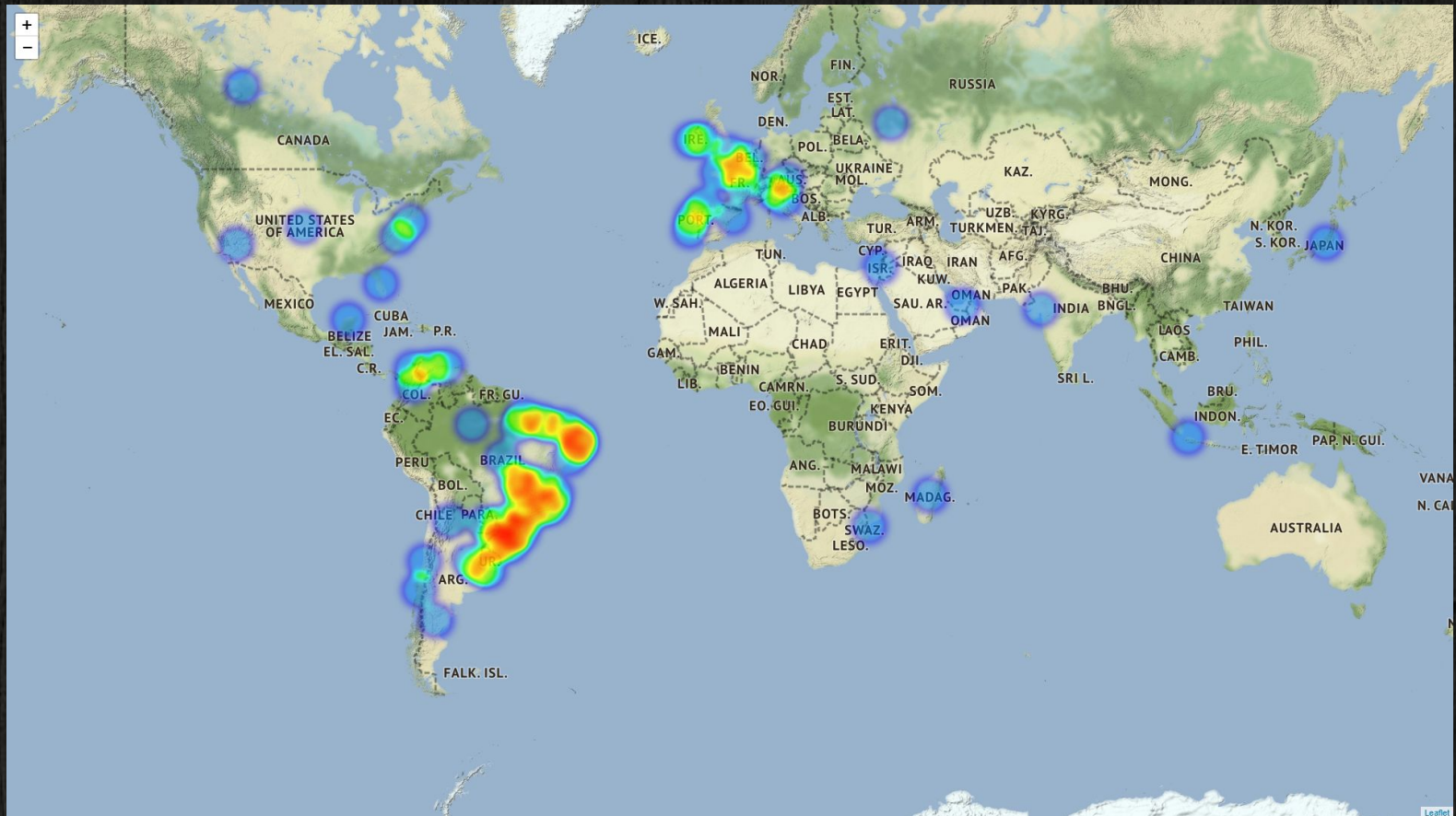

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Heat map

Bolsonaro (polarity < -0.5)
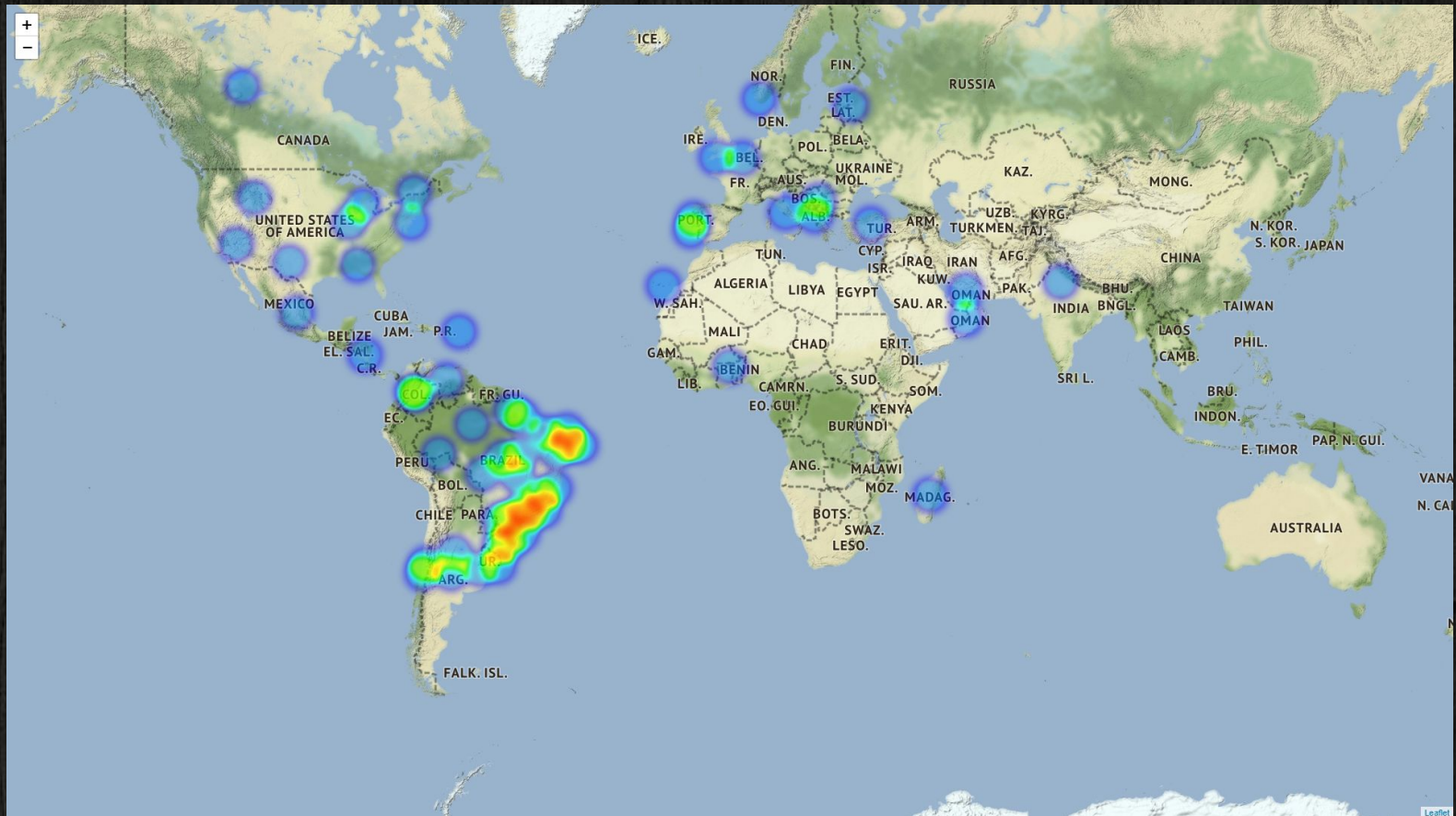
28/10/2018 20:00 BRT

Heat map
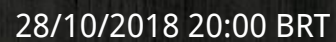
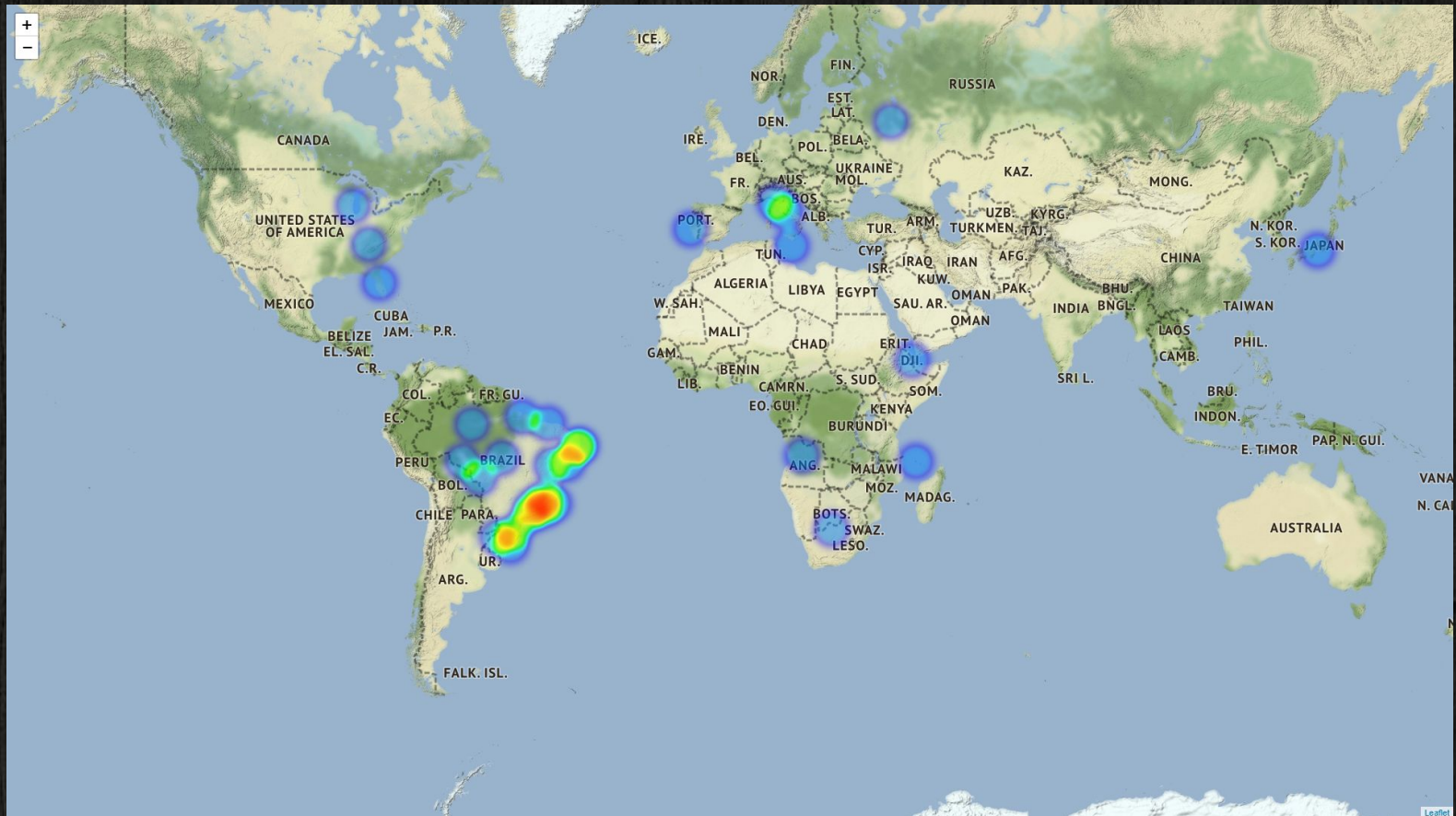**Haddad** (polarity > 0.5)

28/10/2018 09:00 BRT

Heat map

Haddad (polarity < -0.5)

28/10/2018 09:00 BRT

Heat map
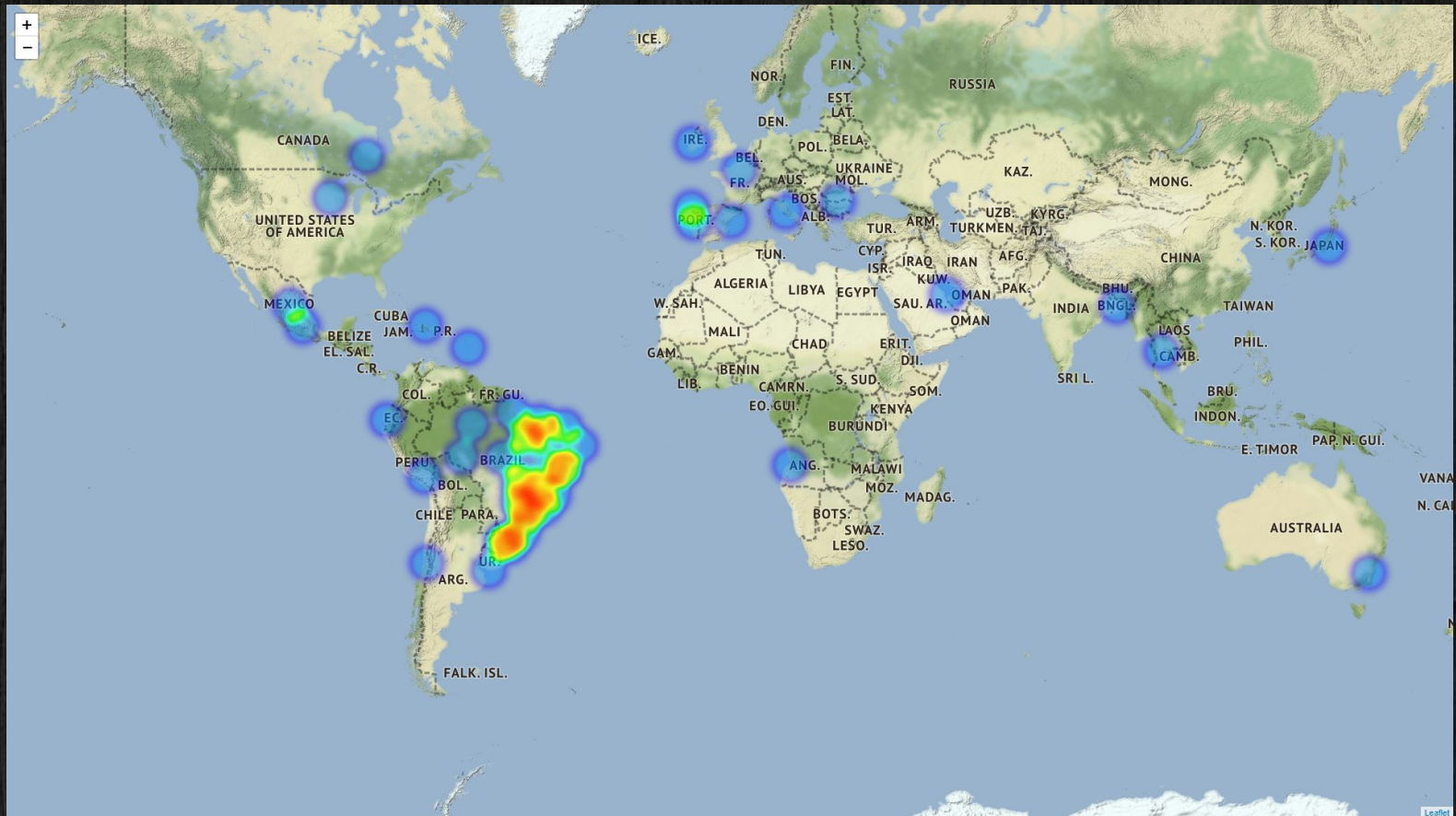
Haddad (polarity > 0.5)

28/10/2018 20:00 BRT

Heat map

Haddad (polarity < -0.5)
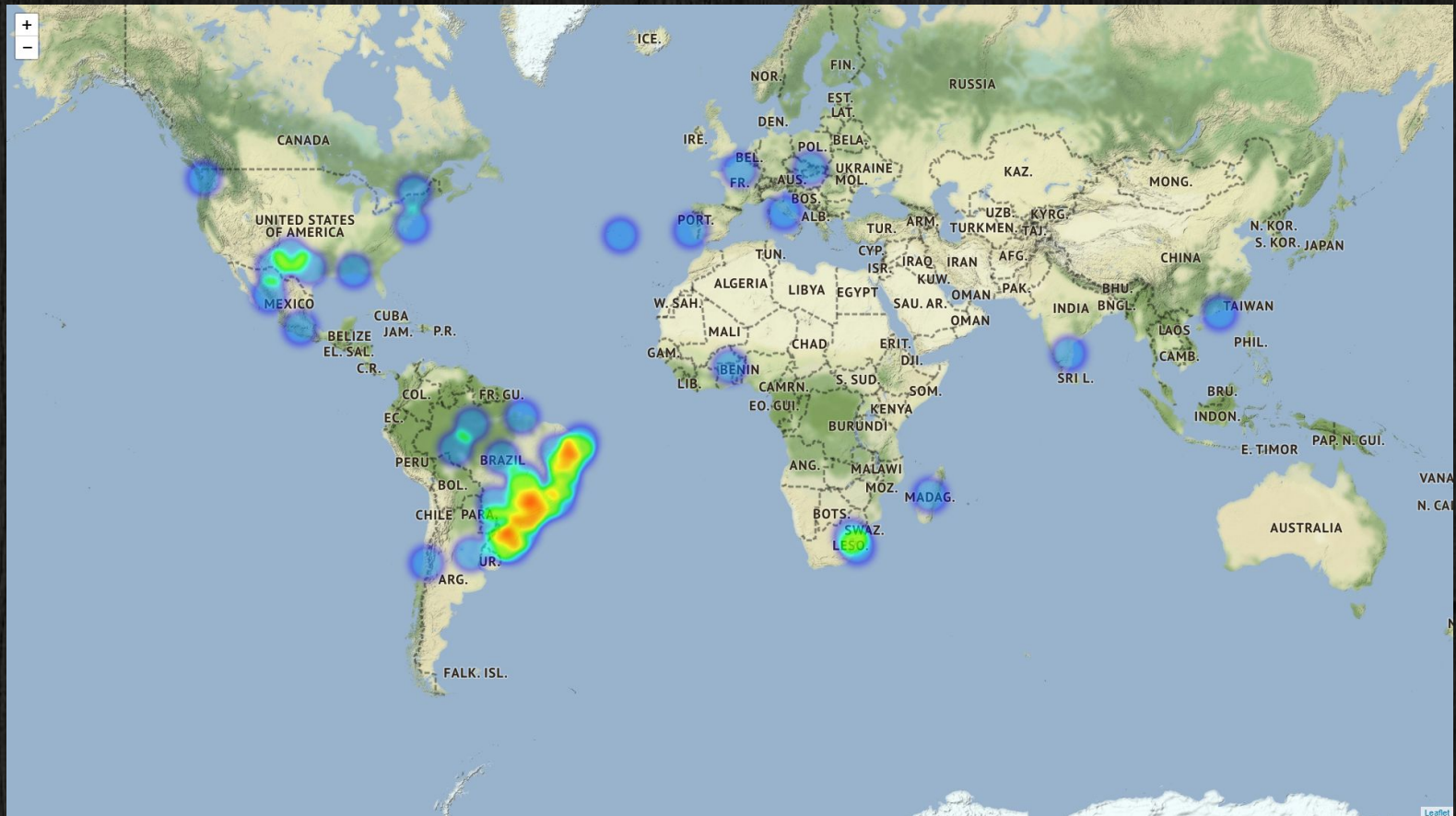
28/10/2018 20:00 BRT

Choropleth map

Bolsonaro

	count	max	mean	min
AC	1	0	0	0
AL	10	0.433333	0.0241667	-0.125
AP	0	0	0	0
AM	19	1	0.180263	-0.2
BA	58	0.5	0.042665	-1
CE	35	0.953333	0.0790238	-0.4
DF	43	1	0.0424154	-0.6
ES	32	1	0.0728385	-1
GO	27	1	0.0862875	-0.8
MA	24	1	0.00825216	-0.6
MT	201	1	0.0517628	-1
MS	12	0.466667	0.118862	-0.164062
MG	119	0.9	0.0697856	-0.8
PR	71	0.875	0.144539	-0.5
PB	13	1	0.109118	-0.5625
PA	28	0.8	0.105891	-0.8
PE	57	1	0.0585709	-0.607292
PI	5	0.8	0.12	-0.2
RN	20	1	0.013836	-0.529167
RS	59	0.8	-0.00481235	-1
RJ	233	1	0.0649297	-1
RO	5	0.199594	0.0415855	-0.1
RR	1	0	0	0
SC	44	1	0.160511	-0.8
SE	13	0.8	0.0266026	-0.4
SP	300	1	0.062114	-1
TO	3	0.136364	0.0787879	0
Exterior	698	1	0.0805059	-1
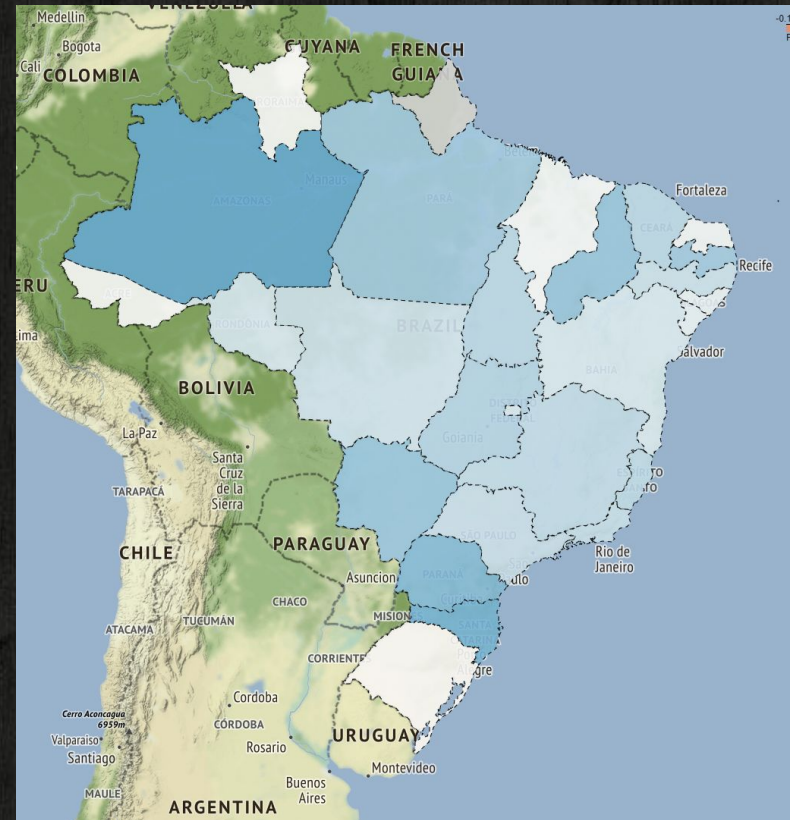
28/10/2018 09:00 BRT

Choropleth map

Bolsonaro

	count	max	mean	min
AC	5	0.8	0.1675	0
AL	7	0.5875	0.0400974	-0.5
AP	2	0.7	0.25	-0.2
AM	15	0.8	0.186558	0
BA	20	1	0.102798	-0.4
CE	20	0.8	0.0999621	-0.6
DF	34	0.5	0.0621771	-0.3125
ES	33	0.5	0.0315242	-0.66276
GO	34	0.8	-0.00672852	-1
MA	10	0.5	0.0230114	-0.25
MT	96	1	0.0254142	-1
MS	5	0.0222222	-0.0955556	-0.5
MG	128	0.8	0.0369227	-1
PR	69	1	0.0615829	-1
PB	10	0.25	0.0125	-0.125
PA	18	0.8	0.0641655	-1
PE	41	0.8	0.11005	-0.4
PI	6	1	0.250397	-0.0833333
RN	16	0.8	0.141667	-0.4
RS	125	1	0.00418082	-0.9
RJ	282	1	0.0222982	-1
RO	11	0.5	5.04647e-18	-0.6
RR	6	0.342857	0.0446429	-0.1
SC	56	1	0.0357175	-1
SE	3	0	-0.00333333	-0.01
SP	218	1	0.0555679	-1
TO	5	1	0.307273	0
Exterior	939	1	0.056617	-1

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Choropleth map

Haddad

	count	max	mean	min
AC	4	0.5	0.165625	0
AL	6	0.25	-0.0541667	-0.25
AP	6	0.5	0.105208	-0.075
AM	29	0.9	0.00502874	-0.8
BA	55	0.925	0.106802	-1
CE	40	1	0.120077	-0.5
DF	45	0.75	0.0831282	-0.5
ES	36	1	0.106372	-0.6
GO	31	0.8	0.0869048	-0.5
MA	27	0.875	0.172434	-0.55
MT	177	1	0.0782487	-1
MS	9	0.75	0.280556	-0.1
MG	136	1	0.111188	-0.8
PR	53	0.7	0.106474	-1
PB	17	1	0.16313	-0.1
PA	27	0.8	0.0866623	-0.714286
PE	85	1	0.164127	-0.75
PI	15	0.75	0.027619	-0.5
RN	22	0.85	0.243479	-0.5
RS	92	1	0.105256	-1
RJ	224	1	0.0482036	-1
RO	7	0.492857	-0.215306	-1
RR	4	0.05	0.0125	0
SC	38	0.85	0.0850721	-0.6
SE	8	0.5	0	-1
SP	315	1	0.0886601	-1
TO	6	0.1875	-0.05	-0.3
Exterior	558	1	0.100731	-1
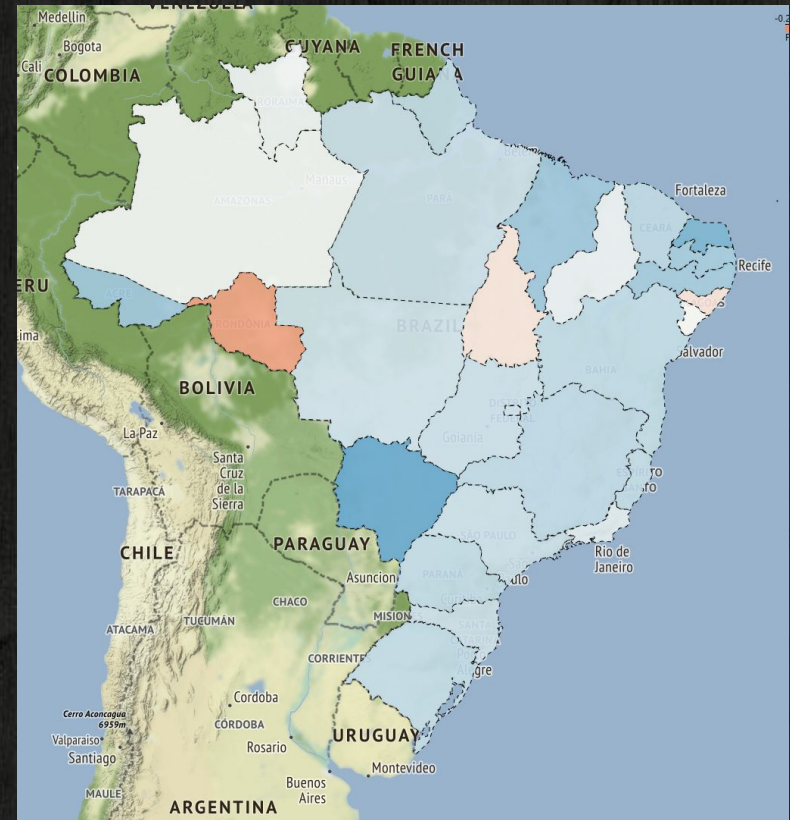
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Choropleth map

Haddad

	count	max	mean	min
AC	3	0.1	0.0333333	0
AL	11	0.5	0.122297	-0.6
AP	5	1	0.327273	0
AM	13	1	-0.0329545	-0.6
BA	57	0.8	0.0588462	-0.9
CE	34	1	0.0886029	-0.5
DF	47	0.9	0.112373	-1
ES	33	1	0.021158	-0.6
GO	32	0.6	0.0215732	-0.8
MA	21	1	0.159921	-0.466667
MT	200	1	0.0594762	-1
MS	22	0.5	-0.0346681	-0.7
MG	120	1	0.00586735	-0.714286
PR	82	0.8	0.0456716	-0.7
PB	21	0.5	0.000992063	-0.6
PA	31	0.55	-0.0193548	-0.75
PE	52	0.7	0.0524444	-0.7
PI	11	0.58	0.0701515	-0.166667
RN	12	0.5	0.0666667	0
RS	99	1	0.0224213	-1
RJ	221	1	0.0483724	-1
RO	9	0.8	0.00960648	-0.651042
RR	2	0.5	0.25	0
SC	73	0.8	-0.00396033	-0.8
SE	10	0.5	0.0795313	0
SP	362	1	0.046055	-1
TO	6	0.8	0.1375	0
Exterior	483	1	0.0321382	-1

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Choropleth map (extra)

Bolsonaro

	count	max	mean	min
AC	1	0	0	0
AL	2	0	-0.4	-0.8
AP	0	0	0	0
AM	4	0.5	0.161111	0
BA	18	0.6	-0.0642196	-0.8
CE	15	0.525	-0.0318316	-0.566667
DF	18	0.5	0.0648148	-0.2
ES	5	0.6	0.133333	-0.266667
GO	10	0.675	0.0610714	-0.5
MA	6	0.35	-0.0583333	-0.7
MT	95	1	0.0797227	-1
MS	7	0.0777778	0.018254	0
MG	54	0.9	0.0386893	-0.714286
PR	24	1	0.0420646	-0.6
PB	10	0.5	0.110937	-0.390625
PA	11	1	0.17914	-0.714286
PE	21	0.91	0.190483	-0.361905
PI	3	0.375	-0.00833333	-0.6
RN	5	0	-0.06	-0.3
RS	24	0.625	0.0375836	-0.8
RJ	79	1	0.00677212	-1
RO	2	0.7	0.35	0
RR	0	0	0	0
SC	13	0.565625	0.163931	-0.1
SE	5	0.357143	0.0714286	0
SP	104	0.8	0.0624893	-0.7
TO	0	0	0	0
Exterior	173	1	0.0276677	-1

27/10/2018 10:00 BRT

Thanks!

Any questions?

You can find us at:

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Repository

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memegenerator.net