

Supplementary material for Rauchfleisch et al., “How COVID-19 displaced climate change: Mediated climate change activism and issue attention in the Swiss media and online sphere”, *Environmental Communication*, 2021

Appendix 1

Search terms for data

Media

Climate change:

“(*klima* OR "clima*") AND NOT ("arbeitsklima*" OR "klimaanlage" OR "climatisation" OR "klima der angst" OR "climat social" OR "clima natalizio" OR "clima di festa" OR "clima di cambiamento" OR "clima di rinnovamento")”

COVID-19:

“("corona*" OR "*COVID*") AND NOT ("coronan*" OR "coronat*" OR "alla corona" OR "sulla corona" OR "nella corona" OR "della corona" OR "dalla corona" OR "la corona" OR "coronarien*" OR "coronaire*" OR "koronar*" OR "coronar*" OR "coronado*" OR "coronament*" OR "corona events" OR "fabrizio corona" OR "mauro corona" OR "sacra corona" OR "corona di fiori" OR "corona di spine" OR "corona di alloro" OR "corona reale" OR ("corona" AND "porto"))”

Twitter

Our Twitter listener tracks 296,553 validated users in Switzerland. These users (128,820 active users) wrote 92.7 million tweets between 1. April 2019 and 31. October 2020. 26,289 of these users at least tweeted once about climate change and 63,622 about COVID-19.

Climate change:

“global warming OR climate change OR klimawandel OR cambiamento climatico OR changement climatique OR fridaysforfuture OR climatechange OR climatestrike OR gretathunberg OR climatejustice OR savetheplanet OR climatecrisis OR extinctionrebellion OR globalwarming OR climateaction OR climateemergency OR klimastreik OR actonclimate OR klimaschutz OR cop25 OR klimakrise”

COVID-19:

“corona OR COVID OR sars OR epidemie OR pandemie OR épidémie OR epidemia OR epidemic OR pandémie OR pandemia OR pandemic OR stayathome OR stayhome OR flattenthecurve OR socialdistancing OR 2019ncov OR restezchevous OR lockdown OR iorestoa casa OR wirbleibenzuhause OR wuhan”

Appendix 2

Brexit analysis

For Brexit as an issue, we used exactly the same approach and data sources that we used in the paper for both of our hypotheses. We identified 231,902 tweets and 12,234 news stories. Our model estimates a substantial effect (posterior tail-area probability $p=.0012$) of the COVID-19 crisis on the news media attention about Brexit of 70% ($SD=13\%$), which translates into 23 articles fewer on average per day than before February 2020 or as cumulative absolute effect into 6,326 ($SD=1183.2$) articles less overall (see Figure below). For Twitter we identified a substantial effect (posterior tail-area probability $p=.0011$) as well with on average 65% ($SD=12\%$) less tweets, which translates into 348 ($SD=65$) fewer tweets on average per day than before February 2020 (see Figure 2).

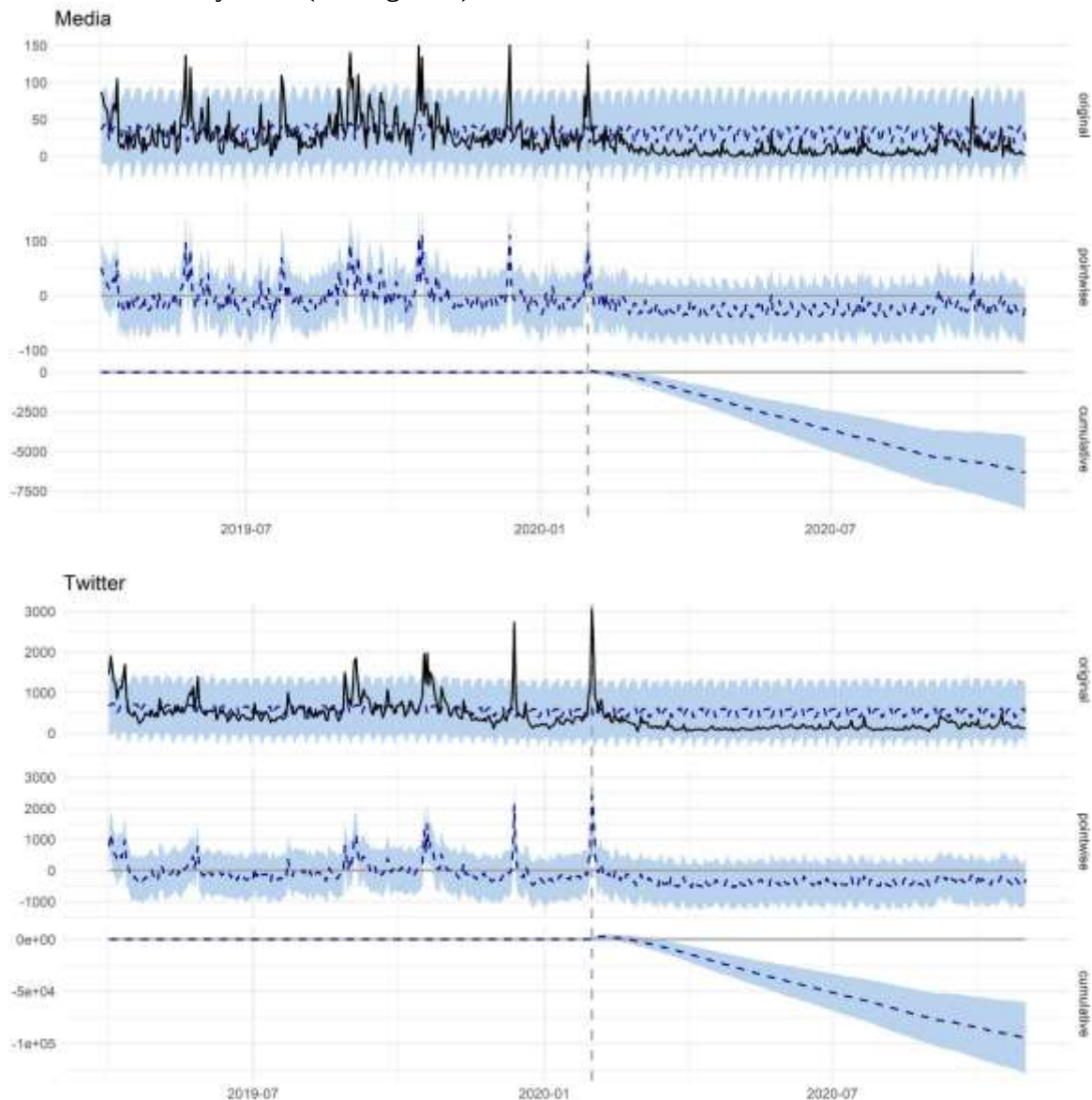


Figure: Top media attention Brexit; bottom Twitter attention Brexit. Dashed vertical line indicates the beginning of the COVID-19 crisis. original: daily articles in the Swiss press/tweets in the Swiss Twitter sphere about Brexit. The dotted line shows the predicted counterfactual time series for daily articles/tweets. Pointwise: difference between observed data and counterfactual predictions - centered around 0 which indicates the average daily volume before the start of the crisis. cumulative: cumulative effect of the COVID-19 crisis.

Appendix 3

Climate change hashtags 2019

Clusters numbers are different from the cluster numbers of 2020. In the visualization we tried to use similar colours for 2019 and 2020 if the same hashtags appeared in a cluster.

hashtag	absolute frequency	cluster
#climatechange	29406	4
#fridaysforfuture	25770	1
#climatestrike	15294	1
#climateaction	14756	4
#klimaschutz	12017	3
#klimawandel	11996	3
#cop25	10390	4
#klimastreik	7740	1
#klimakrise	7715	3
#climateemergency	7252	4
#gretathunberg	6781	1
#extinctionrebellion	6615	1
#climatecrisis	6572	4
#climate	4737	2
#actonclimate	3367	2

#schoolstrike4climate	2962	1
#co2	2876	3
#klima	2511	3
#greennewdeal	2373	2
#climatejustice	2212	4
#globalwarming	2137	4
#energy	2031	2
#energiewende	1788	3
#scientists4future	1787	1
#climateactionnow	1724	4
#environment	1724	4
#wahlch19	1628	3
#sdgs	1616	4
#greta	1599	1
#klimademo	1560	1
#actnow	1503	4
#klimanotstand	1503	3
#sustainability	1463	4
#es2050	1343	3

#ipcc	1339	4
#climateactions summit	1307	4
#globalclimatestrike	1268	1
#climat	1264	4
#fff	1238	1
#cop25madrid	1235	4
#unga	1216	4
#parentsforfuture	1179	1
#parisagreement	1162	4
#klimawahl2019	1041	3
#globalgoals	1035	4
#biodiversity	975	4
#schweiz	973	3
#solar	970	2
#climatebreakdown	935	4
#renewableenergy	917	2
#fridaysforfuture	916	1
#timeforaction	911	4
#gletscherinitiative	889	3

#fridays4future	888	1
#fridayforfuture	859	1
#science	836	3
#innovation	793	2
#esistzeit	777	3
#cdnpoli	765	2
#afd	743	3
#go100re	738	2
#klimawahl	728	3
#wahlench19	728	3
#nature	655	4
#allefsklima	646	1
#humanrights	637	4
#climatechangeisreal	622	4
#klimahysterie	614	3
#bern	610	1
#srccl	610	4
#renewables	590	2
#switzerland	588	4

#naturebasedsolutions	586	4
#panelsnotpipelines	584	2
#klimapaket	562	3
#cdu	560	3
#allefuersklima	551	1
#tech	546	2
#savetheplanet	543	4
#klimapolitik	540	3
#gre	538	3
#umweltschutz	536	3
#abst19	525	3
#auspol	520	4
#svp	519	3
#health	514	4
#wissenschaft	511	3
#airpollution	508	4
#lausanne	506	1
#srfarena	506	3
#ai	504	4

#kernenergie	489	3
#fossilfree	472	4
#endegelaende	469	1
#klimakatastrophe	466	3
#zich	463	4
#europawahl2019	459	1
#berlin	456	1
#umwelt	456	3
#nuclear	455	4

Climate change hashtags 2020

Clusters numbers are different from the cluster numbers of 2019. In the visualization we tried to use similar colours for 2019 and 2020 if the same hashtags appeared in a cluster.

hashtag	absolute frequency	cluster
#climatechange	21963	6
#climateaction	8083	6
#fridaysforfuture	7057	3
#klimakrise	6771	3
#climatecrisis	6616	6
#klimawandel	5843	3
#klimaschutz	5395	3

#climateemergency	4535	6
#COVID19	3839	6
#actonclimate	3158	2
#climatestrike	2826	3
#climate	2684	2
#klimastreik	2450	3
#coronavirus	1705	6
#extinctionrebellion	1629	6
#gretathunberg	1573	5
#riseupforchange	1518	3
#sustainability	1501	6
#wef20	1475	5
#climatejustice	1405	3
#globalwarming	1360	6
#climatestrikeonline	1332	3
#energy	1306	2
#greennewdeal	1295	2
#facetheclimateemergency	1222	3
#schoolstrike4climate	1214	3

#co2	1152	3
#corona	1059	3
#co2gesetz	1041	3
#sdgs	965	6
#klima	962	3
#environment	926	6
#energiewende	890	3
#climateactionnow	874	6
#solar	824	2
#biodiversity	823	6
#cop26	752	6
#renewableenergy	692	6
#earthday	668	6
#srfarena	635	3
#coronakrise	614	3
#renewables	594	2
#davos	550	5
#wef2020	542	5
#fff	535	3

#schweiz	533	3
#rogerwakeupnow	524	4
#COVID_19	509	3
#auspol	504	6
#umweltschutz	500	1
#humanrights	495	6
#svp	494	1
#keepitintheground	492	2
#actnow	481	6
#nature	478	6
#es2050	473	3
#innovation	470	6
#go100re	460	2
#cleanenergy	453	2
#lausanne	442	3
#globalgoals	441	6
#ai	434	6
#keingradweiter	426	3
#tech	425	2

#flattenthecurve	422	3
#davos2020	420	5
##köppel	418	1
#savetheplanet	411	6
#swiss	402	7
#heidisaysenough	399	6
#climat	396	6
#naturschutz	393	1
#covid—19	382	3
#discreditsuisse	378	4
#chvote	377	1
#eugreenddeal	374	6
#sustainable	369	6
#parisagreement	366	6
#jsvp	365	1
#abgabegarantie	360	1
#abnahmegarantie	360	1
#endreinigung	360	1
#umzugsreinigung	360	1

#nobailoutwithoutchange	356	7
#fighteverycrisis	353	3
#ipcc	344	6
#digitalstrike	340	3
#cop25	339	6
#australia	334	6
#earthday2020	325	6
#netzero	325	6
#buildbackbetter	324	6
#machinelearning	322	6
#klimagerechtigkeit	314	3
#science	313	3
#greta	309	5
#arctic	308	6
#savepeoplenotplanes	300	7
#energytransition	294	6
#howtosavetheplanet	292	5
