

# APPENDIX

TABLE IV: Keywords used to classify posts into their respective topic and sentiment. When querying for hashtag usage, only keywords without spaces were used. When classifying posts, all keywords as well as phrases derived from the keywords were used. For example, the keyword “secondlockdown” can be further broken down to “second lockdown”. Keywords gathered were manually found, from our own dataset or selected from related works of [44], [45], [46], [47], [48], [49] and [50]. Keywords were used in both positive and negative context.

Topic	Sentiment	Keywords
Lockdown	Neutral	quarantine, secondlockdown, lockdownDC, californialockdown, 2ndLockdown, Lockdown3, lockdowns, coronavirusshutdown, covidlockdown, covidshutdown, shutdowns, coronaviruslockdown, lock down, Wuhanlockdown, lockdownextension, home-quarantine, lockdownTrump
	Positive	Stayhome, StayHomeStaySafe, lockdownlife, StayHomeSaveLives, nationallockdown, TogetherAtHome, Prolockdown, Proshutdown, LockdownWorks, AvoidGatherings, stay home challenge, safe at home, stay at home, stay home, sheltering in place, quarantine life, 14DayQuarantine, inmyquarantinesurvivalkit, quarantine shelter, shelteringinplace, stay home challenge, stayathome, stay_home_safe, stayhometosavelives, workfromhome, stayhome!, saferathome, safe at home
	Negative	endthelockdown, endlockdowns, NoShutdown, NoMoreLockdown, NoMoreShutdown, ReopenAmerica, OpenAmericaNow , Antilockdown, LockdownsKill, Breakthelockdown, LockdownsAreNotACure, nolockdown2, BreakTheLockdowns, Lockdown-Chaos, LockdownsDontWork, StopTheLockdowns, LockdownFraud, Bidenlockdown, NoMoreLockdowns, CancelTheLockdown, freetheUSA2020, NoLockdowns, NoLockdown, Antishutdown, Anti shutdown, endtheshutdown
Mask	Neutral	mask, masks, facemask, facemasks, ppe, n95, kn95, CoronavirusMask, surgicalmasks, clothmasks, n95facemask, kn95facemask, facecover, cloth mask, ffp2mask, ffp3mask, ffp3, ffp1, ffp2, kn95 mask, n95 mask, surgical mask, faceshield
	Positive	masksSaveLives, wearamask, maskup, wearadammask, MaskYourKids, MaskMandates, WearMaskProtectLife, Wear a mask protect a life, WearAMaskSaveALife, maskon, Doublemasking, Doublemask, MaskOnAmerica, MaskSelfie, MasksWork, MaskWorks, mandatorymask, GetMePPE, masks4all, wear face mask, CoronavirusCoverup
	Negative	maskdontWork, Nomasks, Nomask, MasksOff, MaskOff, antimasker, antimaskers, NoMaskMandate, Nomoremasks, Un-MaskAmerica, Maskless, IWillNotWearAMask, SheepNoMore, unmask, MaskOffAmerica, Talesoftheunmaskedpatriot, take-offtheface, maskburning, Burnyourmask, Burnyourmaskchallenge, nomaskonme, nomaskselfie, maskhoax, nomaskEVER, facefreedom, masksmakemesweaty, MasksAreDangerous, TakeMaskOff, Stopforcingmaskonme, takeoffyourmask, refusemask, NeverMasker, StopWearingMask, StopWearingtheDamnMasks, MasksdontMatter, stopmasking, stopthestupidmask, maskingchildrenischildabuse, MomsAgainstMasks, MasksRUnhealthy, SheepWearMasks, MasksAreForSheep, RefuseToWearMasks, MasksAreMurderingMe, maskshoax, TakeOffTheMask
Vaccine	Neutral	vaccination, vaccines, CovidVaccine, Covid19Vaccine, Astrazeneca, Moderna, Modernavaccine, Pfizer, Pfizervaccine, PfizerBioNTech, BioNTech, Covaxin, Coronavaccine, SputnikV, CoronaVac, PfizerBioNTech, Operationwarp-speed, Warpspeed, CovidVaccination, Vaccinating, CoronavirusVaccines, Covishield, Astrazenecavaccine, Janssen, Janssen-vaccine, JohnsonandJohnson, JohnsonandJohnsonvaccine, immunization, SputnikV Vaccine, Coronavaccine, SinovacVaccine, Sinovac , Herdimmunity
	Positive	VaccinesSaveLives, ThisIsOurShot, Vaccinated, getvaccinated, BidenVaccine, Trumpvaccine, VaccinesWork, VaccinationWorks, TakeYourShot, BestShot, vaccinationdone, CovidVaccineFacts, SecondDose, GetYourShot, VaxUp, VaccineSelfie, CrushCOVID, MyCOVIDVax, IGotTheShot, VaccinesAreSafe, vaccine against coronavirus
	Negative	NoVaccine, MedicalFreedom, Medical freedom, AstrazenecaKills, Astrazeneca kills, AntiVaccine, AntiVacc, AntiVaxx, KnowtheRisk, BewaretheNeedle, FuckAstrazeneca, FuckPfizer, PfizerKills, FuckModerna, ModernaKills, FuckJohnsonandJohnson, JohnsonandJohnsonkills, Deathbyvaccine, VaccinesKill, NeverVaccine, SayNoToVaccines, hydroxychloroquine, saynobill-gatesvaccine
Misc.	Neutral	SARSCoV2, Pandemic, COVID19, Covid_19, COVID, COVIDSecondWave, CovidCases, Covid19usa, Covidusa, COVID20, CovidReliefBill, COVIDReliefBill, COVIDRelief, COVID Relief, StimulusChecks, COVIDReliefPackage, 2000StimulusCheck, Virus, Regeneron, DrFauci, Secondwave, longcovid, covid19pandemic, CDCgov, FDA, GlobalPandemic, CovidVariants, coronaviruspandemic, Sars-cov-2, corona, coronavirusoutbreak, 2019ncov, COVID-19, coronavirus, CoronavirusUpdate, CoronaOutbreak, CDC, Epidemic, corona virus, covd, coronavirusimpact, covid19 epidemic, covid19 pandemic, covid19update, covidlife, covidresearch, koronavirus, outbreak, pandemic2020, sars-cov-2 virus, centre for disease control, covidiot, covidots
	Positive	FlattenTheCurve, StopTheSpread, crushthevirus, BidenWillCrushCovid, StopCOVID19, FauciHero, COVIDWise, Protectyourself, Protectothers, GetTested, BreakTheChain, washyourhands, fightagainstcorona, Socialdistancing, Social Distancing, Social Distancing Now, Dont be a spreader, don't touch your face, fightagainstcorona, fightagainstcoronavirus, fightcoronatogether, fightcovid19, fighttogether, slow the spread of covid19, standtogether, treat coronavirus, wehealalone, uniteagainstcovid19, togetherwecan, togetherwecandoit
	Negative	Scamdemic, Scamdemic2020, ScamdemicIsOver, Shamdemic, electioninfection, Covidhoax, ConstitutionOverCoronavirus, chinesevirus, chinavirus, Plandemic, Fakepandemic, TrumpPandemic, TrumpCovid, TrumpCovid19, Controlavirus, Covid1984, TrumpCovidHoax, GreatReset, TheGreatReset, CCPVIRUS, TrumpVirus, TrumpVirus2020, wuhanvirus, WuhanFlu, corona-hoax, AmyCovidBarrett, TrumpVirusCatastrophe, SuperSpreaderEvents, TyphoidTrump, WhatCOVID, TrumpPlague, Omnibus-CovidReliefBill, WHOHoax, FakeCovid19, KongFlu, Kungflu, Wuhan coronavirus, Trump pandemic, coronapocalypse, china virus, coronials, dr. fraud fauci