

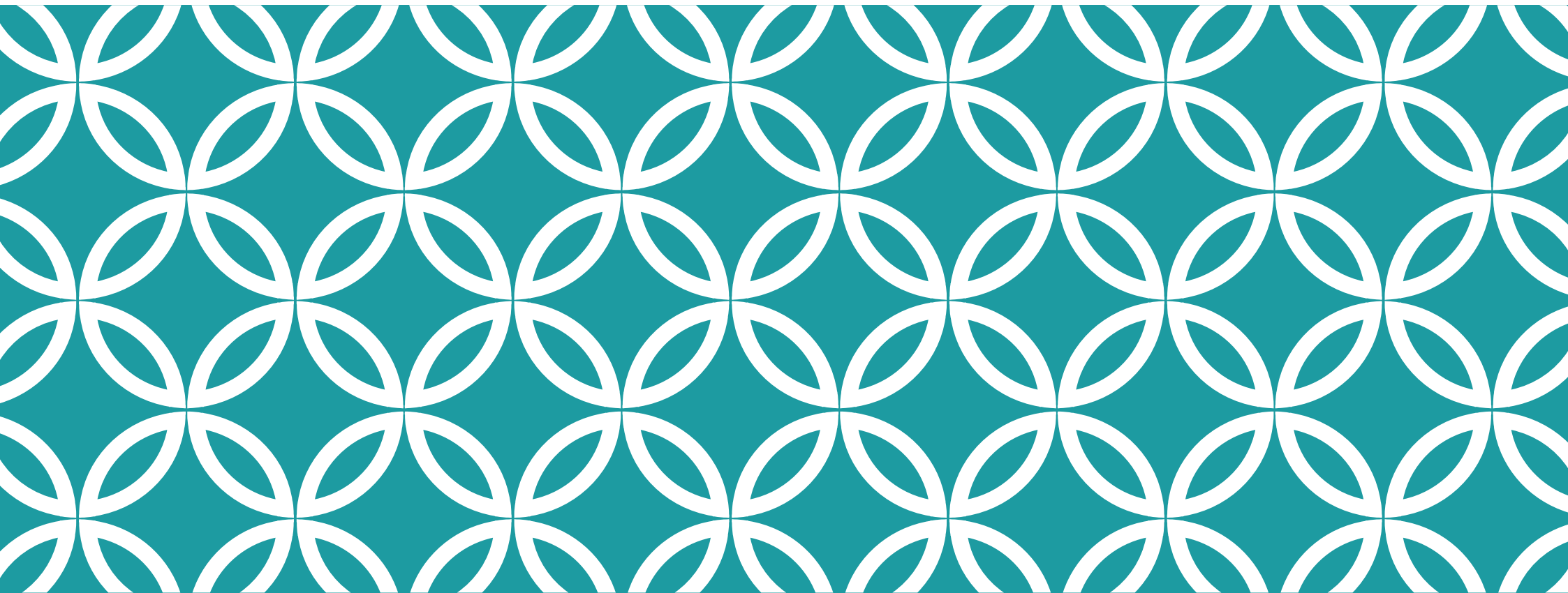


HOW TO ANALYZE THE DISCUSSION ON ANIMALWELFARE ON TWITTER*?

* Through Nitter

OUTLINE

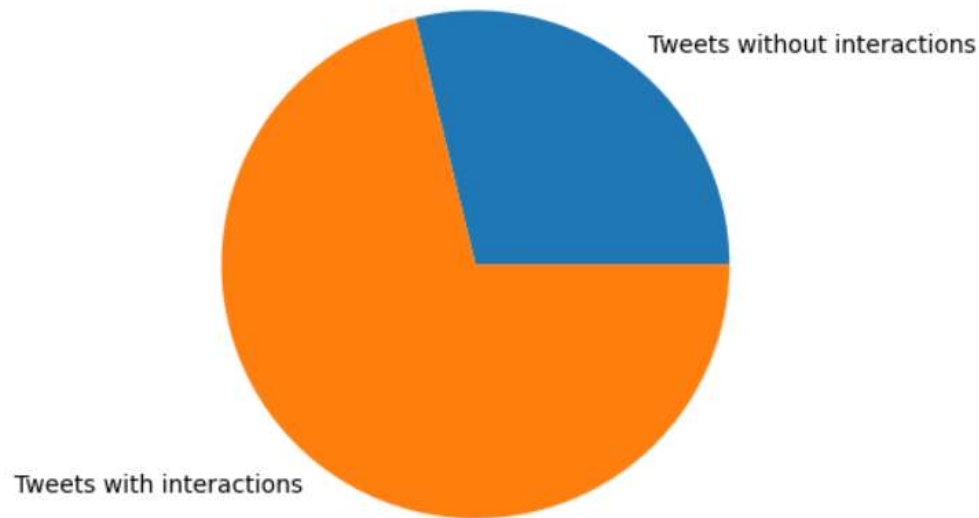
1. How powerful is the #animalwelfare hashtag?
2. Who twittered #animalwelfare?



HOW POWERFUL IS THE #ANIMALWELARE HASHTAG?

On October 4th was the world animalwelfare day. Tweets with the hashtag #animalwelfare were scraped from twitter for a time period from 1st of October 2023 to 17th of December 2023 and analyzed.

TWEETS (#ANIMALWELFARE) SINCE OCTOBER 2023



Keyword	Num. of tweets co-mentioning
china	43
trade	38
dog	524
cat	447
farming	93

4'170 tweets (tweeted between 1st of October to 17th of December) were downloaded based on the hastag #animalwelfare.

EVEN IF AN ADDITIONAL HASHTAG IS USED TOPICS ARE VERY DIVERSE -> #CHINA

#China rescues over
thousand #cats
destined to be sold as
#pork

China's***
#AnimalWelfare on
the whole.....

naughty panda, upside
down on the ground,
teong panda at
teongqing zoo in china.
#AnimalWelfare #pets
#Zoo

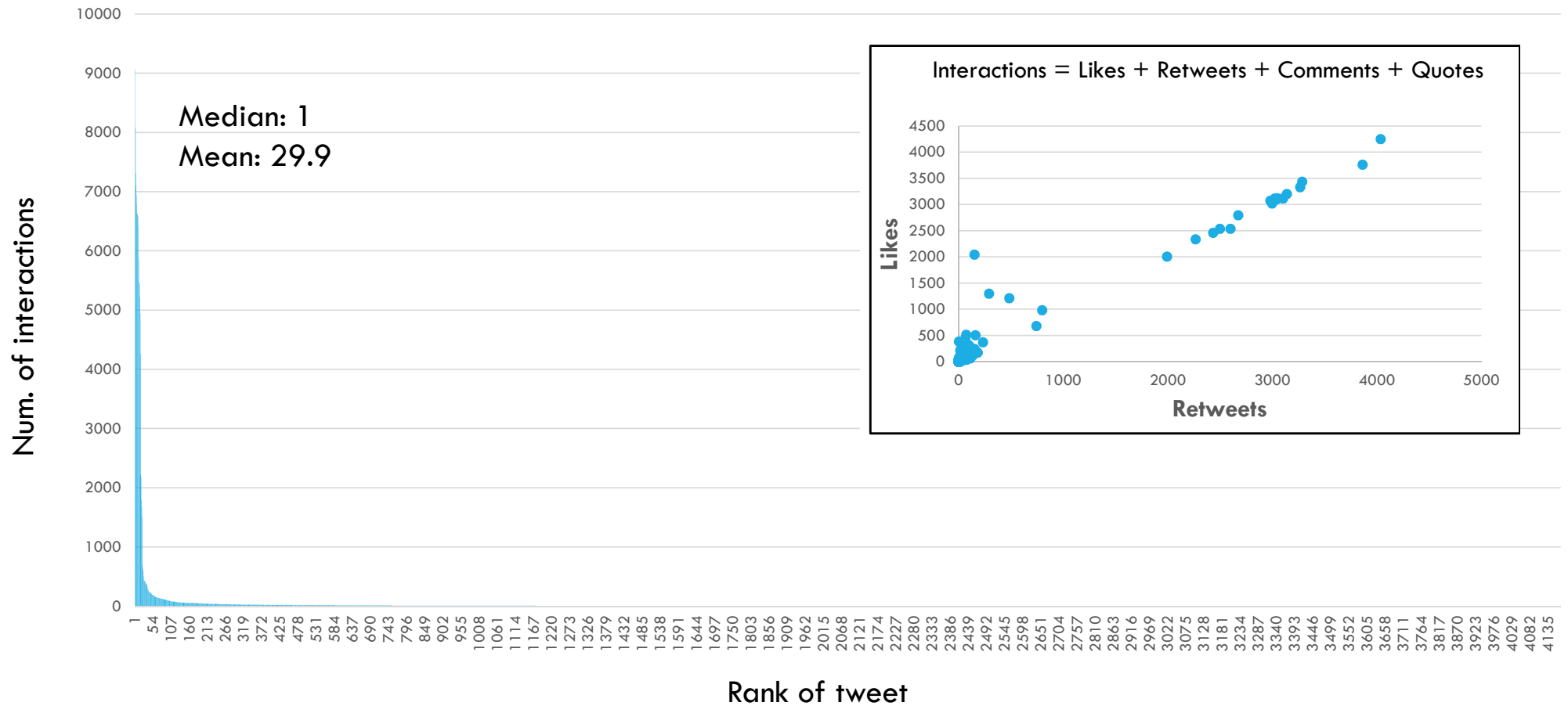
World's first chimera monkey
created by Chinese scientists in stem
cell breakthrough #AnimalTesting
#Vivisection #AnimalRights
#AnimalWelfare #China
#AnimalCruelty #Monkeys
#Wildlife

A really important and
useful overview of
#animalwelfare science
in China

@PhaedraXTeddy
@aricchen
@ECOAlphaTango
@wlim66561343
@Jura_Harris
@catabuserschina
@pets_zz
@donnylalah
@paulrspca
@AW_TheJournal
@Act4AnimalsEU
@AMCELL
@baston28
@PerfectMisty
@worldtailsinc
@MaryamSTK
@mamipooJapan
@HKatrin2831
@SaraShangr61569
@HainanToday
@greenthems
@tiplo66
@GingerellaRN
@StopEatingDogs_
@jw_karma
@englishpardafas
@MahiraA67566583
@happyveg1986
@ChimieMal
@62MileClub
@don_chan0
@veganrick
@Jenniferb5801
@DaryoEng
@LynBern96289618
@nikki_plummer

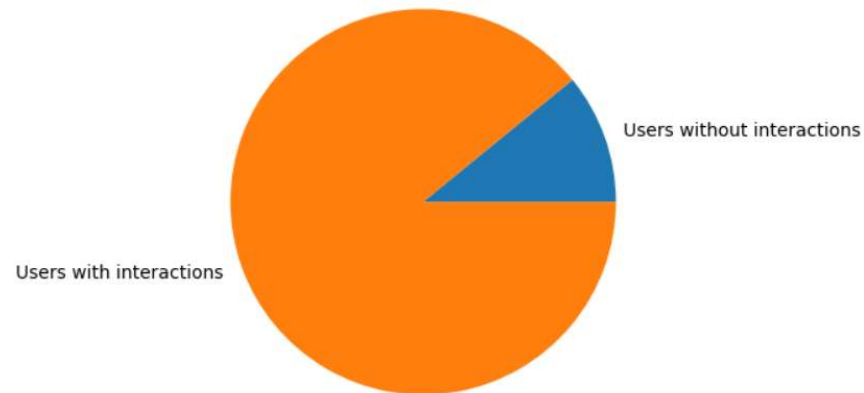
TWEETS HIGHLY VARIED IN POPULARITY

Interactions tweets received

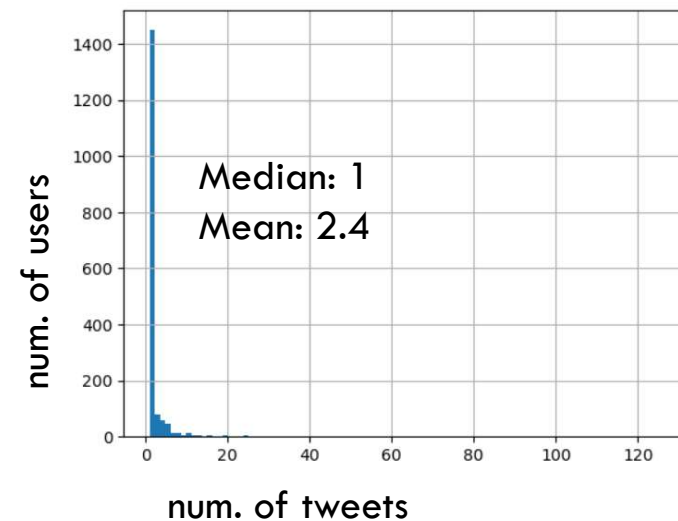


HOW MANY USER TWEETED #ANIMALWELFARE

#animalwelfare tweets were tweeted
by 1648 accounts in total:



Frequency with which accounts
tweeted #animalwelfare:



Of the ~1600 tweeters around ~1400 used #animalwelfare only in one tweet.

USERS HIGHLY VARIED IN POPULARITY ON #ANIMALWELFARE

Top 10 user accounts with most interactions on
#animalwelfare:

username	total_interactions
@Act4AnimalsEU	1218
@fourpawsint	1348
@BearyHappy04	1520
@marcthevet	1720
@DeborahKeenan12	2212
@AnimalsAsia	2606
@ProtectWldlife	2619
@TheViditsharma	4945
@DSSNewsUpdates	37979
@GreenSwelfares	71386

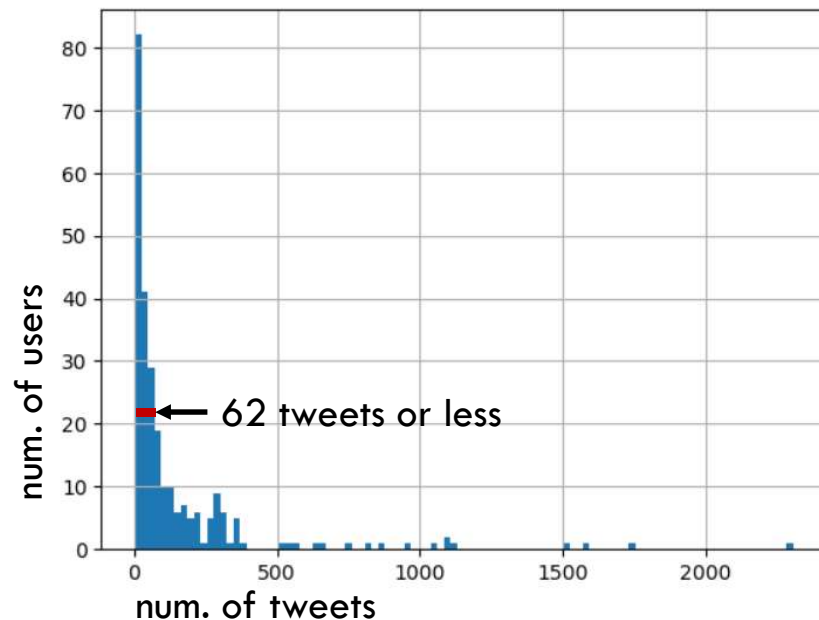
Rest of top 34 user accounts with most interactions on
#animalwelfare:

..., @natalieben (1'101), @LadyFreethinker (801),
@PhaedraXTeddy (648), @DublinSPCA (601), @donnylalah
(552), @drcrystalheath (544), @Protect_Wldlife (506),
@ETSUJapan (437), @miss_bawa7 (433), @PixelmateLtd (388),
@ProtectHarvest (376), @MADRADogRescue (371),
@TargetHumanity (370), @DogDeskAction (325), @tawf_uk
(324), @insa431 (303), @catlowry54 (268),
@FOURPAWSeurope (266), @Perrin_Cam (263),
@EuropeElects (241)), @aricchen (234), @ColeTheBlackCat
(228), @Good_vibes_up (228), @WOAH_MiddleEast (223)

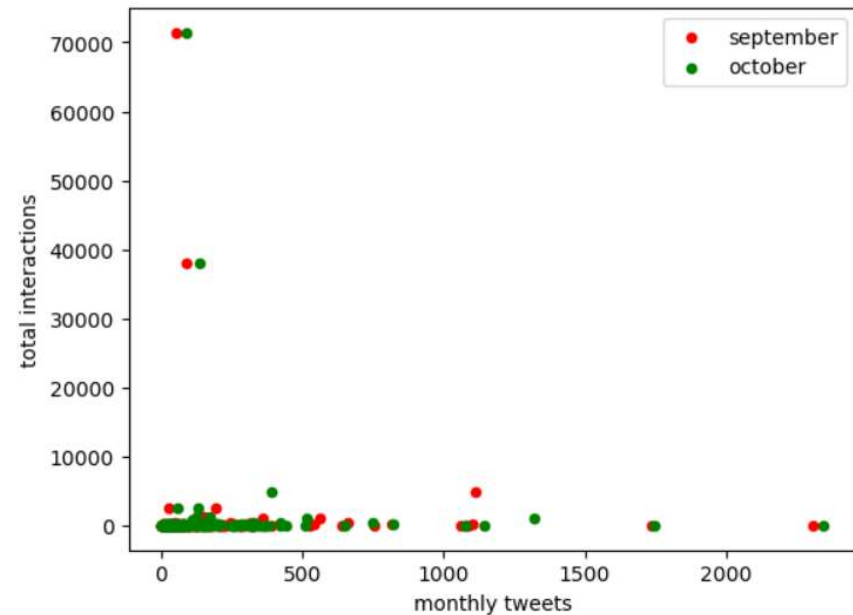
A few accounts received thousands of interactions – many of which belong to animal protection organisations.
400 accounts received 98% of the interactions on #animalwelfare; **30 accounts received 87% of interactions.**

HOW OFTEN DID THE USERS TWEET IN TOTAL IN A GIVEN MONTH?

Top 400 user accounts with most interactions on #animalwelfare tweeting frequency in September:



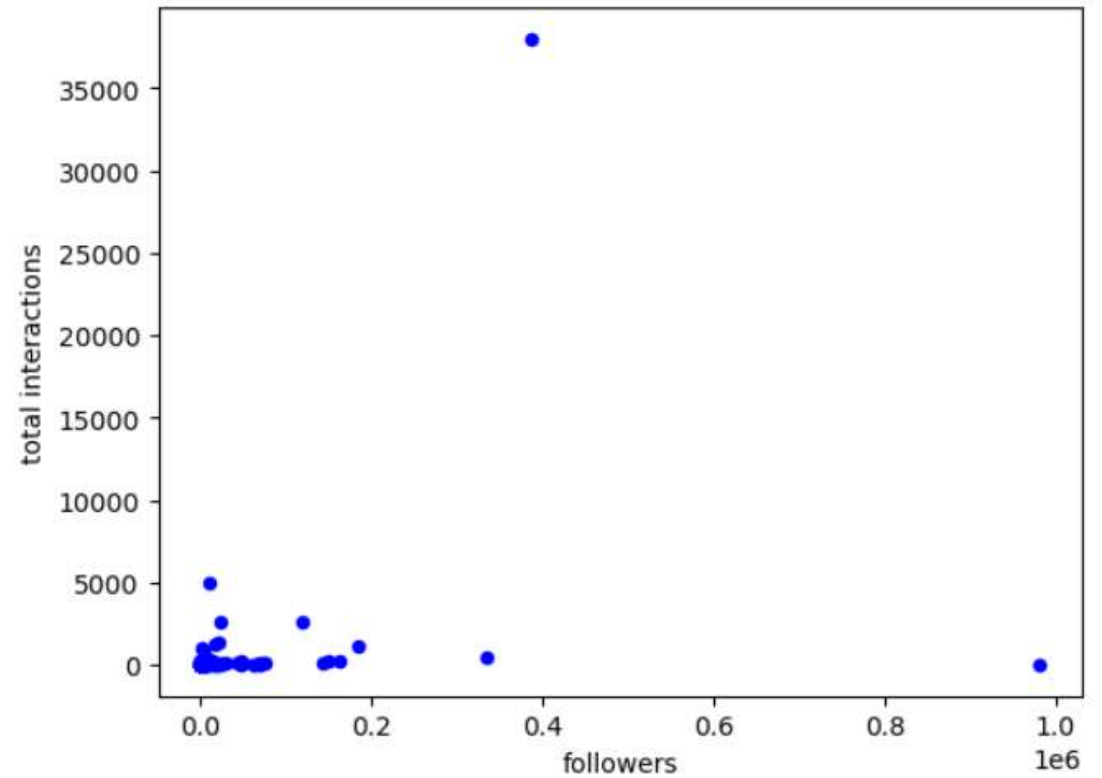
Trying to correlate overall tweeting activity with received interactions on #animalwelfare

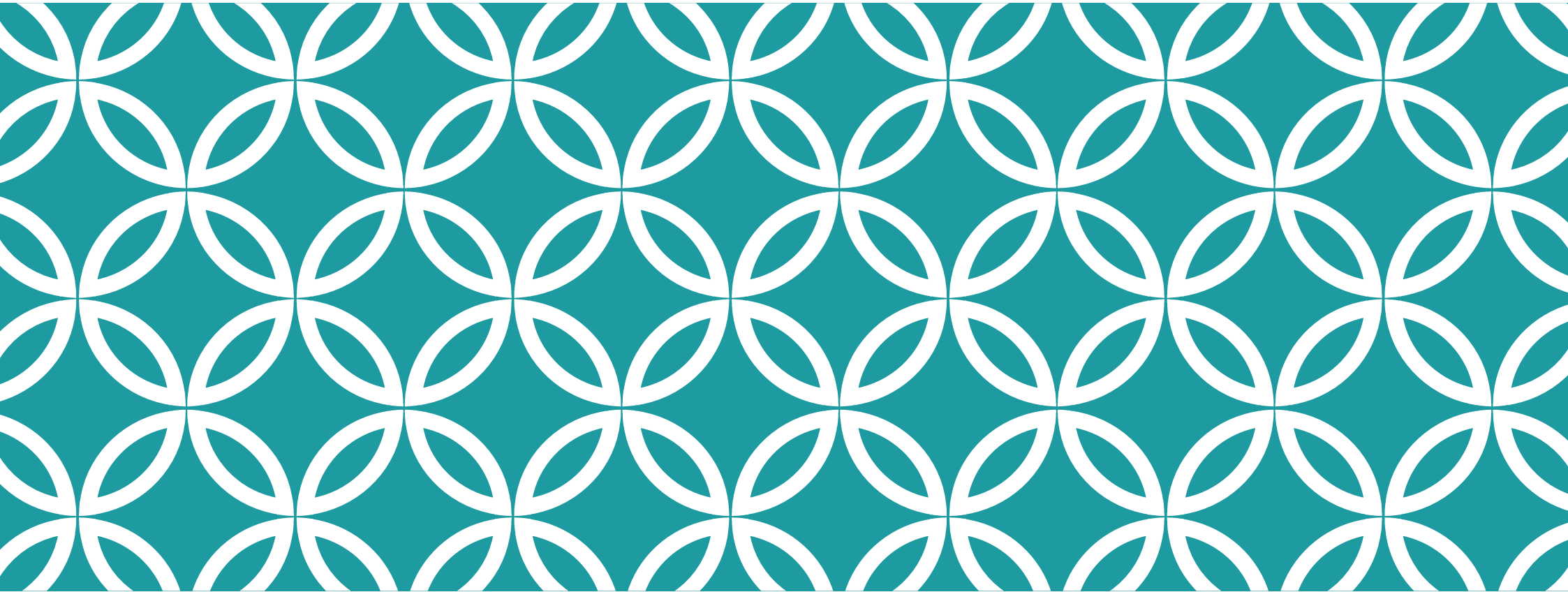


Impact of tweets did not correlate with the overall tweeting frequency of accounts.

INTERACTIONS DID NOT CORRELATE WITH THE NUMBER OF FOLLOWERS EITHER

username	total_interactions	september_tweets	october_tweets	followers
@LoveOfAnimals_	223	59	210	NaN
@WOAH_MiddleEast	223	26	40	1287.0
@ColeTheBlackCat	228	74	76	149038.0
@EuropeElects	241	299	296	161998.0
@GentleNon	260	29	41	3052.0
@aricchen	277	1101	200	46374.0
@tawf_uk	324	243	421	2897.0
@DogDeskAction	325	662	751	8436.0
@ProtectHarvest	378	315	329	8532.0
@Protect_Wldlife	506	48	165	333721.0
@Jura_Harris	812	150	109	3519.0
@rena1q	1036	360	1321	1858.0
@natalieben	1101	559	517	184739.0
@Act4AnimalsEU	1218	140	173	15988.0
@fourpawsint	1348	153	123	20870.0
@AnimalsAsia	2606	28	58	119686.0
@ProtectWldlife	2619	194	131	24404.0
@TheViditsharma	4945	1115	391	9991.0
@DSSNewsUpdates	37979	89	135	386673.0
@GreenSwelfares	71386	50	87	NaN





**WHO TWITTERED
#ANIMALWELFARE?**

Bios of top 11 users with most interactions

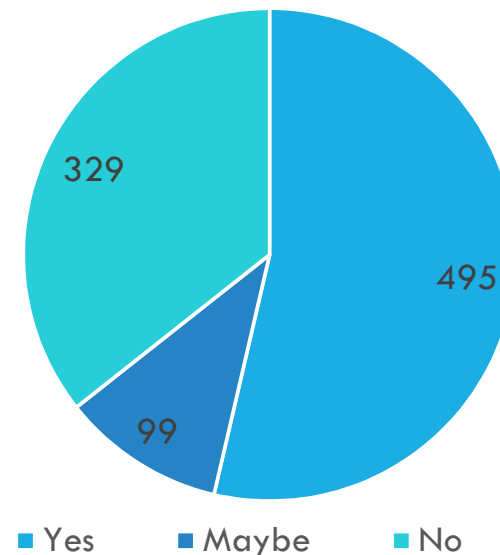
Username	Tweets on #animalwelfare	Num. Interactions	Ratio Int./Tweet	Direct Focus	Account Description
@GreenSwelfares	12	71'386	5'948.8	Maybe	Shah Satnam Ji Green 'S' Welfare Force Wing undertaking 160 welfare activities under the guidance of Revered Saint Dr. Gurmeet Ram Rahim Singh Ji Insan.
@DSSNewsUpdates	5	37'979	7'595.8	No	A socio-spiritual organization serving humanity worldwide with 160 noble initiatives under guidance of Spiritual Master St. Dr. @GurmeetRamRahim Singh Ji Insan.
@TheViditsharma	43	4'945	115.0	Yes	Dog Person, Serving happiness to street bound Animals , Founder @Saveastray2 and @Sharnamnoida
@ProtectWldlife	2	2'619	1'309.5	Yes	Proud Patron of @MiriMission (Charity No: 1166106), a non-profit charity dedicated to the rescue, rehabilitation and rehoming of disabled animals.
@AnimalsAsia	4	2'606	651.5	Yes	Animals Asia has rescued over 670 bears to our three sanctuaries and is working with the Vietnam government to #endbearbilefarming and rescue the last bears 🐻
@DeborahKeenan12 (has a new account)	1	2'212	2'212.0	Yes	love animals and music.
@marcthevet	19	1'720	90.5	Yes	multi award winning vet, author, campaigner, @pupaid , @APDAWG1 , #LucysLaw, #BanPuppyImports, #wheresmum, #BeMoreMosquito, #BHAFC fan. Agent @KnightAyton
@BearyHappy04	2	1'520	760.0	Yes	Proud rescue dog owner, NHS worker, Strong Animal Advocate & runner 🐾🐾 All views are my own...
@fourpawsint	40	1'348	33.7	Yes	Animal Welfare. Worldwide.
@Act4AnimalsEU	41	1'218	29.7	Yes	Umbrella NGO Building a Europe that values and respects animals as sentient beings 90+ #animalwelfare charities lobbying EU institutions as one Join us!
@natalieben	4	1'101	275.3	Yes	Green Party peer. Leader 2012-16. Sheffield Green Party member. Promoted by Chris Williams on behalf of the Green Party, both at PO Box 78066, London SE16 9GQ.

WHO TWITTERED #ANIMALWELFARE? A MANUAL ANNOTATION

Of the 1648 users who tweeted #animalwelfare, 923 had at least 2 interactions or more. Of those 923 accounts, around **53% can be considered to focus on animalwelfare.**

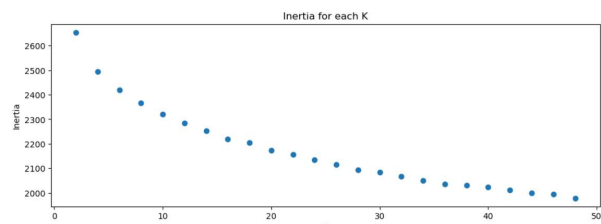
These included many accounts reporting the savement of cows from traffic in India in ordinary daily instances. This also included one pharmacy company (Merck) and one cosmetic company (Marbelline). Moreover, sadly, these included 5 accounts of zoophiles. **Overall, some hashtag-inflation can be noticed for #animalwelfare.**

Account with solid focus to animalwelfare?

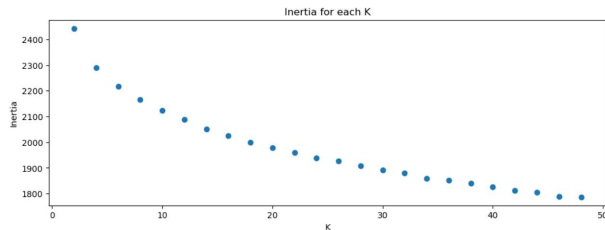


K-means clustering of tweets based on BERT from Sentence-Transformers to automatically distinguish users

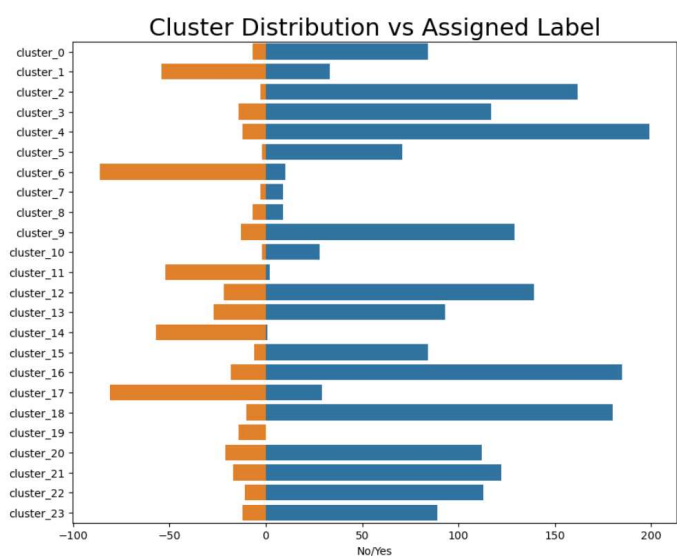
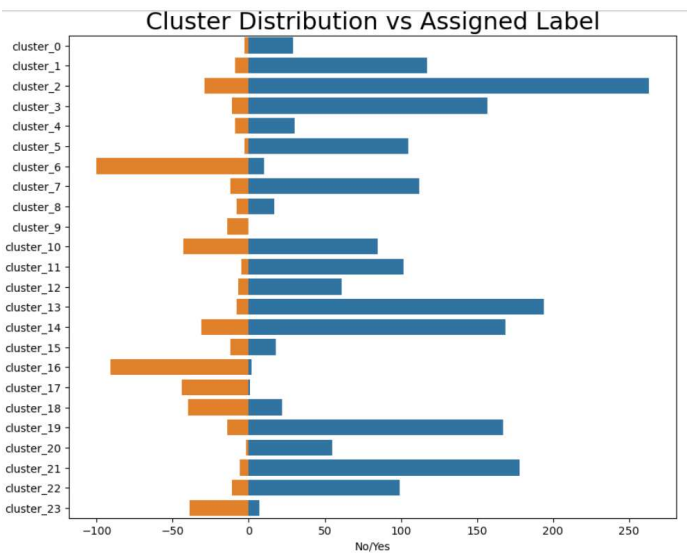
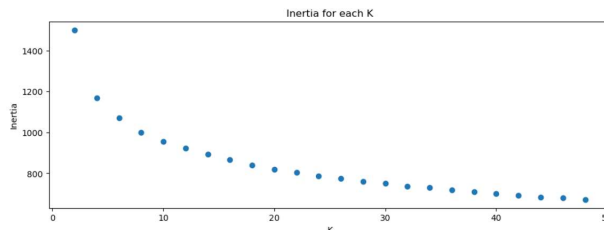
,all-MiniLM-L6-v2 ‘
Clusters: 24



,all-mpnet-base-v2‘
Clusters: 24



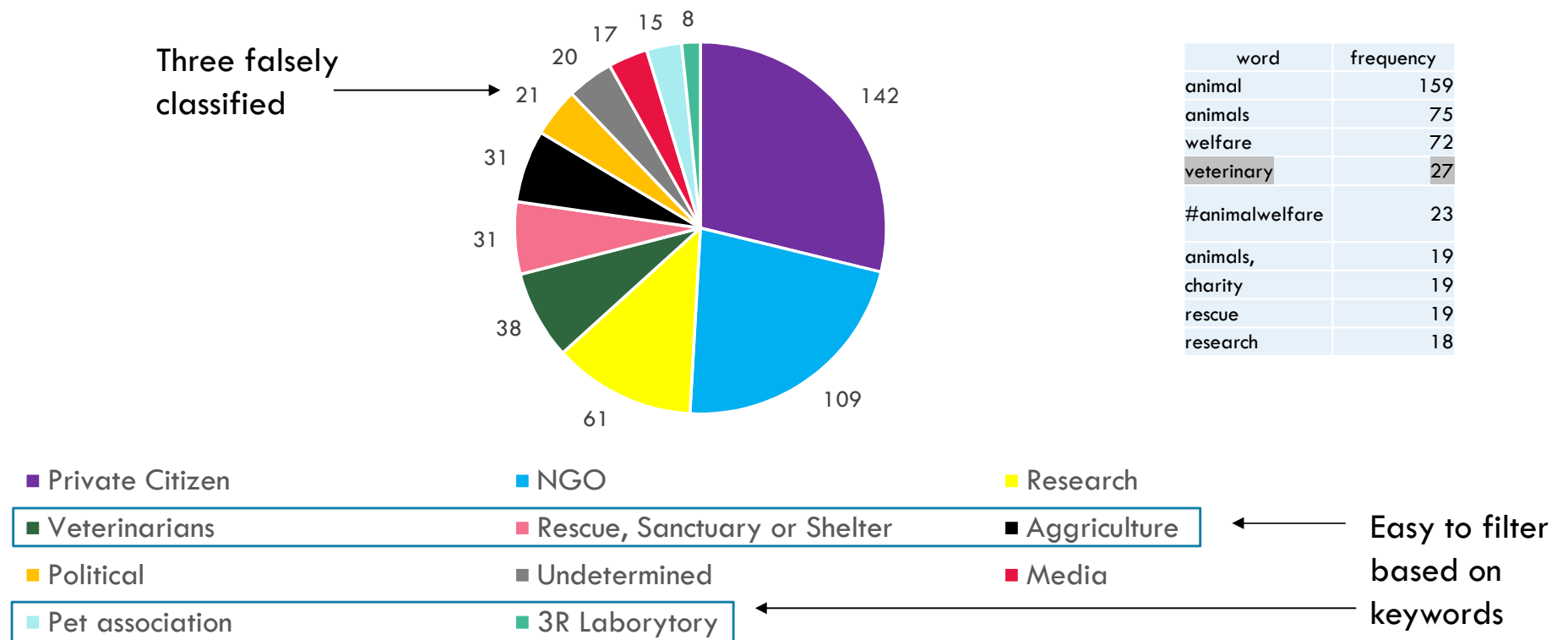
,navidmadani/mpnet-twitter-freq100‘
Clusters: 24



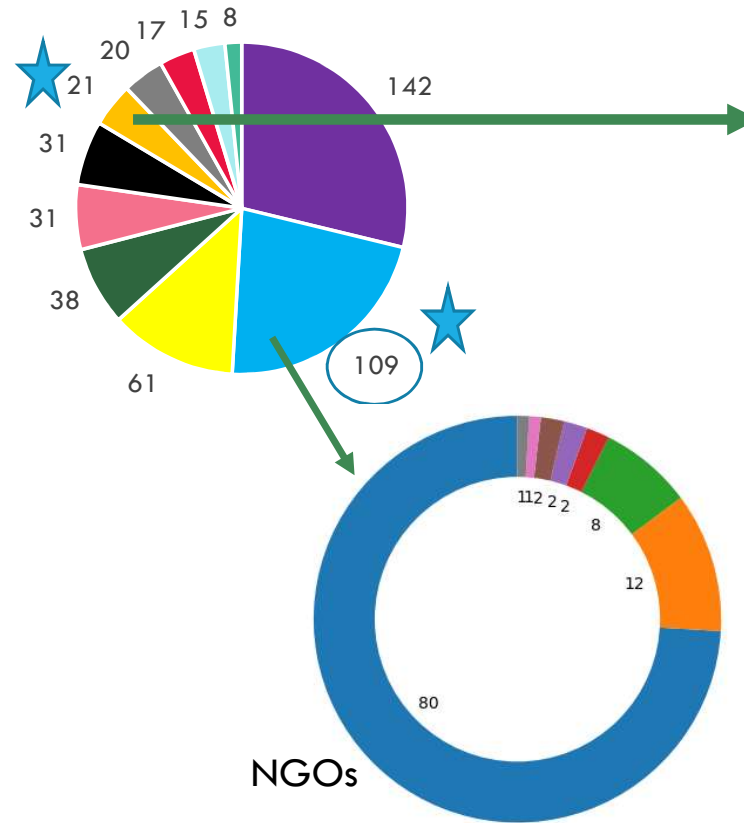
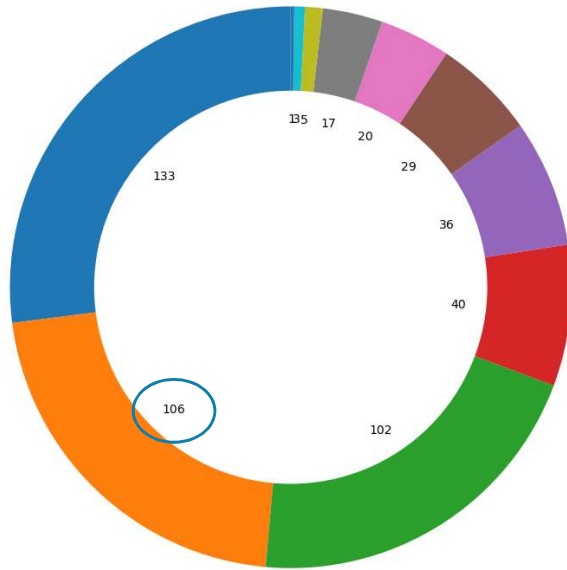
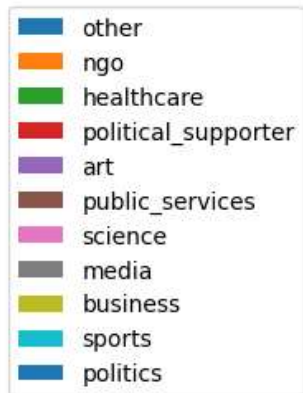
Sources:
<https://towardsdatascience.com/what-people-write-about-climate-twitter-data-clustering-in-python-2fbdb2b95906>
https://www.sbert.net/docs/pretrained_models.html

MANUAL CLASSIFICATION OF SELECTED ACCOUNTS

The 495 selected accounts belonged to:



CAN CLASSIFICATION BE AUTOMATED BASED ON PRE-TRAINED BERT-BI-LSTM?



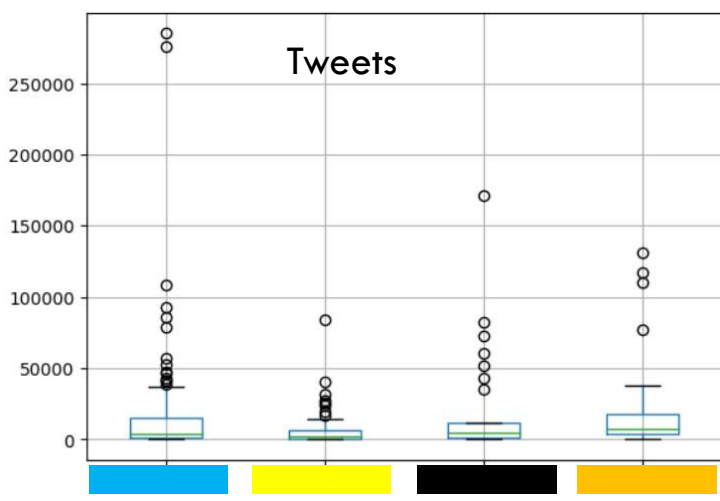
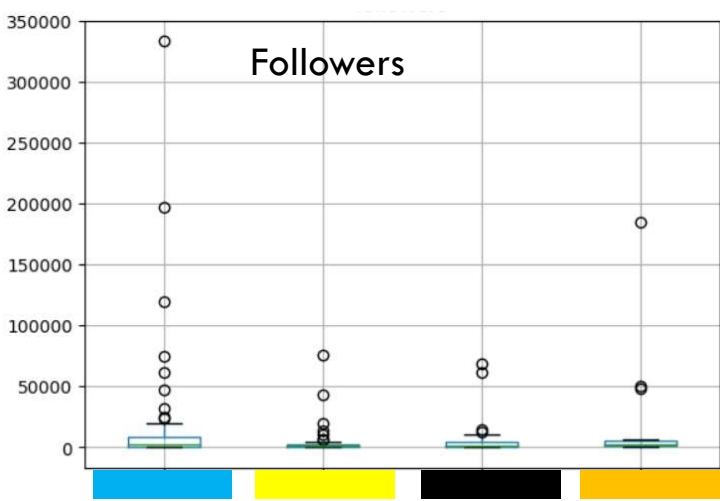
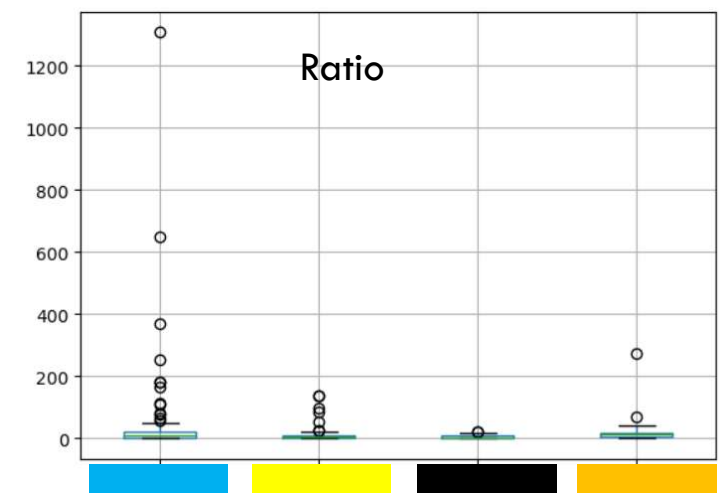
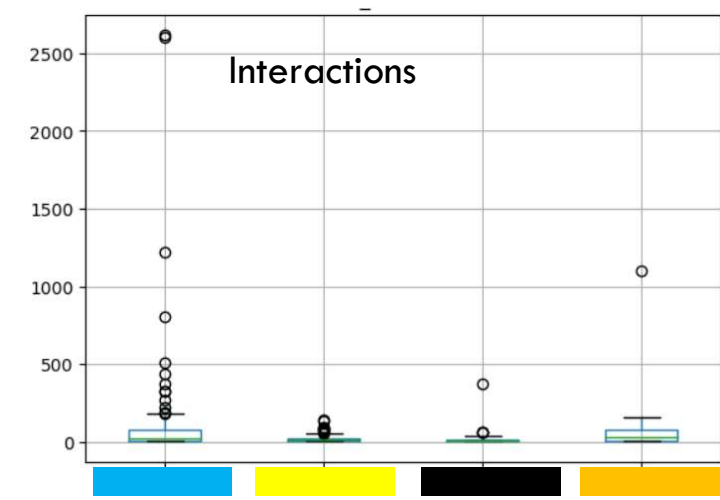
	username	label
0	OIGUSDA	politics
1	eurcaw_re	science
2	AnimalWelfareE	politics
3	eucapnetwork	media
4	OECDwatch	ngo
5	DirkJacobsEU	media
6	VicGovAg	other
7	AnimalLawEurope	science
8	Gilly_SSPCA	ngo
9	Olga_CIWF	ngo
10	AWintergroup	politics
11	EmmaCalvert3	politics
12	EFSA_EU	public_services
13	MetzTilly	politics
14	ErinMcGreehan	politics
15	au_jbar	ngo
16	SKyriakidesEU	politics
17	TanDhesi	politics
18	VeraJourova	other
19	andreajenkyns	politics
20	natalieben	politics

Source: <https://arxiv.org/abs/2008.08364> ; <https://github.com/digitalepidemiologylab/experts-covid19-twitter>

OVERVIEW OF TOP 20 NGO'S

username	Total interactions	Followers	Following	Region
@ProtectWldlife	2'619	24'435	1'420	Global
@AnimalsAsia	2'606	119'708	54'391	ASIA
@Act4AnimalsEU	1'218	15'982	2'253	EU
@LadyFreethinker	801	14'400	1'651	Global (USA)
@Protect_Wldlife	506	333'678	165'278	Global (UK)
@ETSUJapan	437	91	93	ASIA
@DogDeskAction	325	8'442	1'291	UK
@tawf_uk	324	2'943	961	UK
@FOURPAWSeurope	266	2'780	653	EU
@WOAH_MiddleEast	223	1'289	45	Middle East
@Justice4TLS	198	455	322	Global (UK)
@NamiKim_DogsSK	185	15'596	11'556	ASIA
@FOURPAWSUSA	183	8'833	2'770	USA
@1Pepsy	181	13'205	12'761	Global (UK)
@WildWelfare	176	1'903	1'069	Global
@AnimalsAngelsUS	166	2'773	288	USA
@AWAction_News	160	5'594	8'859	USA
@PetaIndia	153	169'041	402	ASIA
@FOURPAWSSA	149	2'463	784	USA
@UFAW_1926	134	4'678	1'120	Global

Comparing „NGO“, „Research“, „Agricultural“ and „Political“



109

NGO

61

Research

31

Agricultural

21

Political

Description of users classified as „Political“ -> three misclassifications were removed

username	Followers	Following	Total interactions	#aw	Identity
@natalieben	184'740	144'694	1'101	4	Green Party peer.
@TanDhesi	102'690	8'810	166	2	@UKLabour MP for #Slough. Shadow Minister for Exports.
@andreajenkyns	75'624	3'524	138	1	Dame Andrea Marie Jenkyns DBE (born 16 June 1974) is a British politician serving as Deputy Chairwoman of the European Research Group (ERG) since 2019.
@MetzTilly	5'647	2'436	114	6	Member @Europarl_EN, @GreensEfa - Chair DCAM, VP @EP_PublicHealth, member of ENVI, COVI, TRAN & AGRI, Chair of @AWIntergroup
@VeraJourova	74'549	410	113	1	Vice-President for Values and Transparency at the @EU_Commission.
@EFSA_EU	48'156	331	76	5	European Food Safety Authority - Science, safe food, sustainability Data protection
@au_ibar	2'472	1'053	76	3	The African Union – InterAfrican Bureau for Animal Resources (AU-IBAR) provides leadership in the development of #AnimalResources for #Africa.
@AWintergroup	3'238	853	49	5	The #AnimalWelfare Intergroup is the focal point for animal protection & conservation issues in the European Parliament. Tweets by Secretary.
@SKyriakidesEU	61'883	3'021	40	1	European Commissioner for Health and Food Safety.
@eurcaw_re	77	11	30	23	EURCAW Ruminants & Equines is the third European Union Reference Centre for Animal Welfare designated by the European Commission (designated 6 May 2021)
@eucapnetwork	2'435	2'506	26	8	The European Commission set up the EU CAP Network in line with the Regulation of the European Parliament and of the Council to support CAP strategic plans (CSPs).
@EmmaCalvert3	1'133	1'576	23	2	Senior Food Policy Officer, European Consumer Organisation (@BEUC) Working on food, glorious food.
@ErinMcGreehan	3'203	3'395	20	1	Erin McGreehan Senator , Ireland
@VicGovAg	9'773	2'227	6	1	Representing agriculture, biosecurity, regulation and compliance within the Department of Energy, Environment and Climate Action, Australia
@AnimalLawEurope	929	1	6	1	The European Institute for Animal Law & Policy
@DirkJacobsEU	2'428	1'384	5	1	Director General @FoodDrinkEU in the Brussels bubble.
@OIGUSDA	3'297	157	4	4	Committed to providing independent oversight to promote effectiveness and integrity in USDA programs and operations.
@AnimalWelfareIE	1'686	1'980	3	1	Ireland's Only Official Registered Political Party For Animals.

HOW DOES CONTENT GENERATION COMPARE FOR A FEW SELECTED ACCOUNTS

	@AWIntergroup	@MetzTilly
Tweets (>2020)	552	2'215
Mean Likes	7.8	13.8
Median Likes	5	6
Maximum Likes	320	1'044
Tweets without #	186 (33.7%)	811 (36.6%)
Freq. #animalwelfare	103	70
Freq. @eu_commission	37	154

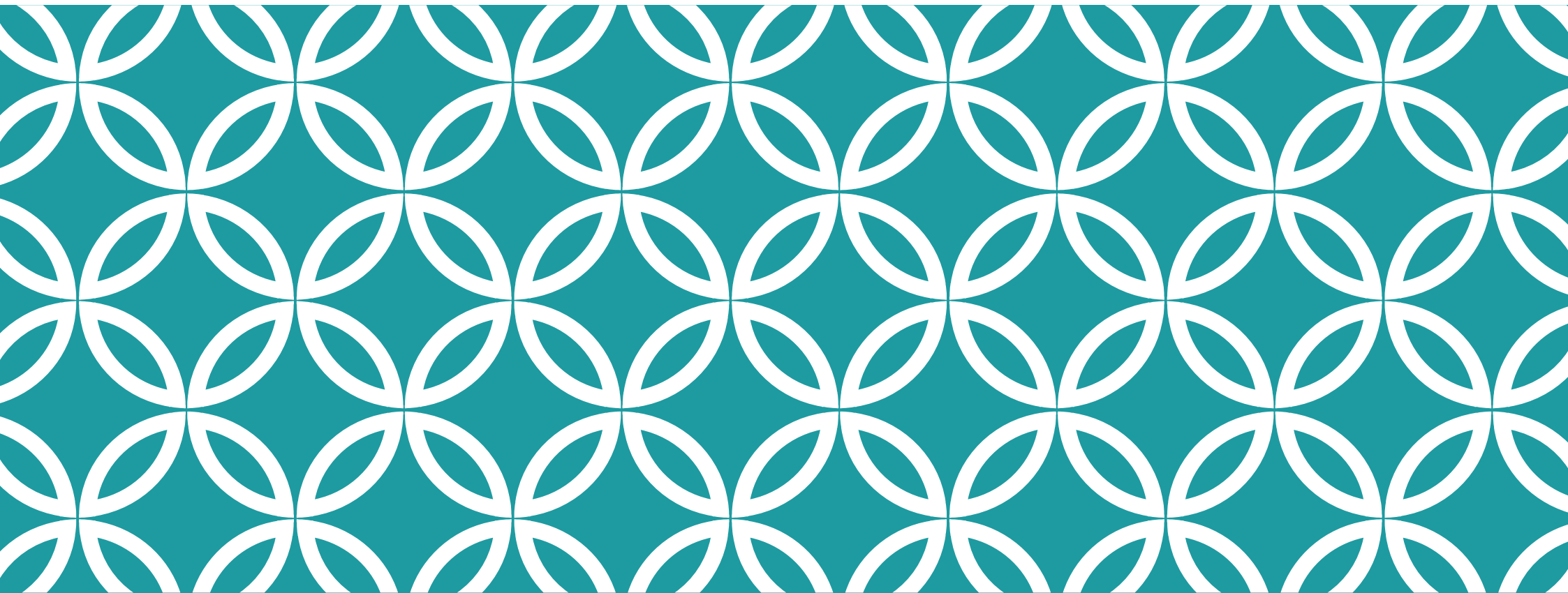
username	Type	Region	Tweets	Likes	Joined Twitter
@Act4AnimalsEU	NGO	EU	16'286	12'300	2011
@LadyFreethinker	NGO	Global (USA)	3'076	1'6841	2013
@ProtectWldlife	NGO	Global (UK)	42'595	13'687	2011
@AWIntergroup	Political	EU	2'831	1'761	2013
@MetzTilly	Political	EU	3'459	13'824	2019
@charles_finny	Lobbyist	Oceania	48'900	4'331	2013

doing the Math....

12	1357.2
10	307.6
12	3549.6
10	283.1
4	864.8
10	4890

MAIN FINDINGS

- Despite animalwelfare-day, only ~4000 tweets were extracted with the hashtag #animalwelfare (from Nitter)
- Distribution of interactions with tweets (likes, retweets etc) was highly skewed
- Number of followers, tweets, or tweeting frequency are poor predictors if a user receives many interactions on a #animalwelfare tweet
- Politicians tended to receive above average interactions on #animalwelfare tweets
- While many NGOs were among the highest receivers of, quite a few NGOs underperformed on receiving interactions on #animalwelfare
- Some hashtag-inflation exists for #animalwelfare
- #animalwelfare seems to be a rather weak predictor to fish out profiles of political-decision makers -> further filtering is necessary
- Automatic annotation of accounts is currently not fully possible, curated lists seem advisable
 - For NGOs and Politicians automated methods yield promising results, politicians need to be identified manually yet some Politicians lack Bios
- Following list may be in general more powerful than followers – likewise retweets and likes networks need to be evaluated

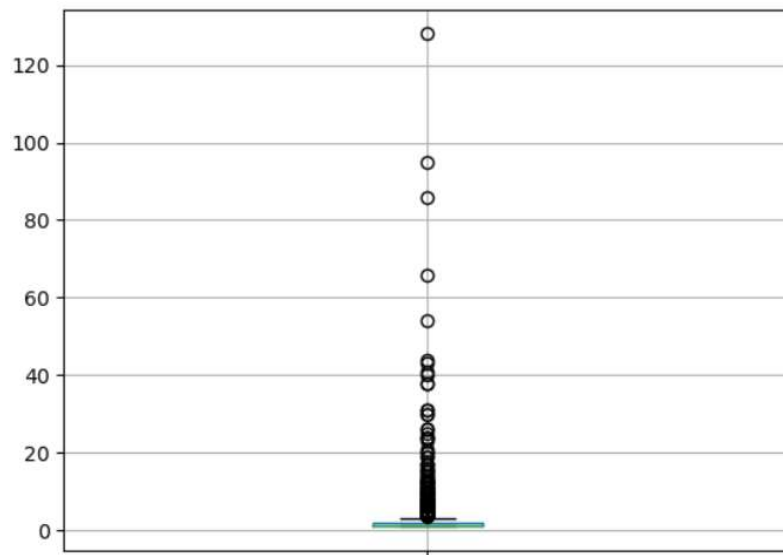


ADDITIONAL OUTTAKES

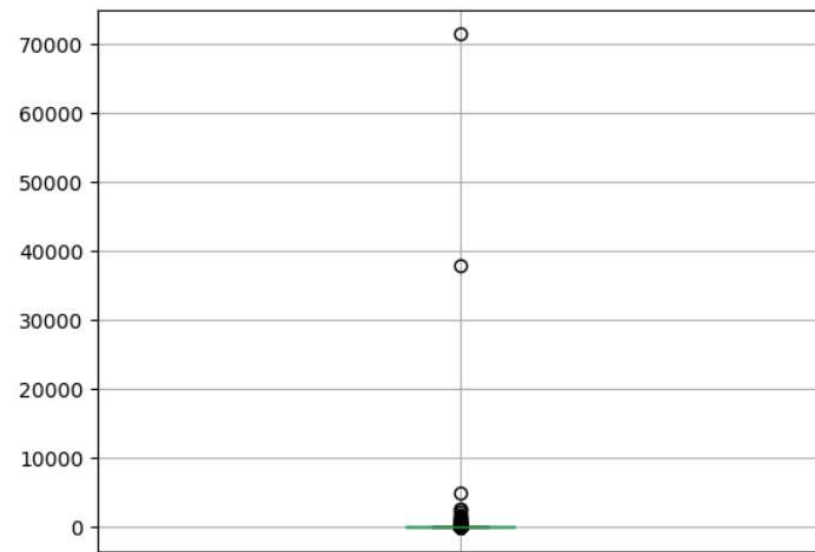


SUMMARY: DATA FOR SINGLE USERS TWITTERING #ANIMALWELFARE IS HIGHLY SKEWED

Number of #animalwelfare tweets
per user



Number of interactions on #animalwelfare
per user



A WIDE RANGE OF TOPICS WAS COVERED UNDER #ANIMALWELFARE (TOP 5 POSTS)

tweet	username	total_interactions
â€ARMSTRONG STEPS OUTSIDE FOR FIRST TIME IN 20 YEARS â€ A few weeks after #AnimalsAsia rescued Armstrong from 20 years on a bile farm, this brave #bear took his final steps to freedom into his enclosure at our Tam Dao sanctuary! ðŸ» #animalrescue #animalwelfare #endbearbilefarming	@AnimalsAsia	1794
Playing Happy Families...for SOCIOPATHS ðŸš–ðŸš–ðŸš–!! SHARE if you find this image VILE and want a GLOBAL ban on #TrophyHunting NOW!! #AnimalRights âœœ... #AnimalWelfare âœœ...	@ProtectWldlife	2180
Thanks again and again @rickygervais for all you do for #Animalwelfare.And its appreciated. And so needed .Especially now.	@DeborahKeenan12	2212
Shah Satnam Ji Green 'S' Welfare Force Wing volunteers showcased unparalleled compassion by rescuing a distressed cow trapped in mud. Their actions reflect the profound teachings of Saint Dr. @GurmeetRamRahim Singh Ji Insan that every life is precious. #AnimalWelfare #AnimalRescue #DeraSachaSauda #WelfareServices	@GreenSwelfares	4261
Hats off to the compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteers in Sadulshahar, Rajasthan, for saving an injured cowðŸ® and providing essential medical treatment. Every life matters, and their dedication to rescuing animals is truly commendable. #AnimalWelfare #MedicalAid #DeraSachaSauda	@GreenSwelfares	4945

FOCUS: @GREENSWELFARES

Tweet	Interactions
Kudos to the dedicated Shah Satnam Ji Green 'S' Welfare Force Wing volunteers in Samana, Punjab, who not only saved an injured cow 🐮, but also provided essential medical treatment. Their commitment to #AnimalWelfare is a shining example of compassion in action. #MedicalAid #DeraSachaSauda	6940
Kudos to the compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteers for their swift action in rescuing an injured 🐮, cow and providing essential medical care. Their dedication to animal welfare shines great. #AnimalRescue #AnimalWelfare #DeraSachaSauda	6796
Salute to the compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteers in Bhikhi, Punjab, for their quick action in saving an injured cow 🐮, and providing much-needed medical care. Their dedication to #AnimalWelfare is truly commendable. #MedicalAid 🐮🙏 #DeraSachaSauda	6641
From tiniest ant to the mighty blue whale, most loyal dogs to the highly intelligent octopus, various species of animals display incredible feats of unfathomable intelligence! On this World #AnimalWelfare Day, let's commit to champion the cause of animal welfare globally and aim for harmonious co-existence. #WednesdayMotivation	6626
Applause to Shah Satnam Ji Green 'S' Welfare Force Wing volunteers for their courageous effort in rescuing a stranded cow and providing much-needed medical treatment, inspired by the teachings of Saint Dr. MSG Insan. Their dedication embodies compassion in action. #AnimalWelfare #MedicalTreatment #DeraSachaSauda	6602
Salute to the compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteer in Ambala City, Haryana, for their noble act of saving an injured cow and providing crucial medical treatment. Let's continue to support and rescue animals in need. #AnimalWelfare #MedicalTreatment #DeraSachaSauda	6578
Salute to the compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteers in Dhamtan Sahib, Haryana, who rescued an injured cow 🐮 and provided essential medical treatment. Every life matters. Let's continue to rescue and care for animals in need. #AnimalWelfare #MedicalAid #DeraSachaSauda	5855
A compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteer removed a deceased dog from the road today. A somber reminder of our responsibility towards all creatures! #AnimalWelfare #RoadSafety #RespectForAllLife #DeraSachaSauda	5481
Compassion in action! Kudos to the brave Shah Satnam Ji Green 'S' Welfare Force Wing volunteer from Jaito, Punjab, for stepping in to rescue a cow stuck in the mud. Your kindness and courage is an inspiration for many. 🐮🙏 #AnimalRescue #AnimalWelfare #KindnessMatters #DeraSachaSauda	5436
Inspiring hearts and actions, Shah Satnam Ji Green 'S' Welfare Force Wing volunteers showcase boundless compassion by rescuing a dog and mending its leg, guided by the pious teachings of Saint Dr. MSG. Their selfless deed echoes the power of empathy! #AnimalWelfare #MedicalAid #DeraSachaSauda	5225
Hats off to the compassionate Shah Satnam Ji Green 'S' Welfare Force Wing volunteers in Sadulshahar, Rajasthan, for saving an injured cow 🐮 and providing essential medical treatment. Every life matters, and their dedication to rescuing animals is truly commendable. #AnimalWelfare #MedicalAid #DeraSachaSauda	4945
Shah Satnam Ji Green 'S' Welfare Force Wing volunteers showcased unparalleled compassion by rescuing a distressed cow trapped in mud. Their actions reflect the profound teachings of Saint Dr. @GurmeetRamRahim Singh Ji Insan that every life is precious. #AnimalWelfare #AnimalRescue #DeraSachaSauda #WelfareServices	4261

Seems to celebrate compassion to animals in small daily-life acts -> marked in yellow are rescues of cows from traffic

FOCUS: @DSSNEWSUPDATES

Tweet	Interactions
Today, World #AnimalWelfare Day, a reminder of our shared responsibility to preserve and protect the Earth's precious biodiversity. Let us champion ethical practices that ensure the well-being of all creatures. Let compassion, kindness and love guide our actions as we work towards a sustainable world! #WednesdayMotivation	9062
With humanitarian passion, we can save lives of the innocent. Upon noticing a cow stuck in a pit, #DeraSachaSauda volunteers rushed to save it. Their compassionate acts are all inspired by Saint Dr. @GurmeetRamRahim Singh Ji Insan. #AnimalWelfare	8087
Filled with compassion, #DeraSachaSauda volunteers today not only cleaned the roads but also respectfully moved a deceased dog to the side, ensuring safer travels for everyone. A true display of humanity and responsibility. #RoadSafety #KindnessMatters #AnimalWelfare	7306
Dera Sacha Sauda volunteers responsibly removed a deceased dog from the road, ensuring both public safety and compassion for the animal. #RoadSafety #AnimalWelfare	7101
The best way to celebrate birthday is by doing something special for others. This way, one definitely feels inner peace & that will be your return gift from God. #DeraSachaSauda #TreePlantation #RationDistribution #AnimalWelfare	6423

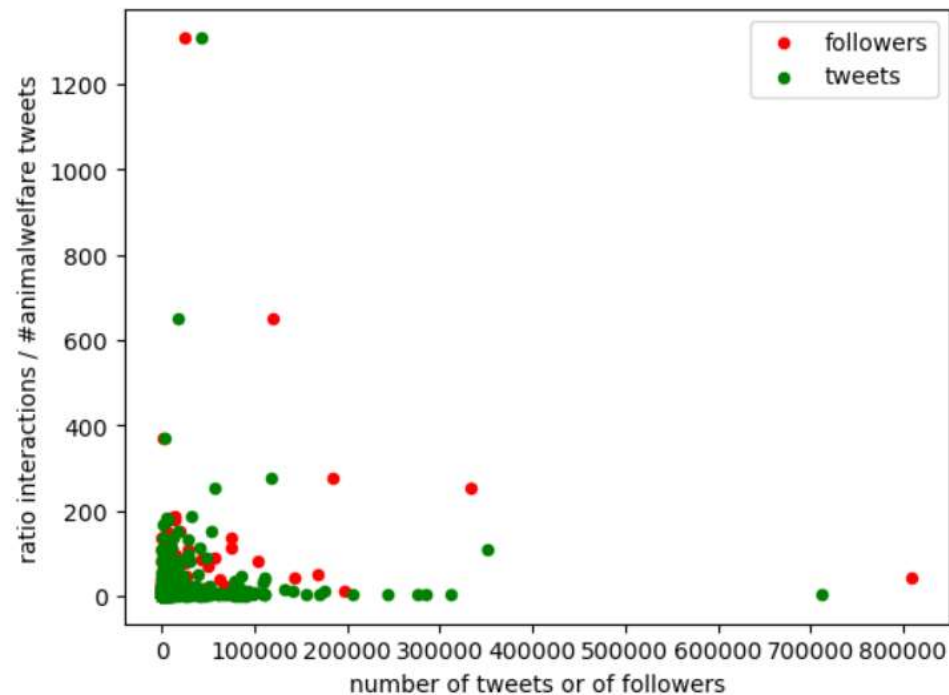
Again seems to celebrate compassion to animals in small daily life acts and mention world #animalwelfare day

FOCUS: @DEBORAHKEENAN12 & @BEARYHAPPY04

Tweet	Interactions	User
Thanks again and again @rickygervais for all you do for #Animalwelfare. And its appreciated. And so needed .Especially now.*	2212	@DeborahKeenan12
Can we help this baby pls #dogsoftwitter ðŸ™ ðŸ˜žðŸ”ðŸ¾ Rescue Only - MEDICAL PLEDGES NEEDEDâ€™¼i, at #Dallas Shelter SULLEY A1197904 6 Months old Female Suspected infected neck from dog inflicted wounds She needs out ASAP Email dasrescue@dallas.gov #Texas #Animals #AnimalWelfare	1511	@BearyHappy04
#dogsoftwitter #AnimalWelfare	9	@BearyHappy04

* @rickygervais is a standup comedian and animal activist

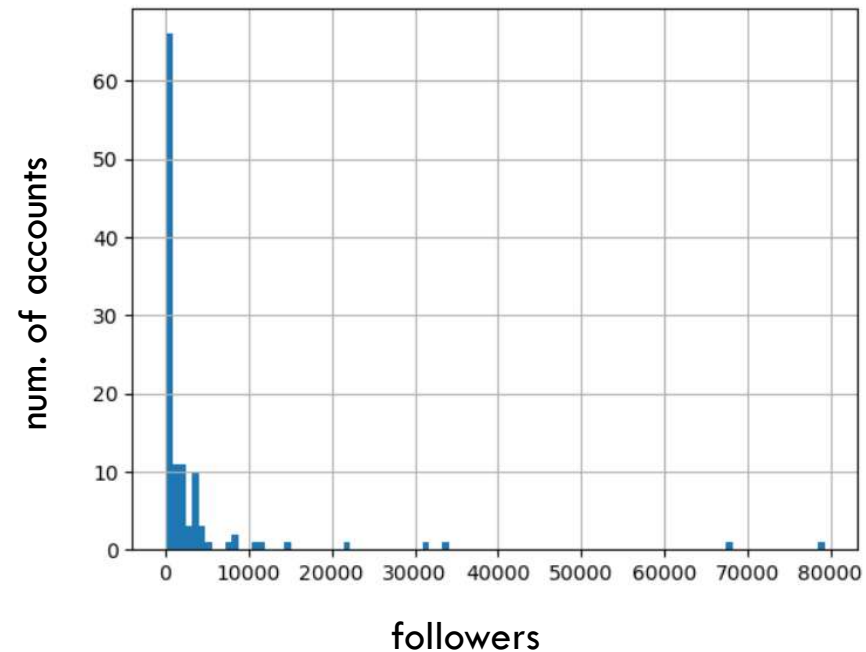
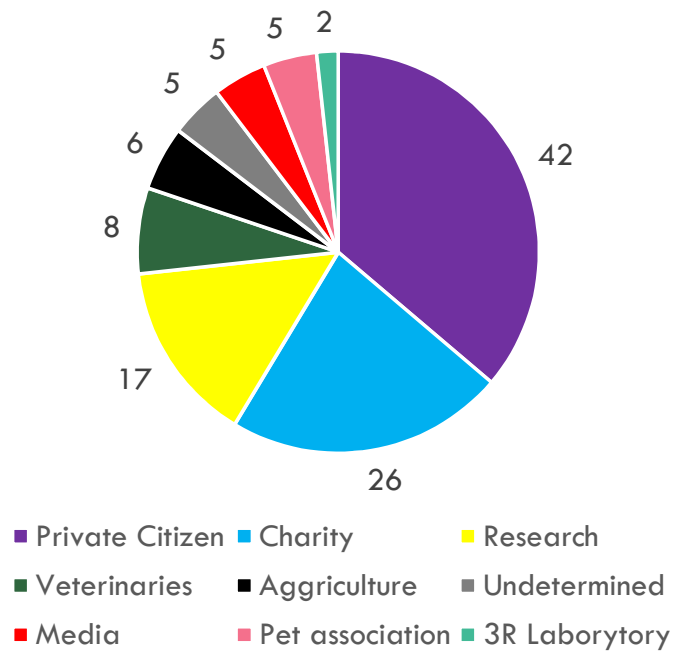
RATIO OF INTERACTIONS PER TWEET OF ACCOUNTS IDENTIFIED BY ANNOTATION



Again some accounts are highly impactful while most are not – independent of follower numbers or tweet numbers.

ACCOUNTS WITH LOW INTERACTION ON #ANIMALWELFARE TWEETS

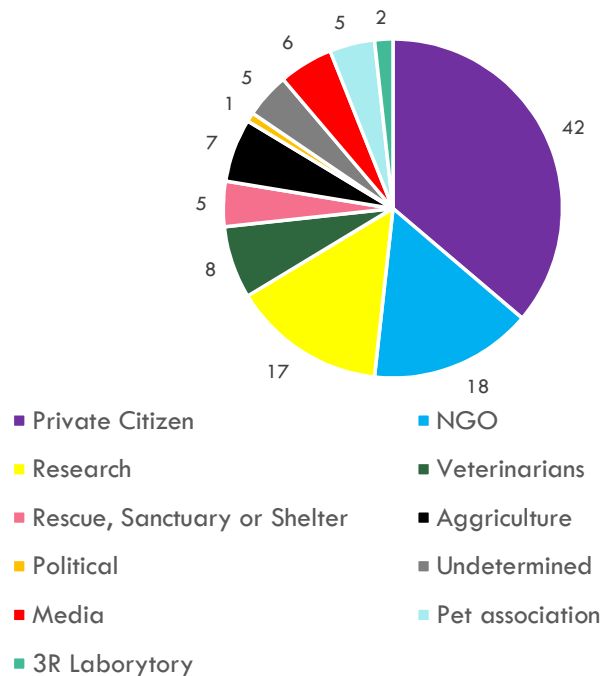
Of the accounts selected through annotation, 114 had only 2 or 3 interactions on tweets with #animalwelfare. These accounts could be categorized as:



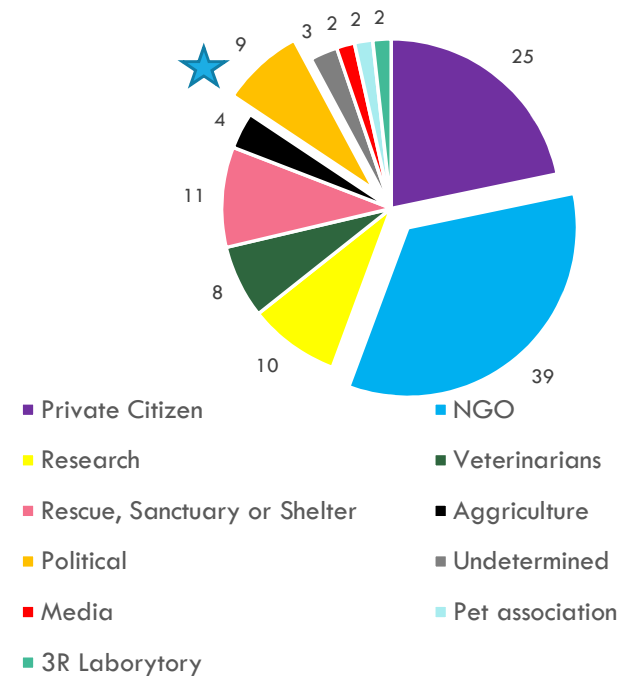
Median: 500.5
Mean: 3517.4

ACCOUNTS WITH LOW VS HIGH INTERACTION

114 accounts with lowest interactions (≥ 3)

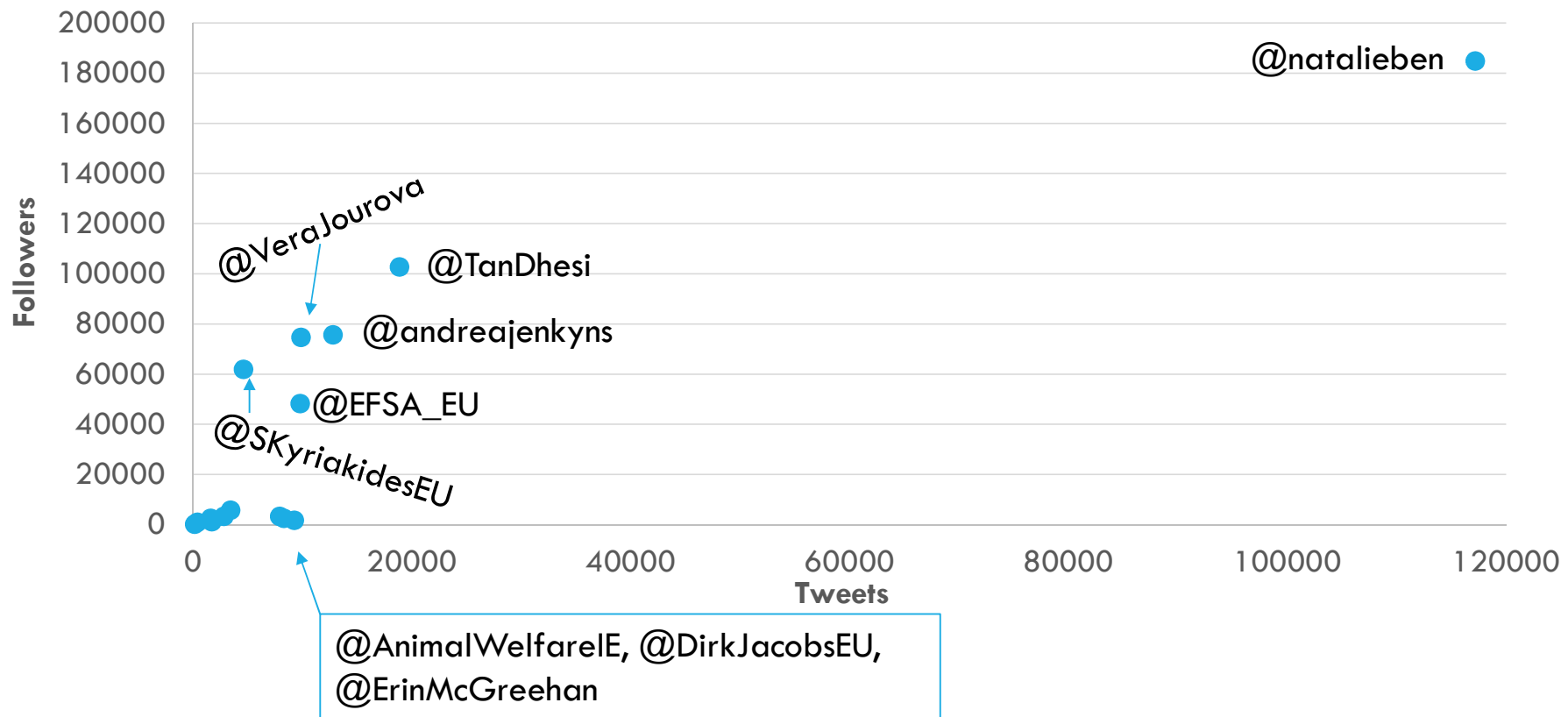


115 accounts with highest interactions (≤ 40)

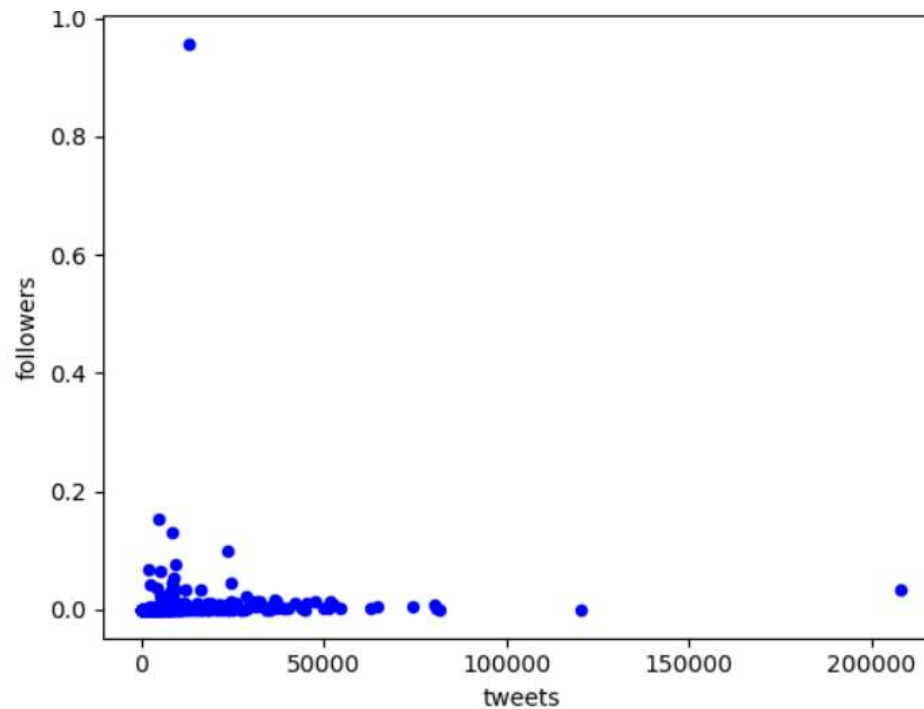


★ The 9 „Political“ accounts are: @natalieben (1101), @TanDhesi (166), @andreajenkyns (138), @MetzTilly (114), @VeraJourova (113), @EFSA_EU (76), @au_ibar (76), @AWintergroup (49), and @SKyriakidesEU (40)

IMPACT OF ACCOUNTS CLASSIFIED AS „POLITICAL“ WHO HAD TWEETED #AW

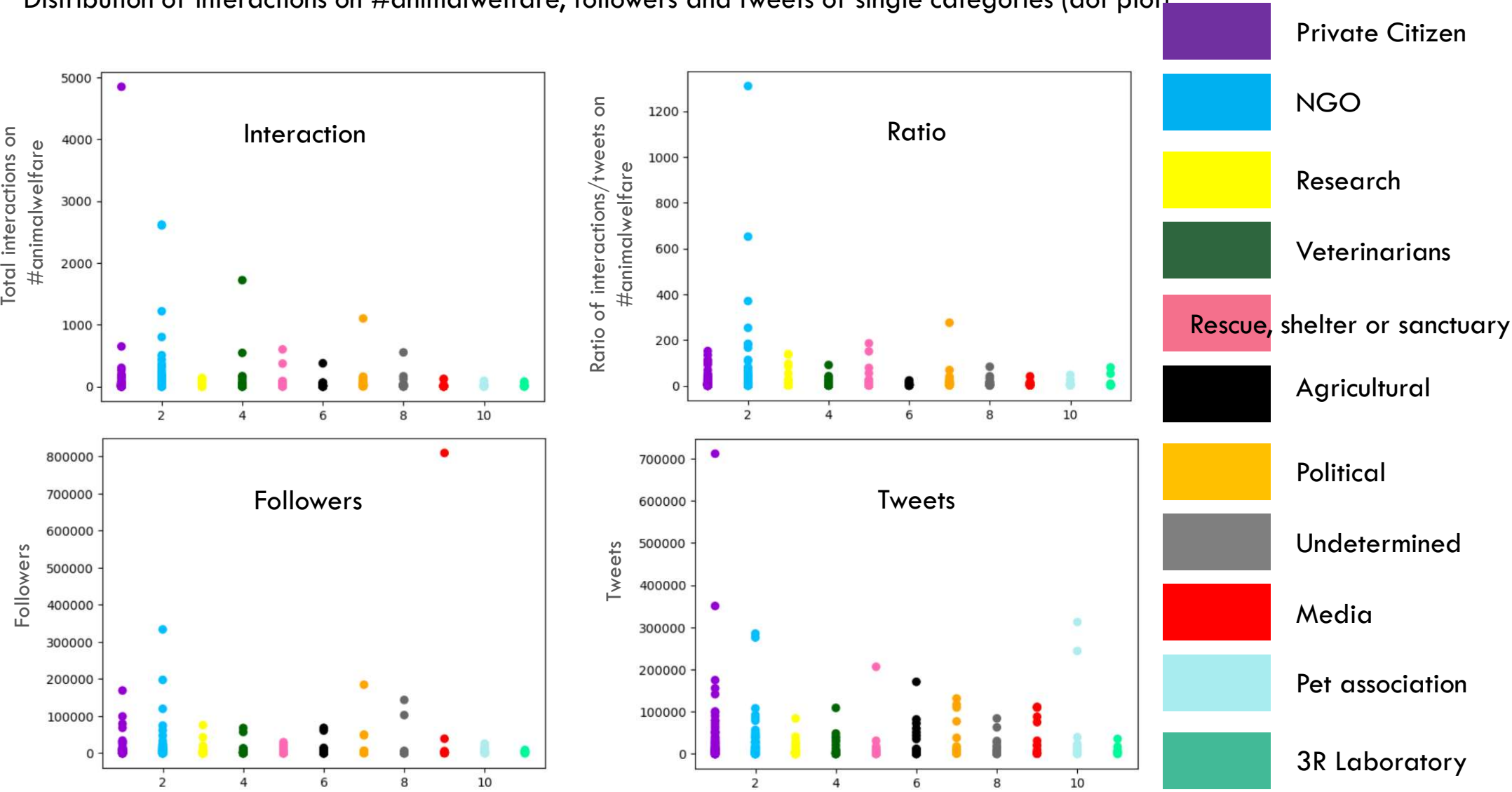


IMPACT OF ACCOUNTS CLASSIFIED AS „POLITICAL“



Still no correlation.

Distribution of interactions on #animalwelfare, followers and tweets of single categories (dot plot)



PROPOSAL FOR CATEGORIZATION OF BIOS BASED ON KEYWORDS: SUCCESSIVE CLASSIFICATION

Decision chain: Political > Veterinaries > 3R Laboratory > Research > Agriculture > Charity/NGO > Pet association > Media > Private Citizen > Undetermined

Category	Bio Key Words
Political	„MP“, „MEP“, „Senator“, „Body“, „Representative“, „Commissioner“, „European Union“, „Deputant“, etc
Veterinaries	„Vet“, „Veterinary“, „Veterinaries“, „Veterinarian“
3R Laboratory	„3R“, „Laboratory“, „Pre-clinical“
Research	„Research“, „Researcher“, „Professor“, „Lecturer“, „Investigator“, „Behaviour“, „Ethology“, etc
Agriculture	„Agriculture“, „Farm“, „Farmer“, „Poultry“, „Livestock“, „Food“, etc
Charity/NGO	„Animals“, „Animal“, and additionally: „Charity“, „Sanctuary“, „Welfare“, „Rescue“, „we“ etc
Pet association	„Pet“
Media	„Media“, „Journal“, „Outlet“, „Journalist“, etc
Private Citizen	„Animal advocate“, „dog/ cat/ wildlife advocate“, „views are my own“ -> „my“, „CEO“, etc
Undetermined	???

This can be partially automated by first searching for terms for Veterinaries/ 3R/ Research/ Agr/ Pet/ NGO, and then for Political/ Pr Citizen/ Undetermined