RaY

Research at the University of York St John

For more information please contact RaY at ray@yorksj.ac.uk

"Too hot to handle": Making lost and stolen pets present in virtual space

Jamie Arathoon [a,*], Daniel Allen [b], Alicia Hallatt [b]

[a] *School of Geographical and Earth Sciences, University of Glasgow, Scotland, UK*
[b] *School of Geography, Geology and the Environment, Keele University, Staffordshire, UK*

A B S T R A C T

Pets are socially, culturally, emotionally, and economically entangled in human lives. For humans, pets are loved, and the bond between human and pet extends beyond companionship to incorporate emotional and mental health benefits. Pet theft is a crime that exploits these emotional relationships with pets being stolen for ransom, reward, resale, and breeding. In this paper we explore the emotional geographies of online search/ing for missing and stolen pets. To do so, we utilise interviews with people whose dogs are stolen and have not returned, those whose dogs have been reunited, and with groups dedicated to reuniting missing and stolen pets. We also make use of posts from 20 Twitter/X[1] accounts dedicated to missing and stolen pets. In sharing posts online, humans utilise several search tactics. First, posts are shared with the idea of making pets "too hot to handle". This involves using images and hashtags to "go viral". Second, the posts are imbued with emotions, detailing the difficulties of losing a pet. Third, the use of images and descriptions of the pets' charismatic qualities and characteristics are used to make their pets present online. The findings here have relevance to literature on absence and presence, emotional and digital geographies of human-animal relations, and online identity-making. The paper also provides practical insights into (in)effective strategies of online searching, which can inform public engagement practices of lost and stolen animal support groups and individuals looking to make lost and stolen pets present in virtual space.

1. Introduction

In the UK it is estimated that there are 10.2 million dogs and 11.1 million cats, with 24 % of all owners acquiring their pet[2] since the start of the COVID-19 pandemic in March 2020 (PDSA, 2022). During lockdown many people acquired pets to combat loneliness; extending more-than-human families (Irvine and Cilia, 2017) to help reduce social isolation. This increased demand saw the price of dogs and cats rise (Pets4Homes, 2020), and an increase in reported pet thefts. Dogs were largely stolen from the home and garden – also during walks, and while unattended in cars and outside of shops (Home Office, 2021; Pet Theft Awareness, 2022). Valued economically as property and individually as

companions (Collard and Dempsey, 2013; Barua, 2016), the theft of a pet is an illegal money-making practice where animals are taken for resale, unlicensed breeding, ransom or reward. Working dogs and popular pedigrees generally have the highest resale value, however, the money involved in puppy farming, dog fighting, and extortion means any stolen dog or cat no matter the breed, age or sex can be a potential target.

As a crime, pet theft is not a Home Office Counting Rules (HOCR) 'notifiable' offence; instead, it falls under theft, robbery and burglary. Once recorded, information about stolen pets is not in the public domain, and police Freedom of Information (FOI) requests are required to retrieve such data from wider offences by searching for 'dog' and 'cat'.

---

* Corresponding author.
  E-mail address: arathoonjamie@googlemail.com (J. Arathoon).
  [1] After completing the research and writing the paper Twitter was sold and rebranded. On receiving our reviews, we have reoriented our use of language to better reflect X and the language that is used. We will now use X going forward and note here that tweets are now called 'posts' and retweets are now called 'shares'.
  [2] There is often an overlap between the usage of 'pet' and 'companion animal', with a pet being considered to provide companionship. Pet indicates a level of ownership, however we use pet as this is often the terminology for many of the participants but also the charities and organisations involved in reuniting lost and stolen pets with their human partners.

Using FOI requests, Allen et al (2019) and Selby-Fell and Allen (2021) demonstrated an upward trend in recorded dog theft offences in England and Wales from 2015 to 2021, with a downward trend in associated charges.[3] In response to these trends and growing public concern, The Pet Theft Taskforce was created in May 2021 to examine "causes; prevention; reporting and data; enforcement; prosecution, and; sentencing" (Home Office, 2021: p.7). The Pet Theft Taskforce Report (Home Office, 2021: p.29) recommended the development of a new 'pet abduction' offence through primary legislation and actions that "will ensure that the issue of pet theft is tackled end from end, and that the welfare and safety of pets is fully taken into account" (Home Office, 2021: p.29).

Although the "emotional impact of having a pet stolen" was described as "undeniable" (Home Office, 2021: p.29), victim experiences did not feature in the report. Recognising this, Allen et al. (2022) explored people's experiences of having a dog stolen and how they go about enacting strategies and tactics to search for their lost dogs. They found that the theft of a dog leads to emotional turmoil about the ambiguous absence of a pet, and that "inconsistent guidance and support from the police led to disappointment and resentment, influencing victims to seek alternative spatial and temporal tactics", such as the utilisation of social media to make absent pets present in virtual space (Allen et al., 2022). The hope being: i) the stolen pet attracts so much online attention that it is considered "too hot to handle" and is returned by those responsible, or ii) members of the public recognise the stolen pet and provide information which leads to a reunite.

Building on this work, this paper aims to provide greater detail into the emotional experiences of having a pet become lost or stolen, and to examine how people attempt to search for their pets using social media. This paper addresses search/ing[4] in online space and acts to contribute to victim support and organisational resources. First it outlines relevant literature on animal geographies, pets and pet theft. Second, it draws on literature around absence and presence, creating connections with literature around missing people. Third, it examines the more-than-human geographies of social media. The paper then moves on to address the methodological approach which utilises interviews and social media analysis. Three themes emerge: sharing and the online community, emotional geographies of online search/ing, and pet's bodily and agentic presence. Finally, the paper discusses future research and provides advice for charities, voluntary organisations, and individuals, using online search/ing for lost and stolen pets. Through this paper we seek to examine: i) how humans make their lost and stolen pets present in virtual space; ii) how virtual space is used as a search tactic; and iii) how emotion is expressed through online search/ing. In doing so, we contribute to the wider animal geographies literature by exploring pet loss through the forced absence of theft.

2. Animal geographies, pets, and pet theft

Animal geographies emerged as a subdiscipline in the 1990s with a clear political aim of bringing "animals back into geographical inquiry" (Wolch and Emel, 1995: p.635). To do so, animal geographers have taken on two interrelated concerns (Philo and Wilbert, 2000). The first, 'animal spaces', explores the spatial ordering of animals in relation to different human communities and practices. The second, 'beastly places', focuses on lived experiences and agency or animals' geographies (Hodgetts and Lorimer, 2015). Attending to both areas of interest, animal geographers have advanced the discipline through a series of differing interactions, highlighting the experiences of nonhuman animals, nonhuman animals' relations to humans, nonhuman animals' own agency, and methods of ethical engagement with animals (Buller, 2014, 2015, 2016; Gibbs, 2020, 2021; Gillespie and Collard, 2015; Hovorka, 2017, 2018, 2019; Philo and Wilbert, 2000; Wolch and Emel, 1998).

The companion animal has been a prominent feature of these geographical engagements in both animal spaces and beastly places. Focusing on pets and companion animals in animal geographies is important for three reasons. First, charting our shared existence with pets can tell us about the human-animal bond and the social, emotional, cultural, and economic shifts of these bonds over time and between different spaces. Second, through pet studies we can chart a rise in the pet's place in the home (an animal space) with wider economic and social shifts (Nast, 2006). The UK is often considered a nation of 'animal-lovers' with 52 % of UK adults owning a pet (PDSA, 2022). Pets are understood through familial relationships where 'pet parents' look after 'fur babies' (Greenebaum, 2004), where pets' status goes beyond that of ownership to be 'kin' (Charles, 2016), and part of a more-than-human or posthuman family (Power, 2008; Charles, 2014, 2016; Irvine and Cilia, 2017). Pets are pampered as "objects of human affection and love" (p.894) with an attendant economy of new luxury animal spas, hotels, food, and care available. This has led Charles (2014: p.715) to state that "the affinities between people and their pets are experienced as emotionally close, embodied and ethereal and are deeply embedded in family lives", they are valued for their nonhuman charisma encompassing descriptions such as 'cute' or 'cuddly' (Lorimer, 2007). Third, relationships with pets and companion animals can tell us more about human health and wellbeing. Socially, dogs act as conversation starters through membership of a shared identity (Fletcher and Platt, 2018). Through the human-pet bond, pets can influence human lives by decreasing loneliness and increasing physical activities (Cutt et al., 2007).

We aim to extend animal geographies literature on companion animals by focusing on lost and stolen pets. Detailing historic cases of pet theft in Victorian London, Howell (2000) describes the theft of a pet as emotional exploitation, where organised crime targeted the wealthy, white, middle classes, stealing dogs for extortionate ransoms, dog fighting, and breeding. The organisation of such crimes spread fear and anxiety across middle-class pet owners (Howell, 2000), so much so that a Select Committee on Dog Stealing was considered (but rejected) in July 1844 (Hansard HC Deb, 11 July 1844). In contemporary society, Allen et al (2019) used FOIs to 43 regional police forces in England and Wales, and to the British Transport Police, to investigate the temporal and geographical trends in dog theft offences. The results showed a rise in recorded dog theft crimes from 41 of 44 police forces, from 1559 crimes in 2015 to 1842 in 2017, and a decline in the percentage of 'charges', from around 4 % (64 of 1559) in 2015 to 2 % (39 of 1842) in 2017. Similarly, Selby-Fell and Allen (2021) found a 3.5 % increase in dog theft crimes for the 33 English and Welsh police forces where both 2019 and 2020 data were available, with less than 1 % of all recorded offences resulting in a charge.

Beyond these statistics, the experience of having a pet being lost or stolen are filled with emotional turmoil for owners (Allen et al., 2022), the loss or theft of a pet should not be considered the same as losing a phone or wallet (Harris, 2018). Although we do not make direct comparisons between stolen pets and missing people, the experiences of families with stolen pets (Howell, 2000), and families of missing people (Parr and Stevenson, 2015; Parr et al., 2016) are bound up with emotions. Similar emotional experiences are reported between families with lost relatives and lost pets such as anxiety, self-blame, and emotional

---

[3] Selby-Fell and Allen (2021: p.3) stress the importance of treating police recorded crime data with caution, and of "recognising the range of limitations associated with it". This includes inconsistent and incomplete data as the 43 territorial police forces in England and Wales have different data recording and retrieval systems, and different approaches to the theft of a pet depending on the allocated police officer.

[4] We adopt Parr et al.'s (2016: p.66) use of the phrase, noting that: "In using 'search/ing' we deliberately use a combined construction of 'search' and 'searching' to indicate the simultaneous reference to a practical, material, or virtual act with particular parameters (a search) and reference to a constant processional investigation to locate another human being (searching). Search/ing may have emotional or psychological dimensions, and may combine in a variety of ways at different stages of a noticed absence and be operative at different scales".

distress. Parr et al (2016) outline a range of different search practices that the families of missing people undertake, grouping them into physical searching (e.g., door knocking or site-specific searching), documentary/virtual searching (e.g., letters to specific locales or media appeals via TV, radio, or print), social networks/alerts (e.g., contacting friends and family), and charitable help. These search/ing activities, and greater situational crime prevention measures (Allen and Wyatt, forthcoming), show the different lengths that families go to try to find their missing family member but also pet too. We aim to explore virtual searching for missing and stolen pets to examine greater how their absence is made present within social media.

3. Absence and presence

In this article we focus on the loss of a pet through ideas of absence and presence. DeLyser (2014) has discussed four ways in which geographers generally explore absence: through allusivity, hauntings, and spectrality; by embodied experiences of absence; via absence related to consumption; and through absence in landscapes such as ruins. We aim to focus on work surrounding the experiential nature of absence, which is absence that is felt materially and sensuously. Absence is a relational phenomenon constituted through corporeal, emotional, and material affects (Frers, 2013). Thus, the idea of absence builds on there being a prior relationship in which one or both parties feel the effects of absence (Frers, 2013; Parr et al., 2015, 2016). Absence, being relational, is deeply entangled with presence. This brings two ideas to the fore: first, 'the presence of absence', which refers to absence itself; and second, 'the absence of presence', which refers to the missing 'thing' (Meier et al., 2013). This is discussed further by Maddrell (2013: p.504–505) who reflects:

> "An absent presence reflects the apparently contradictory binding together of things absent with the present; whatever or whomever is absent is so strongly missed, their very absence is tangible (i.e., it becomes a presence). In everyday social life this sense of the absent presence might be experienced in a range of scenarios, such as by parents when a child leaves home or by a broken-hearted lover after a relationship has ended".

Both Maddrell (2013) and Meier et al (2013) allude to the deeper intricacies of absence and presence, their relational qualities, and the nuanced nature of experiencing absence. Maddrell (2013: p.505) describes further:

> "Absence is not merely a 'presence' in and of itself, but rather the absent is evoked, made present, in and through enfolded blendings of the visual, material, haptic, aural, olfactory, emotional-affective and spiritual planes, prompting memories and invoking a literal sense of continued 'presence', despite bodily and cognitive absence".

The experiential dimension of 'feeling' absence is what makes absence present in everyday lives. But absence and presence also have political dimensions, they are negotiated and contested. In our article, these dimensions manifest through how the posts of lost and stolen dogs are shared by different charities and how their absence is negotiated in social media.

But there remains an ambiguity about absence and presence, one which Parr et al., (2016: p.68, *emphasis original*, citing Boss, 1999) discuss, stating that "ambiguous absence is different to 'ordinary' loss as missing people are *physically absent but psychologically present* for their families". It is this emotional, psychological understanding of absent-presence that is important for understanding experiences of loss and absence. Allen et al (2022) describe the ambiguous loss, or states of limbo, many pet owners feel when their pets are stolen. Not knowing what is happening to the pet places them as physically absent but psychologically present through a need for closure. Likewise, Parr and Stevenson (2015: p.310) discuss how in interviews with families of missing people, talk "about absent others brought to presence both these

missing people and the ambiguities often surrounding their words about them". Thus, talk about absence acts as a catalyst that brings to presence the absence and loss of a loved one. In Allen et al. (2022), Parr et al. (2015, 2016) and Parr and Stevenson (2015),absent-presence is recognised through deeply emotional ties and an ongoing continuation of a relationship, whether human–human or human-animal. The aim of this work is to move discussions of absence and presence beyond human boundedness to explore the 'ambiguous absence' of pets that are lost or stolen. To do this we explore absence and presence in virtual space, and particularly how participants attempt to make their pets present in virtual space.

4. More-than-human geographies of social media

In geography there has been a "turn to the digital as both object and subject of geographical inquiry, and to signal the ways in which the digital has pervasively inflected geographic thought, scholarship, and practice" (Ash et al., 2018: p.25) as there is "a recognition of how the digital is reshaping the production and experience of space, place, nature, landscape, mobility, and environment" (p.35). This rise in the digital has focused on big data, gaming and virtual reality, software, computing, digital methods, and social media. What we are interested in for this article are the different ways in which social media is used to produce and share knowledge and create shared identities around pet loss and theft. Social media are being used to inform and mobilise diverse publics, cultivate social movements, challenge political and scientific orthodoxy and set political and policy agendas (Kitchin et al., 2013). With this growth in interest, work has proliferated on a more-than-human focus on digital geographies that can be split between research around encountering animals online and work on animals on social media.

The first set of research, on encountering animals online, aims to show the importance of more-than-human digital media encounters. Digital encounters with animals increased during COVID-19 as a way for humans to engage with animals and nature whilst in their own homes. Whilst live streaming of animals was available before COVID-19 the rise in digital engagement shows how "digital animals have become an important part of how we perceive the "natural" world around us during quarantine, as we oblige to varied patterns of encounter with urban ecologies" (Turnbull et al., 2020b: p.2). Turnbull et al. (2020a) explored digital encounters with nonhuman animals during lockdown, including a live stream of rescue animals at an animal sanctuary, an NGO-guided virtual visit to the Chernobyl Exclusion Zone involving feeding dogs living on the site, and a live-stream of the nests of urban peregrine falcons. These animals are digitally encountered in different ways and have real time affects that question boundaries of presence/absence and the actual/virtual (Turnbull et al., 2020a). In another example of digital viewings of peregrine falcon nests, Searle et al (2023) outlines how the digital peregrine can foster modes of conviviality and care-full human-animal relationships through encounters with charismatic animals near 'us'. These digital encounters with animals are built on live streaming animals and are thus quite different to our own discussions of lost and stolen pets, however, it is the encounter value of seeing the animal on the screen that shares value with our work.

The second set of work is branched around how humans use social media to share information about their daily lives with their pets. Schuurman (2021, 2022) examined both online blogs of people with rescue dogs and the websites of Finnish animal rescue charities with the aim of investigating how Finnish animal rescue charities present dogs online and how the blogs report on the relationship between human and rescue dog. For the websites of Finnish animal rescue charities, they portrayed dogs through 'performances of adoptability' (Schuurman, 2022). The dogs' life histories, present situation, and subsequent adoptability are shared through stories based on interpretations of their experiences, subjectivity, and agency, becoming part of how the adoptability of the dogs is performed online in the form of nonhuman

charisma (Lorimer, 2007) and encounter value (Barua, 2016). Similarly, the blogs of those with rescue dogs aim to narrate a common effort at transforming the rescue dog into a pet, as it is understood in Western pet-keeping culture (Schuurman, 2021). This includes the challenge of domesticating the rescue dog and reducing the instances of negatively associated behaviour when the rescue dog was first brought home. These negative behaviours, such as barking, were reasoned through the dogs' history and agency, whether they had been beaten in the past, or had lived on the streets. Positive encounters where also shared such as the rescue dog behaving well on the lead. Through these blogs "the dog–human relationship is communicated to the reader in a way that suits the culturally shared idea of living with a dog, including expectations of attachment and control, and interpretations of animal agency" (Schuurman, 2021: p.686).

Additionally, through the growth of new media sites such as Facebook and X, a variety of pet-specific social media has formed. DeMello (2012) examines the role that Bunspace, an online social media site for rabbits, plays in providing support and advice on issues of rabbit healthcare, diet, bonding, and death. Interestingly, the profiles on Bunspace are set up under the name and interests of the animals, rather than their human companion, thus aiming to reflect animals' experiences (Hodgetts and Lorimer, 2015). Schally and Couch (2012) found that 75 % of their respondents in their study of cat social media site Catster, used what they know of their cats' personalities in constructing the online accounts, but that their own (human) personalities also came through in the accounts when communicating with other cats. These online accounts thus create a space for alternative understandings of animal subjectivity (DeMello, 2018). Whilst our study does not look at pet-specific social media sites, there are many similarities which map onto our paper, such as the multiple ways in which pets are presented through social media accounts, and the role of these accounts in wider pet-keeping societies.

5. Methodology

To explore how people make their pets present in social media, we drew on 15 interviews with (human) victims of dog theft and charity and organisation volunteers (see Table 1). Participants were separated into the groups 'Dog Theft Victims' and 'Community Resolution Groups' however many participants occupy an 'inbetweenness', as both victims of dog theft and organisers of community-ran dog theft resolution groups (see also Allen et al., 2022: p.6). Interviews were conducted in 2019 after receiving ethical approval from University X's Ethics Committee. Interviews were semi-structured and completed via telephone calls lasting 30–90 min. The names of owners and dogs have been changed to protect identities. Those speaking on behalf of community resolution groups agreed to participate with the knowledge that they may be identifiable in relation to their public-facing roles within such groups. In a previous paper we outlined the emotions of the interview, how we changed our language to better reflect the participant's hope for being reunited with their stolen dogs, and the spatial performances used by participants to feel like they could talk about loss (Allen et al., 2022).

Furthermore, we drew on 20 X profiles and analysed their posts to gain an understanding of how people make lost and stolen pets present in virtual space. The profiles analysed range from small organisations dedicated to sharing information on lost and stolen pets, to national organisations, and individual people. The accounts themselves are understood as important in the representation of the phenomenon of a pet being lost or stolen. The X accounts of SAMPA (The Stolen and Missing Pets Alliance) and other organisations were chosen due to their significance in trying to share information on lost and stolen pets as well as their political influence. Other organisations, groups, and individual

Table 1
Biographical information of participants from this study.

Dog Theft Victims				
Owner	Dog(s)/(Breed(s))	Police Force	Year Stolen	Missing/Reunited
Tanya	Toby (Pomeranian)	Kent	2018	Reunited 2018
Sarah	Bailey (Sprocker)	West Mercia	2018	Missing
Julia	Twix and Twirl (Border Terriers)	Scotland	2018	Missing
James	Pippa (Rottweiler)	West Yorkshire	2015	Missing
Heather	Rocco (Beagle cross Australian Kelpie)	Leicestershire	2019	Reunited 2019
Lucy	Star (German Shepherd)	North Wales	2019	Missing
Rachel	Oreo (Cocker Spaniel)	Thames Valley	2019	Missing
Shirley	Nexus (Miniature Pinscher)	Thames Valley	2018	Missing
Megan	Nova (Whippet)	Thames Valley	2018	Missing
Rosa	Tala and Teddy (Husky and White German Shepherd)	South Yorkshire	2016	Missing

Community Resolution Groups				
Participant	Dog(s)/(Breed(s))	Community Group	Year Stolen	Missing/Reunited
Karen	Roxy (Cocker Spaniel)	DogLost – West London	2013	Missing
Debbie	(Yorkshire Terriers)	Stolen and Missing Pets Alliance (SAMPA)	2006	Reunited
Emma	NA	Help Bring Daisy Home (Facebook Group)	NA	NA
CJ	NA	DogLost – Police Liaison	NA	NA
Andy	Murphy (Husky)	Murphy's Army	2014	Reunited – 3 months later in 2015

accounts were chosen through the researchers' prior X networks. Posts were collected through the NCapture[5] tool of NVivo and stored within NVivo. Table 2 shows the accounts analysed and number of posts collected.

To focus on several important factors to pet theft, we removed posts that were not relevant (i.e., those related to other animal causes), and duplicated posts (i.e., the same post appearing more than once due to being shared by the analysed accounts). The removal of duplicated posts was done automatically through NVivo however, the removal of irrelevance was done by searching for key words (i.e., hunting) and removing them if not about pets being lost or stolen. That reduced our dataset from 43,278 posts to 37,222. We auto-coded our posts for all the hashtags used, which lead to 35,000 references across a series of hashtags. Sorting through these hashtags we removed those that were not relevant to our project (i.e., auto-coded hashtags like #stopfaroesewhaling) and arrived at a series of hashtags, for which we chose to focus on the top 20 hashtags by frequency of use. We chose 20 as this would give us a broad range of hashtags from those that are specific to individual accounts (i.e., #DroneSAR), to those that are more generic (i. e., #Lost), to those about the pet theft campaign (#PetTheftReform). These hashtags can be seen in Table 3. The use of both interviews and X posts allowed us to understand what people say about social media use for searching for lost and stolen pets and to examine how this is used

---

[5] NCapture is an online extension that enables material gathering from the web.

Table 2

Analysed X accounts of lost and stolen dog and cat organisations, and accounts dedicated to finding specific pets (All posts collected on 09/05/2022).

X Account	Number of Posts Analysed	Number of Followers	Date of First Analysed Post
Businesses			
Animal Search UK	3239	12,591	08/2017
The Pet Detectives	1019	760	11/2010
Charities			
Beauty's Legacy	1334	1390	10/2019
SAMPA			
DogLost	3250	56,732	02/2022
Pet Theft Awareness	3243	12,767	01/2022
SAMPA	3246	5552	08/2021
Volunteers			
Bring Ted Home	294	1532	12/2020
Drone SAR for Lost Dogs	3250	2842	10/2020
Find Clooney	1261	513	10/2013
Find Kemo	3186	1648	03/2019
Find Missing Kobe	3185	695	10/2019
Get Dexter Home	1854	659	02/2021
Help Find Margie and Ruby	3243	1200	12/2021
Help us Find Rosie	174	235	12/2020
Lost and Stolen – Rescue Dogs UK	3230	11,722	08/2021
Missing Cats UK	3233	2391	06/2021
Missing Pets GB	3245	30,944	02/2022
Stolen Buster	130	77	04/2022
Stolen, Help Bring Daisy Home	586	519	05/2018
Stolen Ivy	1076	751	02/2021
Total Posts: 43,278			

Table 3

Top 20 hashtags by frequency of use.

Hashtag	Number of Times Posted in Dataset	Number of Times Shared in Dataset
Alert	1853	41,941
Cat/s	1343	41,433
Dog/s	1587	123,708
DroneSAR	3156	61,338
Found	1241	30,318
FoundDog/s	1236	35,674
GetDexterHome	960	40,360
HomeSafe	1149	18,299
Kent	1101	56,350
Lost	1891	62,678
LostCat/s	877	26,308
LostDog/s	3112	80,846
Missing	1725	109,008
MissingCat/s	1030	25,380
MissingDog/s	2131	61,513
PetTheftReform	1038	72,412
Reunited	2575	38,141
ReunitedDog/s	1015	4837
ScanMe	953	54,281
Stolen	2337	122,406

online. Using both these methods helped develop a more rigorous approach to cross-analyse both people's talk and people's practice.

All interviews and posts were coded via NVivo. This involved reading the data to get a subjective feel of the sentiments expressed and an initial word frequency and text search query to help us understand the context of the interviews and posts, and then to directly code themes that were relevant to this paper. Once we completed this initial phase of searching the larger process of analysis involved "reading, reflecting, coding, annotating, memoing, discussing, linking, [and] visualizing" (Bazeley and Jackson, 2013: p.68). Our codes range from being purely descriptive ('this is about sharing online posts'), to offering labels for topics or themes ('this is about virtual space'), through to more interpretative or

analytical concepts ('this is about presence') (Bazeley and Jackson, 2013). We then cross-referenced our codes to find any similarities and differences. Three themes emerged from our coding that we shall discuss in turn: i) sharing and the online community; ii) emotional geographies of online searching; and iii) pets' bodily and agentic presence. We finally go on to discuss guidance for individual, voluntary, and charity X accounts.

5.1. Methodological limitations and ethical challenges

There are some key ethical dilemmas to consider when using online social media for research purposes, such as informed consent, confidentiality, and privacy (Sparks et al., 2016; BSA, 2017; von Benzon, 2019; Wilkinson and von Benzon, 2021; Dunne et al., 2022). For our research, privacy and confidentiality are important. X makes clear the public nature of their platform to users when they sign-up (Twitter, 2022). Whilst it is naïve to suggest that all users read these privacy statements, the fact that accounts can be made private is one way for users to take agency of their online profiles. Therefore, we do not use any accounts that required us to 'follow' them to gain access, as they had taken a step in securing their privacy. It is important to not see accounts as archives of readily available data but, instead, to understand the many complex ethical and social dilemmas of using online social media for research purposes (Morrow et al., 2015). This is why we focus on volunteer and organisational X accounts as the work they do is public facing. In addition, given that the main goal of these accounts is to spread awareness of pets that are lost and stolen, anonymisation in the name of bureaucratic ethical goals of protection and harm reduction, is antithetical to the goals of these accounts. Like von Benzon (2019) who discusses online blogs, we therefore do not anonymise the X accounts, as we recognise the agency of the account owners, but we do remove personal details, such as phone numbers, from the posts. Removal of phone numbers is important as with increased visibility in online spaces, there is a risk of spam and blackmail to owners (see Allen et al., 2022). DogLost recommend not to include phone numbers, but historical and legacy posters remain; and other groups and individuals have chosen to continue including such details.

Furthermore, there are several limitations with our dataset. We only focused on 20 X accounts when tens of thousands of people in UK have had their pet stolen or become lost (and not all those people have X accounts to share this information). We limited our analysis due to the sheer number of posts available and to make the data manageable. In addition, due to the ephemeral nature of the internet, and X, the numbers of reported shares for the individual posts we analysed may have changed. However, our presentation and analysis of 'top posts' — those that garnered the most shares from our dataset – are a clear indication of their importance and reach across social media. Furthermore, in recognising that posts or X accounts may be deleted, we checked the accounts were still 'active' after our analysis. If posts were deleted, or accounts made inactive, we took steps to safely and securely remove them from our dataset. Here we recognise the agency of the account owner in removing information from the public domain however, the issue remains that once this research is public, X accounts can still be deleted.

6. Making absence present in virtual space

6.1. Sharing and the online community

This first theme relates to the practices of sharing posts of lost and stolen pets in online groups and communities. Many of the interviewees discussed their use of social media (particularly Facebook and X) to help find their lost pets. Reportedly Facebook has more of a community feel where support networks and friendships are formed with focus on sharing posts of lost and stolen animals:

"It's a nice community, it was very, very supportive on Facebook, it's probably the most supportive thing to do if you do lose a pet, it's to contact everything through there to be honest" (Heather, Leicestershire).

Others commented on the sheer number of members, posts, and messages they received through their Facebook groups:

"When we first opened our page, I thought it will just be a couple of friends sharing things, and we've got no chance. But after about a week we had 50,000 followers, and it went right up to, we were reaching nearly 2 million people. I was getting messages from Australia, Canada, America and everything" (Andy, Murphy's Army).

Andy raises an interesting temporal and spatial point about their Facebook page. Originally thinking their page would be constrained locally by friends, the page has grown to have a wide geographical reach. The use of social media in searching for lost and stolen pets moves the space of the search globally beyond the local nature of physically searching for a lost or stolen pet (Allen et al., 2022). The Facebook and X groups rely on members sharing posts of lost and stolen pets:

"I run my Facebook account, which takes up loads of time. It's a 24/7 job, it really is. But I had a lady who, never met in my life, who took it upon herself to run Instagram, and she's running an Instagram page for them. And now, there's a lady from London, set up a webpage for Ruby and Beetle, and she runs a Twitter [X] account for them. And I said, I can't, my family, my husband would freak if I started taking on other social media avenues" (Julia, Scotland).

Julia discussed the kindness of strangers who have provided their labour by running her X and Instagram pages. This shows the clear advantage of using social media to search for lost and stolen pets, that there is a supportive network of people online.

The aim of online search/ing is to make lost and stolen pets present online and thus increase the chance of a lost or stolen dog being found. One way to go about this is through the practice of 'sharing' posts online and using hashtags (on X):

"I can definitely feel it's bigger. More people talking about it. I can see the hashtags. Social media has played a huge part in that. Being able to get information out there so quickly. And it's gotten so many dogs back. Putting pressure on people to return dogs. It has just been amazing, social media" (Debbie, SAMPA).
"Through my friend I think we've gone viral on Twitter [X] every Friday with [a hashtag]. So, we've started today with just the number of shares, she gets about 800, 900 shares a week. So, we used those methods really, anything that looks like her being sold. Various sort of, my team, kind of poses as buyers and see if we can find things out" (Megan, Thames Valley).

In addition to sharing information, the aim is to make this information go viral,[6] and thus transcend local searches, and for the pets in question to be 'too hot to handle'. This is a phrase used to indicate the idea that the lost or stolen pet attracts so much attention online that the person who has taken the pet returns them, or people have the ability to find them. Megan discussed a strategy for online search/ing through posting regularly on a set time and date and by using a hashtag. The set time and date can allow followers to know when Megan will post, whilst the use of hashtags is important as they can be tailored to specific searches, places, and people. There is also a level of performativeness to making a post go viral that requires constant posting to attract shares. Table 4 shows a series of posts from our dataset that appeared multiple times due to being shared by the accounts we were exploring. Each post

has some characteristics that have made them go viral, such as the emotional narrative of the post (discussed further in the next section) or their use of images (discussed in Section 6.3).

Social media, and sharing online, is thus a lifeline for many to find their lost and stolen pets:

"I think we would really struggle [without social media]. These people give me support as well as hopeful leads, or any sightings, or any events. It is a real network. It must've been awful if a dog had gone missing before social media really. Because no help from the police. No wider help, it would've just been local people or word of mouth really" (Sarah, West Mercia).

Despite the importance of social media in the search for a lost pet, others told of their negative experiences of using social media:

"Unfortunately, because of the mass sharing that we do, I mean I'm personally in about 300 different groups, so I'm probably on Facebook six to eight hours a day every day, sometimes more. Unfortunately, it's very frustrating. Facebook has some policy that if you're sharing too much or posting too much in a short period of time, we end up getting Facebook bans" (James, West Yorkshire).

James' talked about the limits of Facebook through the number of posts one user can share per day. This raises a key point, in making lost pets present online, the number of posts shared, and ephemeral nature of social media, may make it difficult to make specific pets present. A further issue is that not all posts are shared widely. In our data 5136 posts received 0–5 shares. Most of these posts show the gritty work of making dogs present in virtual space, such as replying and tagging individuals:

"@alexmorgan13, you know that dogs are not 'property' so when Ivy was stolen and we were told it was the same as the theft of a phone you can imagine our distress. Please share if you can and help us find the missing part of our family x" (@IvyStolen, 02/21).

This work involves using formatted posts and posting to individuals who have an interest in lost and stolen dogs (particularly celebrities as shown above) and those who tend to share posts. This is often done in a thread where many of these posts follow on from a main post. The aim is to get someone famous to share the post as they have more followers, thus more people will see the post and become aware of the lost or stolen pet.

Despite these positives of the supportive online communities and groups, other participants raised concerns of doing online search/ing. Emma discussed issues in some of the groups she moderates:

"With any group you do get some members that have very opinionated opinions. I think one of the hard things is for any dog owner is for people to be a bit heartless in what they're saying. Because we've had some comments at the time, 'you're never getting the dog back', 'She's long gone', 'Get over it'" (Emma, Help Bring Daisy Home Group).

These issues can move from the realm of online social media into the real world:

"My middle child has been bullied at school over my campaign… She's 15, she's sensitive, and children in her class, obviously members of the group reading my posts, seeing our banners, and they started to bully her, they started to ridicule her in class, they mocked her" (Julia, Scotland).
"I have had fake ransom calls, I've had people ringing me up telling me that my dog's dead if I don't pay money, and it just gets out of hand" (James, West Yorkshire).

Extortion for a lost and stolen pet is not new (see Howell, 2000), and it uses economic means to play on the emotional relationship people have with their pets. Furthermore, another key issue for those trying to find their lost and stolen pets is the accessibility of social media, as

---

[6] Viral – The post to be seen by thousands across social media and receive a high amount of likes and shares.

Table 4
Posts with the highest number of shares in our dataset.

X Account	Post	Date	Number of Shares	Hashtags	Use of Image	Tagged Accounts Y/N
Ruskin147	Cabbage is home!	12/11/21 20:12	2418		Yes	N
MissingPetsGB	URGENT STOLEN – 11 young Puppies nearly 6 Weeks Old & Mum Dog #Stolen From $Bexleyheath #Kent On 24/12/2 Christmas Eve.	02/01/22 22:55	2161	#Stolen #Kent	Yes	N
scott_find	I can't do anymore of this life without my best pal-just one person could see and know something. I urge you, HUGE cash reward is waiting. You can go through someone else, I don't even ever have to know who you are. I just want him home Please – Call in confidence.	09/01/22 22:13	2153		Yes	Y
FindKobe	I'm KOBE. Please could I ask you to help me? My mum cries every morning & night. I have little people at home who love me & a big sister I miss so much. I don't know where I am & how to get home. I lived in a place called Sevenoaks. If you see me can you tell my mum where I am?	30/09/19 14:12	1988		Yes	N
IvyStolen	Ivy and her big brother went everywhere together, until she was stolen on the 20th of January 2021. Please follow and share Ivy's details so we can find her and they can play together again. #dogs	07/02/21 14:03	1431	#Dogs	Video	Y

Rachel states:

> "I wasn't on Facebook at all or any sort of social media I didn't really, you know, I didn't know what to do" (Rachel, Thames Valley).

For Rachel, not being on Facebook presented a barrier to being reunited with her pet. She relied solely on help from DogLost to make the loss of her pet present online. This raises broader concerns around the accessibility of the internet and the prominence of the internet as a place for search/ing for a lost and stolen pet.

6.2. Emotional geographies of online search/ing

The posts shared on social media and the interviews with participants were all deeply imbued with emotions, from hope and fear, to suffering and joy. These emotions where shared in nuanced ways in the posts by directing them to 'you', the reader, to the missing pet out there, and to those who had stolen the pet. By far the most common narrative of the posts were of dogs as family members and loved ones:

> "I'm KOBE. Please could I ask you to help me? My mum cries every morning & night. I have little people at home who love me & a big sister I miss so much. I don't know where I am & how to get home. I lived in a place called Sevenoaks. If you see me can you tell my mum where I am?" (@FindKobe, 09/19, Shares – 1988).

This post, from Table 4, is written to the X community, pleading for help. The narrative is as if Kobe has written the post, like the accounts on Bunster or Catster (DeMello, 2012; Schally and Couch, 2012). The emotional narrative is what has made this post receive many shares. It shows an anthropomorphic telling of the pet's subjectivities and emotional experience. The author of the post positions the human companions as parents (Charles, 2016) and places themselves as 'out-of-place' from the home (Power, 2008). The next post describes the lost pet as a best friend:

> "5 months ago my best friend disappeared. Words just can't convey how I feel anymore Dex I'm so sorry we haven't found you yet. We're still here working everyday to find you, we love you so much. Your pillow is still in your spot on my bed waiting for you. #GetDexterHome" (@getdexterhome, 06/21, Shares – 574).

Dexter, the missing dog, is represented as a best friend and companion. The post is written directly to Dexter, and by positioning Dexter's pillow and bed as 'waiting' the post draws on the tangibility of their absence (Maddrell, 2013). This post is powerful in sharing the sadness of the loss of the pet and emotional impact on the human companion. One post from Table 4, shows the impacts on other pets in the home:

> "Ivy and her big brother went everywhere together, until she was stolen on the 20th of January 2021. Please follow and share Ivy's details so we can find her and they can play together again. #dogs" (@IvyStolen, 02/21, Shares – 1431).

This post is successful in drawing on the animal bond shared between the two dogs and the emotional relationship they share. The loss of time together and the important memories shared also played a role in getting across to the reader the impact of a pet being lost or stolen:

> "It's been more than seven long, hellish months and on top of this, we have missed seven precious months of Margie & Ruby's lives. Even if they come home tomorrow, we can never get those seven months back. That makes me so sad. #StolenMargieandRuby #Cornwall #dogs" (@FindMargieruby, 02/22, Shares – 309).

This post showed that it was the unknowingness, the ambiguity, of pets' lives and their welfare that caused them most distress (also see Allen et al., 2022). The dogs are physically absent but psychologically present for their families (Parr et al., 2016). This unknowingness is presented as mentally torturous. For others, unknowingness leads to grief:

> "A little girl & her dog, both grieving. Both pining for their stolen friends. Lizzie and Ria were stolen from their home on 5th dec. These two girls are beyond heartbroken. Pet abduction is so cruel. Please share, help, poster, support #findlizzieandria #petabduction #Christmas" (@beautys_legacy, 12/21, Shares – 294).

As well as grief, sadness, and sorrow, feelings of joy and elation arise when a dog is returned:

> "REX REUNITED [HEART EMOTICON] The best news to updated you all with! Rex was sold on after being stolen, and the buyer just recently saw his missing poster, did the right thing and contacted his owners April 2022 #puppy #REUNITED #PetTheftReform #Make-ChipsCount" (@SAMPA_uk, Shares – 254).
> "Some more incredible news! Jade & Bunty were stolen 18 months ago. Last night JADE was #REUNITED after new owner had her chip checked. [HEART EMOTICON] Thank you to the lovely lady who returned her. Gives us all such hope for other stolen pets. Bunty is still missing". (@MissingPetsGB, 04/22, Shares – 263).

These posts are centred on the help of the (online) community and the moral goodness of those who found and returned the pets. Along with the joy of seeing their pet returned is the hope that other stolen pets will be returned. The use of emotions and emotional narratives is important in online search/ing and is used to show the social and emotional impacts of the loss and to try to increase the likelihood of

posts being shared and the pet being found.

6.3. Pet's presence

6.3.1. Pet's bodily presence

Making absence present in online space is a challenge. As discussed, people become part of an online community full of emotions and grief, all with the aim of finding their lost and stolen pets. Human emotionality is a key tactic used in social media posts to help make pets present in online space, but the animals themselves, whilst lost or stolen, are far from 'shadowy presences' (Philo, 2005: p.829) in human presence-making. Far from it, the charismatic nature of pets is often utilised by humans to make their pets present in virtual space, in addition to sharing pets' experiences, subjectivities and agency, similarly to animal rescue charities (Schuurman, 2022). Aesthetic charisma (Lorimer, 2007) is one characteristic that those search/ing online for lost and stolen dogs place value on, as Andy explained:

"I've asked friends, friends I've never met, only through Facebook, I've asked why you fell in love with Murphy, and why do you support us because the papers want to know, and I've got no answer really. I just thought he's a good-looking dog. But everyone I've spoken to has said with the amount of pictures and videos that I shared, with me and the dog and my partner, and the family commitment and the love we have of our dogs, and people just fell into that, and the story of us, the happy life" (Andy, Murphy's Army).

Tanya discussed further how anthropomorphic images can be invoked with humour to help make present her dog Toby in her social media search:

"Every day I put a different picture on social media with something in his mouth, a picture riding on the wheelbarrow, that all the funniest pictures I could find … you had gun touting Toby, gardening Toby, and kept getting people to share it so they kept coming to the top of the social media stuff, so that was basically our campaign" (Tanya, Kent).

There was an attitude from some that they should: "just do every possible thing you can think of to keep the dog's face out there…" (James, West Yorkshire). Images of a pets' face and unique physical traits were shared a lot so potential 'finders'[7] would know the pet due to a unique patch of fur, ear shape, or eye colour. Fig. 1 shows an information flyer from a post by @FindKobe (seen also as a top post in Table 4). The flyer makes clear the distinctive nature of Kobe's visual appearance and the emotional value of Kobe to the family. The human understanding of Kobe's visual qualities, their aesthetic charisma (Lorimer, 2007), is made clear. The use of Kobe's aesthetic charisma, and the anthropomorphic narrative, bring Kobe's agency to the fore and create a valuable digital encounter (Turnbull et al., 2020a, b) that makes Kobe present online.

Fig. 2 shows a flyer from a X post about Scott, a missing dog (see post in the top shares in Table 4). As well as the depth of information on the account of Scott going missing and the subsequent search/ing (Parr et al., 2016), Scott as a dog himself, is shown through the images. Scott's aesthetic aspects of a full tail and white moustache and beard are made prevalent as his distinguishing features as well as a picture of Scott seemingly smiling. In addition, Scott's nonvisual aspects are described as neutered and microchipped. The significance of Scott being neutered is that it tells the potential thieves that Scott has no breeding potential and thus increases the chance he might be returned. Scott's body is thus placed a not useful to the thieves due to his inability to reproduce. By making present Scott's body, the post positions Scott as not just another missing or stolen dog, but as an individual. The post affectively draws on the images of Scott and the search narrative to construct Scott's story

---

[7] Finder refers to a member of the public who finds a lost or missing dog.

Fig. 1. Post from @FindKobe (Shares – 1135).

and make his absence present in social media (Maddrell, 2013).

Furthermore, participants discussed how making their pet's bodies, and their physical characteristics, present during online search/ing is important, but temporally difficult if the pet has been missing for a long period of time:

"Still Missing it's nearly March, Ivy was STOLEN from London NW1 in January. At 8 months she's still a puppy, and may be thinner now than in our pictures. We are still searching #CAMDEN, #KENTISH-TOWN, #KINGSCROSS and surrounding areas. If you see her call 999" (@IvyStolen, 02/21, Shares – 312).

This post shows the potential unknowingness of pet's bodies due to loss over time. This ambiguousness is a site of worry (Parr et al., 2016) and is expressed through continued hope of reunification. But for others, making the public aware of their animals' embodied differences was also important in creating urgency in their online search, as one X account shared:

"#lostdog SUE #DEAF #ELDERLY #CockerSpaniel missing #Norfolk EAST ANGLIA … 2/22 Female/elderly COCKER / white chin/ white fleck on chest and white tips on feet/grey under nose CHIPPED Deaf, friendly & senile" (@MissingPetsGB, 02/22, Shares – 182).

Here we get a sense of Sue's embodied differences through disability. In this account disability is equated to vulnerability, situating a pet as dependent on their human companion and carer. Sharing information on age and disability helps create a sense of urgency throughout these accounts. Furthermore, the use of the phrase 'senile' removes agency from the pet as being able to look after themselves. This post uses tropes of disability to position their lost and stolen pet as valuable only to their carers rather than broader commodity chains. Sharing images of the lost and stolen pet's is important as it places greater the pet's bodies into the search. Posting images can help show what is unique about the pet's bodies, their aesthetic charisma, and can draw on anthropomorphic and

Fig. 2. Flyer from post by @scott_find (Shares – 2153).

emotional images to create an affective digital encounter.

6.3.2. Pets' agentic presence

In the search for lost and stolen pets online, some human companions attempt to make their pet's agency and personhood present online. This is important in situating the pet's characteristics and personality into the search. Like Schuurman's (2022) rescue dog charity websites, the idea is that the animal is not just imagined, but a sentient being with agency and subjectivity. As one post shared:

> "Ivy was stolen on the 20th of January from London (UK) NW1, she has very distinctive markings, a gentle nature and her family is desperate to find her, they are lost without her. If you have any information please call …" (@IvyStolen, 02/21, Shares – 820).

The gentle nature of Ivy is brought to the fore alongside her visual appearance. Ivy's gentleness can be seen as a form of attachment between human and animal and a reason why the family is desperate for her return. As well as more gentle aspects of animal nature, many more draw on animals as feeling scared or frightened:

> "#LostDog #Alert MALTEASER IS SCARED SO PLEASE DO NOT APPROACH Female Cockerpoo Brown and Curly (Age: Young Adult) Missing from Lechlade / Buscot area … escaped from garden whilst visiting friends, GL7 area, Southwest on Sunday, 31st October 2021 #DroneSAR #MissingDog" (@sar_dogs, 10/21, Shares – 97).

The feelings of being scared or frightened equates to the pet being 'out-of-place', outside of the home or constructed animal space (Philo and Wilbert, 2000) created by their human family. Reporting these feelings helps create urgency to the post, as seen in this post of about a lost or stolen rescue dog:

> "MISSING PUPPY *CHIEF* #Harby #Notts #NG23 Owner post – "Urgent Our New very frightened Romanian rescue has escaped. Hasn't got a collar on as was too afraid to have this on. Pic taken the day before I got him. Please do not approach call asap" (@MissingPetsGB, 09/21, Shares – 1207).

Urgency is present through the post due to the scared nature of the dogs. The post draws on tropes of rescue dogs as scared of people, imaginations of their past, and dog's place being in the home (Schuurman, 2021). What this section has shown is the variety of ways that humans describe their pets in online posts in an attempt to make their pets and their posts present in virtual space. Describing the missing or stolen pet's characteristics, and sharing images of dogs, helps make them present in virtual space. In doing so, the authors of the posts effectively show what is unique about their pet, and individualises them, helping them stand out in social media.

6.4. Guidance for using X to find lost and stolen pets

Our findings can be used to influence the approach organisations, groups, and individuals take in their own posts, in the guidance they provide to others, and in creating a template for the public use. Whilst there is a risk that posts will become formulaic, and individuality will be lost, we recognise that the approaches used here all combine to make pets present in virtual space. In Table 5, we put forward instructions for considering various post components for those search/ing for lost and stolen pets.

7. Conclusion

This research has shown how people attempt to overcome the loss or theft of a pet through online sharing social media posts search/ing for their pet. When search/ing online for a lost or stolen pet people attempt to make their pets present in virtual space. They undertake a series of tactics to aid in making their pets present online and eventually lead to their reunification. These tactics include the use of emotional language, the written narrative of the posts, the use of pictures and video, sharing information on the pet's characteristics and 'personality', the use of hashtags, and community practices of sharing to make a post 'go viral'. It is worth noting however, that going viral by design is unlikely, but there are chances of being more visible as outlined above. The story of the theft or loss of the pet can also make a difference, and sometimes lead to social media effectiveness being boosted by TV appearances or national coverage. There is also an element of luck and wider gritty work (tagging celebrities and other accounts), but there are also barriers to social media such as bans when over posting, technical difficulties and access for certain people, and having to write posts in a performative way. Ultimately, in creating and sharing stories, people connect with others with shared experience and the wider online community through a shared sense of hope for reunification. Online search/ing strategies become useful tactics as more official police help is minimal (Allen et al., 2022). However, this places the onus on individuals to put their time and energy into search/ing, and as we have shown, this has an emotional impact.

This paper speaks to a more-than-human reconfiguration of absence and presence by firmly positioning animals within human lives. Whilst the animals were not physically present in this research (we interviewed humans and analysed online posts) their physical absence was all-consuming (Maddrell, 2013; Parr et al., 2016). In the talk of absence, pets were firmly present, shaping the conversation. In posts people attempt to make their pets' physical and emotional characteristics present in an online space that is ephemeral. To do so relies on human understandings of what is important about their lost pet. This paper thus adds to the animal geographies literature through work on pet loss and human-animal relationships, showing that a pet going missing or stolen is an event full of emotions. In addition, the qualitative use of social

Table 5

Instructive table for effective posting in attempting to reunite owners and their lost and stolen pets.

Audience	Who is the audience of the post?	Successful posts show a clear audience that is addressed, whether this is X users more generally, people within a specific postcode, or those who have taken a dog.
Details	Make sure you use your pet's name. Think about what personal details to share in the post that will help convey the emotional relationship between the lost pet and yourself. Further identifying features include breed, age, sex, microchip presence, health, and neuter/spay status.	Successful posts show a clear human connection to their pet by showing what makes them unique.
Hashtags	Choose hashtags that fit clearly to your post.Are you trying to build a following around a new hashtag (a specific pet) , or connecting with those who already seek out established hashtags? Make sure your hashtag is not too generic but also not too specific that it reduces the likelihood of those seeing the post.	Successful posts do not use multiple hashtags but are selective so that the narrative and audience are clear.
Language	The language of your post will rely on its audience. Consider who you are writing to, the X community, the lost pet themselves, those who may potentially have your pet, or those in charge of government policy.	Successful posts use clear but emotive language. They may speak as the human companion or the pet themself, and clearly direct their narrative to their audience.
Location	Virtual space is global – the town, city, county or first part of a postcode where your pet was last seen can help focus the search. If made into a hashtag, the post can be found and seen by those interested in geographic locations, rather than lost and stolen pets.	Successful posts include where the pet went missing or was stolen from. Include this in a flyer, image, or hashtag.
Photographs	Consider using a photograph that clearly shows your pet. Be selective in your choice of photography, do you want to show the 'cute' side of your pet, or a photograph that shows unique visible features.	Successful posts use photographs, flyers, or videos of the missing pet. This helps make the pet clear in the narrative and individualises them.
Tagging Accounts	Consider tagging relevant X accounts that are more likely to share your post. Consider tagging local news and interest accounts.	Successful posts may tag users into their posts but does this to a minimum. Tagging should be used selectively and perhaps follow in a thread rather than on the original post.
Verification	The "Blue checkmark" verification was once a badge of authenticity, largely used to distinguish notable accounts including celebrities. This is now only available to X Premium subscribers.	Since October 27, 2023, X Premium has offered two tiers of subscription: Basic and Premium + . According to X Help Center this 'elevates quality conversations on the platform' (X Corp, 2023).

media posts is a unique approach to exploring human-animal relationships. As an underused resource in animal geographies social media data can be a useful tool to triangulate with other multispecies methods.

There are wider points that should be addressed in search/ing for lost and stolen pets online. First, is the unequal access to Facebook and X, and people not having the time or expertise to make their pets present in virtual space. Second, is the level of competitiveness that can lead to tensions between voluntary organisations, businesses, and charities. Third, are the emotional impacts of having limited success online. Some accounts gain hundreds or thousands of shares for their posts and dominate the online landscape. This can have a negative impact on smaller accounts, and those looking for their own pets via personal accounts. For many the quest for reunification is ongoing, lasting weeks, months or even years, filled with resilience, perseverance, and community building to do everything possible to improve the chance of being reunited.

CRediT authorship contribution statement

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Daniel Allen is a patron of SAMPA (The Stolen and Missing Pets Alliance) and the author of three pet theft reform government petitions. We received no incentives from SAMPA for the completion of this work.

Data availability

The data that has been used is confidential.

Acknowledgements

References

Allen, D., Arathoon, J., Selby-Fell, H., 2022. Experiences of dog theft and spatial practices of searching. The Geographical Journal 188 (4), 518–533. https://doi.org/10.1111/geoj.12474.

Allen, D., Peacock, A., Arathoon, J., 2019. Spatialities of dog theft: A critical perspective. Animals 9 (5), 209. https://doi.org/10.3390/ani9050209.

Allen, D., Wyatt, T., (forthcoming). Non-human animals as property: what this means when companion animals are stolen. In: Hunnicutt, G., Twine, R., Mentor, K. (Eds.), Violence and harm in the animal industrial complex: human-animal entanglements. Routledge, London.

Ash, J., Kitchin, R., Leszczynski, A., 2018. Digital turn, digital geographies? Prog. Hum. Geogr. 42 (1), 25–43. https://doi.org/10.1177/0309132516664800.

Barua, M., 2016. Lively commodities and encounter value. Environ. Plan. D: Soc. Space 34 (4), 725–744. https://doi.org/10.1177/0263775815626420.

Bazeley, P., Jackson, K., 2013. Qualitative data analysis with NVivo (2nd Edition). Sage.

BSA (2017) Ethics guidelines and collated resources for digital research. Available at: https://www.britsoc.co.uk/media/24309/bsa_statement_of_ethical_practice_annexe.pdf.

Boss, P., 1999. Ambiguous loss: Learning to live with unresolved grief. Harvard University Press, Cambridge, MA.

Buller, H., 2014. Animal geographies I. Prog. Hum. Geogr. 38 (2), 308–318. https://doi.org/10.1177/0309132513479295.

Buller, H., 2015. Animal geographies II: Methods. Prog. Hum. Geogr. 39 (3), 374–384. https://doi.org/10.1177/0309132514527401.

Buller, H., 2016. Animal geographies III: ethics. Prog. Hum. Geogr. 40 (3), 422–430. https://doi.org/10.1177/0309132515580489.

Charles, N., 2014. 'Animals just love you as you are': experiencing kinship across the species barrier. Sociology 48 (4), 715–730. https://doi.org/10.1177/0038038513515353.

Charles, N., 2016. Post-human families? Dog-human relations in the domestic sphere. Sociol. Res. Online 21 (3), 83–94. https://doi.org/10.5153/sro.3975.

Collard, R.C., Dempsey, J., 2013. Life for sale? The politics of lively commodities. Environ. Plan. A 45 (11), 2682–2699. https://doi.org/10.1068/a45692.

Cutt, H., Giles-Corti, B., Knuiman, M., Burke, V., 2007. Dog ownership, health and physical activity: a critical review of the literature. Health Place 13 (1), 261–272. https://doi.org/10.1016/j.healthplace.2006.01.003.

DeLyser, D., 2014. Tracing absence: enduring methods, empirical research and a quest for the first neon sign in the USA. Area 46 (1), 40–49. https://doi.org/10.1111/area.12076.

DeMello, M., 2012. Identity, community and grief: the role of bunspace in human and rabbit lives. In: DeMello, M. (Ed.), Speaking for Animals: Animal Autobiographical Writing. Routledge, pp. 115–129.

DeMello, M., 2018. Online animal (auto-)biographies: what does it mean when we "Give Animals a Voice?". In: Krebber, A., Roscher, M. (Eds.), Animal Biography: Re-Framing Animal Lives. Palgrave, pp. 243–259.

Dunne, J.H., von Benzon, N., Whittle, R., 2022. Facebook as a platform for collecting women's birth stories: supporting emotional connections between researchers and participants. Emot. Space Soc. 42 https://doi.org/10.1016/j.emospa.2021.100863.

Fletcher, T., Platt, L., 2018. (Just) a walk with the dog? Animal geographies and negotiating walking spaces. Soc. Cult. Geogr. 19 (2), 211–229. https://doi.org/10.1080/14649365.2016.1274047.

Frers, L., 2013. The matter of absence. Cult. Geogr. 20 (4), 431–445. https://doi.org/10.1177/1474474013477775.

Gibbs, L., 2020. Animal geographies I: hearing the cry and extending beyond. Prog. Hum. Geogr. 44 (4), 769–777. https://doi.org/10.1177/0309132519863483.

Gibbs, L., 2021. Animal geographies II: killing and caring (in times of crisis). Prog. Hum. Geogr. 45 (2), 371–381. https://doi.org/10.1177/0309132520942295.

Gillespie, K., Collard, R.C., 2015. Critical Animal Geographies. Taylor & Francis.

Greenebaum, J., 2004. It's a dog's life: elevating status from pet to "fur baby" at yappy hour. Soc. Anim. 12 (2), 117–135.

Harris, L.K., 2018. Dog theft: a case for tougher sentencing legislation. Animals 8 (5), 78. https://doi.org/10.3390/ani8050078.

Hodgetts, T., Lorimer, J., 2015. Methodologies for animals' geographies: cultures, communication and genomics. Cult. Geogr. 22 (2), 285–295.

Home Office, 2021. Pet theft taskforce policy paper. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1014947/Pet_Theft_Taskforce_Report_GOV.UK_PDF.pdf.

Hovorka, A.J., 2017. Animal geographies I: globalizing and decolonizing. Prog. Hum. Geogr. 41 (3), 382–394. https://doi.org/10.1177/0309132516646291.

Hovorka, A.J., 2018. Animal geographies II: hybridizing. Prog. Hum. Geogr. 42 (3), 453–462. https://doi.org/10.1177/0309132517699924.

Hovorka, A.J., 2019. Animal geographies III: species relations of power. Prog. Hum. Geogr. 43 (4), 749–757. https://doi.org/10.1177/0309132518775837.

Howell, P., 2000. Dog-stealing in Victorian London. In: Philo, C., Wilbert, C. (Eds.), Animal Spaces, Beastly Places. Routledge, pp. 35–55.

Irvine, L., Cilia, L., 2017. More-than-human families: pets, people, and practices in multispecies households. Sociol. Compass 11 (2), e12455. https://doi.org/10.1111/soc4.12455.

Kitchin, R., Linehan, D., O'Callaghan, C., Lawton, P., 2013. Public geographies through social media. Dial. Hum. Geogr. 3 (1), 56–72. https://doi.org/10.1177/2043820613486432.

Lorimer, J., 2007. Nonhuman charisma. Environ. Plan. D: Soc. Space 25 (5), 911–932. https://doi.org/10.1068/d71j.

Maddrell, A., 2013. Living with the deceased: absence, presence and absence-presence. Cult. Geogr. 20 (4), 501–522. https://doi.org/10.1177/1474474013482806.

Meier, L., Frers, L., Sigvardsdotter, E., 2013. The importance of absence in the present: practices of remembrance and the contestation of absences. Cult. Geogr. 20 (4), 423–430. https://doi.org/10.1177/1474474013493889.

Morrow, O., Hawkins, R., Kern, L., 2015. Feminist research in online spaces. Gend. Place Cult. 22 (4), 526–543. https://doi.org/10.1080/0966369X.2013.879108.

Nast, H., 2006. Critical pet studies? Antipode 38 (5), 894–906. https://doi.org/10.1111/j.1467-8330.2006.00484.x.

Parr, H., Stevenson, O., Fyfe, N., Woolnough, P., 2015. Living absence: the strange geographies of missing people. Environ. Plan. D: Soc. Space 33 (2), 191–208. https://doi.org/10.1068/d14080p.

Parr, H., Stevenson, O., 2015. 'No news today': talk of witnessing with families of missing people. Cult. Geogr. 22 (2), 297–315. https://doi.org/10.1177/1474474014530962.

Parr, H., Stevenson, O., Woolnough, P., 2016. Search/ing for missing people: families living with ambiguous absence. Emot. Space Soc. 19, 66–75. https://doi.org/10.1016/j.emospa.2015.09.004.

PDSA, 2022. PDSA animal wellbeing report. Available at.

Pet Theft Awareness, 2022. The cat theft report, 2022. Available at: https://pettheftawareness.blogspot.com/2022/03/the-cat-theft-report-2022.html.

Pets4Homes, 2020. Pandemic pets: How Covid-19 affected pet sales and pricings during 2020. https://www.pets4homes.co.uk/pet-advice/pandemic-pets-how-covid-19-affected-pet-sales-and-pricing-in-2020.html.

Philo, C., 2005. Spacing lives and lively spaces: partial remarks on Sarah Whatmore's Hybrid Geographies. Antipode 37 (4), 824–833. https://doi.org/10.1111/j.0066-4812.2005.00529.x.

Philo, C., Wilbert, C., 2000. Animal Spaces, Beastly Places. Routledge.

Power, E., 2008. Furry families: making a human–dog family through home. Soc. Cult. Geogr. 9 (5), 535–555. https://doi.org/10.1080/14649360802217790.

Schally, J., Couch, S., 2012. Catster.com: creating feline identities online. In: DeMello, M. (Eds.), Speaking for Animals: Animal Autobiographical Writing. Routledge, pp. 115–129.

Schuurman, N., 2021. Encounters with a canine other: performing domestication in transnational animal rescue and rehoming. Soc. Cult. Geogr. 22 (5), 686–703. https://doi.org/10.1080/14649365.2019.1619820.

Schuurman, N., 2022. Imagining home: performing adoptability in transnational canine rescue and rehoming. Humanimalia 13 (1), 79–110. https://doi.org/10.52537/humanimalia.11074.

Searle, A., Turnbull, J., Adams, W.M., 2023. The digital peregrine: a technonatural history of a cosmopolitan raptor. Trans. Inst. Br. Geogr. 48 (1), 195–212. https://doi.org/10.1111/tran.12566.

Selby-Fell, H. & Allen, D. (2021) Dog theft: What can we infer from the evidence so far? Available from: http://www.pettheftreform.com/ research [Accessed 23rd April 2024].

Sparks, H., Collins, F.L., Kearns, R., 2016. Reflecting on the risks and ethical dilemmas of digital research. Geoforum 77, 40–46. https://doi.org/10.1016/j.geoforum.2016.09.019.

Turnbull, J., Searle, A., Adams, W.M., 2020a. Quarantine encounters with digital animals: more-than-human geographies of lockdown life. J. Environ. Media 1 (1), 1–6. https://doi.org/10.1386/jem_00027_1.

Turnbull, J., Searle, A., Adams, W.M., 2020b. Quarantine urban ecologies. Cult. Anthropol. Editor's Forum: Covid-19 https://culanth.org/fieldsights/quarantine-urban-ecologies.

Twitter, 2022. Twitter privacy policy. Available at: https://twitter.com/en/privacy#twitter-privacy-3.1.

von Benzon, N., 2019. Informed consent and secondary data: Reflections on the use of mothers' blogs in social media research. Area 51 (1), 182–189. https://doi.org/10.1111/area.12445.

Wilkinson, C., von Benzon, N., 2021. Selecting and analyzing publicly generated online content. In: von Benzon, N., Wilkinson, S., Wilkinson, C., Holton, M. (Eds.), Creative Methods for Human Geographers. Sage, pp. 325–336.

Wolch, J., Emel, J., 1995. Guest Editorial: Bringing the animals back in. Environ. Plan. D: Soc. Space 13 (6), 632–636. https://doi.org/10.1068/d130632.

Wolch, J., Emel, J., 1998. Animal Geographies. Verso.

X Corp, 2023. About X Premium. Available at: https://help.twitter.com/en/using-x/x-premium.