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**Pets and people: Information experience of multispecies families**

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# Abstract

**Purpose**: This paper introduces more-than-human perspective in information behaviour and information experience studies. The purpose of this paper is to contribute to understandings of the concept of multispecies families by exploring their significant dimensions related to information phenomena involving multiple contexts, situations, spaces, actors, species, and activities.

**Design/methodology/approach**: Based on previous research in human information behaviour and human-animal studies, our ideas around information experience of multispecies families are developed conceptually. The paper builds both on previous empirical findings about human information behaviour and the new domain of information experience.

**Findings**: The paper proposes a holistic approach both to information phenomena in everyday living with companion animals including embodied, affective, cognitive, social, digital, and objectual information that shapes pet care and management practices, and to the context of study, including work, domestic, and leisure aspects of multispecies family.

**Originality**: This study broadens our understanding of information phenomena in multispecies families, and so contributes to the field of information experience. It also provides insights for animal welfare scientists to help them understand the information behaviour of humans who are responsible for keeping and caring for animals.

**Keywords**: information experience, information behaviour, multispecies family, more-than-human, everyday life, companion animals

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# 1 Introduction

In information research we are mainly concerned with the human world and the exploration of the information experiences, behaviours, and skills of people, and their dependents (e.g., children, clients, patients, staff, and students). Humans share their everyday lives not only with other humans, though, but also with companion animals (pets). Any species can be a pet, as the term is applied based on human perception of the role and value of the animal concerned, and not on an intrinsic quality of the animal per se (Farnworth, 2018). Pets are considered to play a primarily emotional and social role within the family or community and are therefore distinct from other domestic animals such as working or production animals. From an animal welfare point of view, people should keep species that they can provide with ‘a good life’ (New Zealand Companion Animal Conference, 2021), such as traditional companion animals (e.g., cats, dogs).

The population of pets has increased dramatically worldwide (AVMA, 2018; Gates, et al. 2019; PDSA, 2020) and although some view pets as subjects, things that provide a useful service (e.g., a person’s property or hobby), increasingly pet guardians (carers) view them as similar to people (objects), with whom they have valuable and rewarding relationships (e.g., best friends, children, or family members) (PR Newswire, 2015; Bures, 2021). Human-animal relationships have evolved considerably over the centuries (Fox & Gee, 2019). People share beds with their pets and are comfortable with their pets’ presence during very personal and private times. They throw birthday parties for pets and often welcome their participation in family celebrations (Shannon-Missal, 2015; Irvine and Cilia, 2017). In recent years, carers have applied a multitude of ways to provide for some, or all, of the pets’ needs and look after them on a day-to-day basis (e.g., interactive pet cameras to communicate and play with pets when they are alone at home). This co-habitation has not only affected housing choice and design but also has changed the city itself (Chen et la. 2020; Yin et al., 2020). Pets are allowed into and are entertained in social spaces such as in parks, cafes, tours, and hotels, serviced by pet equipment such as waste cans, water supplies, kennels and pet parkers. All around the world, organisations are representing and legislating a diverse range of animal welfare perspectives. *Companion Animals New Zealand Conference* 2021 “Towards A Good Life”, recognised pets as sentient beings and focused on exploring their positive, pleasurable and negative feelings.

In other words, many people are experiencing becoming and maintaining family with animals. A multispecies family, variously termed as more-than-human family (Irvine & Cilia, 2017), and post-human family (Charles, 2016), is a family where pets (an active non-human agency) are incorporated into the family within a caring, parental relationship or as pack members (Power, 2008). The pet actively shapes the ways that family and home are lived in the everyday and participates in family activities, places, and mutual experiences (Fox, 2006; Power, 2012). Here, the terms ‘multispecies’, ‘more-than-human’ and ‘posthuman’, are used consciously and interchangeably to acknowledge the interconnectedness of humans and other forms of life and the involvement of animals in human everyday life (Wolf, 2010; Locke, 2018). In recent years, such ideas have gained immense popularity in the humanities termed an ‘animal turn’, a shift from anthropocentrism (the assumption of human ascendancy) to zoocentrism (the recognition of animals as full or partial subjects) (Fox, 2006; Irvine and Cilia, 2017). This approach blurs the boundaries between nature and society, humans and animals and opens new perspectives with which to explore modes of being and becoming in the contemporary world (Danby et al., 2019).

Various aspects of multispecies family have been studied across a range of disciplines (social sciences, religion, politics) and recently in many new contexts including leisure (Danby et al., 2019; Nottle and Young, 2019), event experiences (Dashper and Buchmann 2019), memories in everyday life (Lewis and Berntsen, 2020), social work (Laing, 2020), and domestic violence (Swemmer 2019). This has redefined notions about meaning, power, agency, othering, and knowledge-production. Scholars in information science try to understand the human world through a focus on people’s access to and engagement with information in all its manifestations (Cibangu, 2015). There are many information objects and activities within human shared lives with pets (e.g., memories and previous experiences of pet keeping, materials and physical objects related to a pet, pet health records and personal notes, the pet’s online profile and pictures, or people and individuals who know and interact with the pet). This kind of everyday information engagement by carers will form their experiences, knowledge and skills, perceptions of and attitudes toward their pets, but to date, information engagement in the everyday life of multispecies families has not received adequate consideration in information science.

In this paper, we argue that to understand fully human information behaviour, we need to recognize the more-than-human claim that humans and animals inhabit the same spaces with overlapping agencies and experiences (Hamilton and Taylor, 2019). This paper attempts to present an introduction to some key ideas in this research area, including: How can we understand and represent the information experienced in multispecies families? What does it mean to bring the routines of everyday life with pets into the information behaviour research? And broadly speaking, what are the implications of multispecies context for the information behaviour field?

We first discuss conceptualisations of human information experience generally, before moving on to a consideration of animal related information experience that involves multiple situations, spaces, actors, species, and activities; and then present a context sensitive representation of information engagement in everyday life with animals.

# 2 Human Information Experience

To study people’s engagement with information, information science researchers have taken on board a wide range of different concepts, theories, and approaches over time that reflect the multidimensional aspects of information phenomena (see reviews of Savolainen, (2007), Hepworth et al. (2014), Gorichanaz (2018), and Hartel (2019)). They discuss information behaviour frequently in terms of information seeking and use, information practice, everyday life information seeking, and information experience. However, the term information behaviour achieved widespread popularity and scholars continue to use ‘information behaviour research’ as an umbrella term to frame other ideas. A recent idea in the field using a phenomenological orientation is ‘information experience’. Information experience is an increasingly common concept proposed as a holistic approach to explicitly examine the human experience of information interactions, including an individual’s perceptual, cognitive and embodied experience (Hoyte 2019). The first milestone in information experience research was the publication of *Information Experience: approaches to theory and practice* by Christine Bruce and her team (2014) which widened the field of information behaviour by establishing information experience as both a research object and a new domain of study. The second major reference is the recent book of Tim Gorichanaz (2020) entitled *Information Experience in Theory and Design*.

Hughes (2014) defines information experience as “a complex of information experiences, as contextualized instances of using information. It integrates all information-related actions, thoughts, feelings, and has social and cultural dimensions” (p. 34). As a phenomenon (research object), information experience examines human–information interactions at the moment of their unfolding (Gorichanaz, 2020) (e.g., a pet guardian's experience with a new pet health app). As a research approach, it offers a toolkit or lens for examining any aspect of the information chain (e.g., sources, spaces, systems, structures, …), which span the gamut of practices with information, from creation to understanding (Gorichanaz, 2020) (e.g., the informational life word of a carer living with his senior dog).

As the information experience lens has developed, authors have recognized it as a holistic view of human information interactions involving combined attention to mind, body and spirit, in other words, Information-as-it-is-experienced (Lupton, 2014). Therefore, anything could be informative to make the everyday life possible: emotions, cognition, body, relationships, places, textual and material objects. Lloyd (2014) pays particular attention to the role of the body in people’s information experience. Davis (2015) in her thesis about mothers’ information behaviour defined information experience as a combination of three dimensions: people, context, and information. Pollak (2015) explored information experiences in work, leisure and everyday life. Pollak concluded that humans instinctively use a complex network of intangible and informal sources and channels, including personal and community experience, to satisfy information needs. She proposed a definition for ‘experiential information’ (information as experience): “sensation, emotion, fact, skill, knowledge, or understanding acquired or otherwise derived from interactive participation in a social or solitary context, or occurring at some point thereafter as a result of contemplation and reflection” (p. 255). In a literature review of research about information experience, Savolainen (2019) proposed two aspects to information experience which are intertwined: ‘experiencing sensory (embodied) information’ and ‘experiencing cognitive–affective information’, where experiencing means both ‘receiving’ and ‘interpreting’ the information. Here embodied information comes from outside a person (e.g., smelling a change in dog’s breath), while cognitive–affective information comes from within (e.g., remembering recent changes in a dog’s behaviour). Most studies discuss each of these aspects as if they are discreet concepts, outwardly physical vs. inwardly emotional, but this is a mistake (Costello and Floegel, 2021). A good example could be when a dog carer seeks further veterinary examination as she senses her dog is in pain, and she knows the signs due to her childhood memories of living with dogs. So, as Savolainen (2019) discusses, by adopting an information experience framework scholar should attempt to understand how embodied information relates to experiencing cognitive-affective information.

Overall, literature focused on information experience emphasises context, interactions, and a holistic focus. As information experience integrates tangible (physical) and intangible (cognitive-affective) forms of information, it could be helpful to explore the many forms and activities of information in everyday life. Figure 1 is designed to better define information experience based on ideas from available literature. As a research approach the dimensions of information experience are:

* *Information*- the informational life world that could encompass anything in the eyes of the individuals or groups who experience it.
* *Interaction*- lived experiences of active and passive interactions with information (with whatever name it is called: information activities/ actions/ practices/ works).
* *Context*- a time-space container where information activities take place. This refers to temporal and spatial factors of the context of information experience that may contain different situations, networks and relationships.

We believe information experience, as defined by Gorichanaz (2020), is an appropriate framework through which to explore any aspect of the information shared between humans and animals which spans the gamut of interactions with information, from creation to understanding. It mainly attends to what phenomenology describes as lived experiences in everyday life (Bruce et al. 2014). Phenomenology is not just about humanity; it also speaks about animality and proves the subjectivity of nonhumans (animals) (Lestel, 2014). ‘Posthuman phenomenology’ provides ways to reveal significant dimensions of interpretation in the lives of animals (including human) (Lewis and Owen, 2019). To bring animals’ experiences into the field of information behaviour research we should explore interdisciplinary approaches to inhabit the world of animals and understand their ways of being and experiencing in the world. Hence, information experience could be a perfect lens in this context because it emphasises the multidimensional and holistic nature of engagement with information and is different in this respect from other information research paradigms (e.g., information behaviour, information practice, information literacy, information seeking and use). Unlike previous information behaviour research, which is limited to investigating how we need, seek, and search for information, the information experience perspective explores how we understand, use, and are shaped by information (Gorichanaz, 2020). So, it is possible to consider the nature of the animal-human relationship in information experience, which is crucial to gain knowledge of animal experiences (Dutton and Williams, 2004). With this view, phenomena such as the body language between humans and animals, can in fact be informative for both human and nonhuman and contribute to building understanding. Finally, we advocate for the integration of information experience as means to understand information that shapes the life-word of multispecies families.

In the following sections, we discuss the characteristics of information in the life of people living with pets, and the contexts of the multispecies family to explore how information experience contributes to their understanding of pet care and management practices, and shapes their lives.

External

Information

Context

Interaction

Information Experience

Internal

Temporal

Spatial

Passive

Active

Figure 1. components of information experience

# 3 Animal-related Information Experience

Based on dimensions of the information experience perspective and drawing on literature in the human–animal studies, in this section we present the different dimensions of information experience (i.e., information, interaction, and context) leading to a holistic and integrative representation of information phenomena in everyday pet care and management. In everyday multispecies life, individuals (both humans and nonhumans) encounter sundry facets of information and anything can be experienced as information and information interactions. In what follows the embodied, affective-cognitive, social, and digital information, comprising individuals’ passive and active informational interactions, that shape the information experience of a multispecies family are discussed.

In human-animal interactions there are mutual and dynamic exchanges of visual, vocal, olfactory, or tactile signals which transfer information between pet and carer and help them to understand each other and live together (Kiley-Worthington, 1984; Pongrácz, 2017; Pongrácz and Szapu, 2018). These could be seen as the corporeal expression or manifestation of information (Bates, 2018). There are many examples of embodying stores of information in human-pet life through what Bates (2018) has categorized as enacted information, expressed information, and experienced information. Both dogs and cats show interspecies communicative skills (Miklósi et al., 2005). They use physical modes of expression (e.g., body postures, and facial expressions), and vocalizations to communicate with human (Bennett et al., 2017; Petak, 2019). An example for embodied information could be a pet’s body language. When a cat’s tail is upright and wagging at the base, it is considered by carers as a play solicitation signal. Similarly, a cat’s eyes transfer information— a sudden dilation of the pupil could be due to fear, or another strong emotion. Animal vocalizations are highly informative for carers (Molnár et al., 2010; Pongrácz, 2017). It seems that by differentiating their barks, dogs become more adjusted to the human environment and vocalization has become a tremendously important component of social interactions between dogs and carers (Petak, 2019). For instance, when a dog is whining the carer experiences affective-cognitive information which may express the dog’s emotional state, such as fear, and the carer may decide to give additional attention to the dog or eliminate the fear factor. In this context, embodied information is also experienced by the nonhuman actors. Pets also read information from the bodily attitudes of their humans. Studies show that dogs and cats pay close attention to their human’s facial expression (Sanders, 1999). Our inability to talk with our pets and understand their minds should not necessarily be considered a barrier to including them in information research. Experiencing embodied information, an important aspect of information experience (Savolainen, 2019), could help us to consider the embodied and symbolic interplay between pet and carer as part of a larger network of information. Hamilton and Taylor (2017) describe embodiment and sensory studies as a way to involve animals as social actors both in relation to humans and in their own right. So, we can gather experiences related to animals’ (including human) bodies and things, senses, sounds or visual stimuli and the actions and interactions that produce important information in their shared lives.

There are also affective dimensions of engagement with information in the context of multispecies families. People, who share their everyday lives with pets sense emotional connections with them and experience a range of different emotions during their daily pet care activities. Also, pets have empathetic abilities and act in response to the emotions experiencing by their carer (Sanders, 1999). Franklin (1999) asserts that pets are animals that people acquire and treat the way they do infants and children (cited in Blouin, 2012). As affective information plays an important role in the information behaviours of parents (Fisher and Landry, 2007) families might have the same attitudes and behaviours towards their nonhuman member, while appreciating aspects that make pets different from people (see Fox 2006, and Travitz, 2017). Heinström (2014) distinguished information experience from other concepts in information research by its particular emphasis on affective elements as an integrated part of experience. There are many associated positive and negative feelings within parental information behaviour. Parents have information needs related to obtaining reassurance to ensure that they are doing a ‘good job’ or to reduce uncertainty (Walker, 2012). Also, family information management has socioemotional motivations and considerations. Household-related informational activities can be a way of expressing support for family members, and emotional factors impact how families interact with this information (Sannon et al., 2020). Acknowledging that (1) humans and animals both feel and purposefully express feelings in their shared experiences; and (2) an information experience framework brings ‘experiencing cognitive-affective information’ into consideration (Savolainen, 2019), moods, emotions and feelings of both carers and pets could be considered as important factors that shape their informational life world.

Everyday life is not limited to domestic spaces, but is enacted in community spaces, and so the informational life world is shaped by interactions that exist outside of households but are related to the household and co-ordinate its work (McKenzie and Dalmer 2020). A study conducted in Australia and America, found that pet carers were more likely to get to know people in their neighbourhood than others. They received one or more types of social support (i.e., emotional, informational, appraisal, instrumental) via people they met through their pet (Wood et al. 2015). By considering the social interactions in neighbourhoods and other spaces that are facilitated by having a pet (Bulsara et al., 2007; Wood et al., 2015), we can understand animal-related information emerges not only in the households and family life but also in broader contexts, such as dog parks, pet-related social events, vet clinics, grooming centres, training centres, pet shops, and the neighbourhood. McKenzie and Dalmer (2020) found that consideration of both local and translocal in everyday life information behaviour is an affective strategy to bring invisible information activities to light. Pet carers talk about their pet-related concerns and experiences with each other in places that are accessed occasionally and regularly. These are places where it is common to know the name of the pet, but not the carer; people socialize with others with whom they often have little or nothing in common and the pet becomes a vehicle for social interaction and information exchange (Vincent, 2019). Information enacted in pet carers’ social circles informs their values, attitudes, and beliefs, which in turn impacts their pet care and management behaviours (Philpotts et al., 2019).

In addition to pet carers’ interactions in real life (physical spaces), the widespread, frequent use of the internet and social media by pet carers is changing the way they engage with information in order to better care for and manage their pets. Pet carers use the internet and mobile applications to interact with their pet health providers and other carers, to seek different types of information and find out about pet-related services (King et al., 2018; Lai et al. 2021). With the global Coronavirus (COVID-19) pandemic, it is expected that the practice of turning to remote services has increased among pet carers. While there are numerous benefits associated with the easily accessible information found online as well as the opportunities to share and exchange experiences with broader audiences, there are also inherent risks associated with the internet: the impact of misinterpretation and misuse of online information for pet care management. There have been various examples related to this issue highlighted in the literature. Studies have investigated aspects relating to pet carers’ information seeking on the internet (Kogan et al. 2010; Kogan et al. 2018; Solhjoo et al., 2017); pet carers and social media (Oxley and Kogan, 2018; Kogan et al., 2019); and pet carers and ehealth literacy (Solhjoo et al., 2019). The evidence from these studies and others indicate that most pet-related online materials are above the average reading level of pet carers and so can be misunderstood (Taggar, et al., 2010; Royal, et al., 2018; Baxter and Viera, 2020). There are also widespread concerns about the accuracy, trustworthiness and usability of pet-related information available online (Hofmeister et al., 2008; Kogan et al., 2010; Solhjoo et al., 2018; Gates et al., 2019). Philpotts et al. (2019) stated that “these experiences occur within the home, drawn largely from the internet, media and marketing sources, and can be entirely unregulated and inaccurate, potentially playing a role in reducing the welfare of dogs [and other pets] living in homes” (p. 662). Turning to digital spaces has now progressed beyond merely seeking information and interacting with digital information online. Technologies have become embedded in multispecies’ everyday lives. Technology today has been shown to be useful for interactions between humans and pets, for monitoring pets, and training them (Hirskyj-Douglas et al., 2018). These technologies are the focus of Animal Computer Interaction (ACI), a field which seeks to understand the interactions between animals and computing technology within the contexts in which animals habitually live and socialize with members of other species, including humans (Mancini, 2011). In his book, Gorichanaz (2020) discussed the foundations of information experience not only from information behaviour field, but he also draws inspiration from Human-Computer Interaction (HCI) and experience-centred design frameworks. ACI has taken its main reference from HCI, which in turn has led to focus on studies of the user experience of animals to influence the design of information and communication services (Hirskyj-Douglas et al., 2018). So, we believe technology and digital information is another aspect of multispecies informational life world that could be better understood through an information experience approach.

Based on the interdisciplinary literature review, we identified the information we might experience in our coexistence with pets. In this context both human and nonhuman actors interact with these different types of information (e.g., embodied, affective, social, digital, etc.) to understand each other, undertake their activities, and live together. Exploring how they both experience these interactions could reveal different types of information activities (e.g., creation, acquiring, receiving, sharing, interpreting, sense-making, personal information management, and etc.), and different modes of information activities (e.g., passive/active, direct/indirect, etc.). However, many of these information activities might be less visible, to researchers and sometimes even to the individuals undertaking them (McKenzie and Dalmer, 2020). This is more complex when the life-world of animal actors are also considered in a research project. Pets do not talk or write about what is going on in their lives. But a more-than-human perspective could add potential for revealing subtle information interactions between humans and animals which do not occur through language (Hamilton and Taylor, 2017).

Context, a last component of the information experience approach that affects how the everyday life of multispecies families shapes and is shaped by information and information interactions will be discussed under the next heading. We address the type of situations encompassed by the more-than human approach in everyday life context, and suggest how investigations focused on this specific context can contribute to the information behaviour field.

# 4 Context in Animal-related Information Experience

As mentioned above, information experiences are inseparable from the purposes and contexts within which they occur (Bruce et al., 2014). Information related actions, thoughts, feelings of multispecies families are built on the context in which information practices take place. Therefore, identifying the context of multispecies families and the settings of their everyday practices is important for understanding their experience of information and information interactions. It is not easy to bound context for everyday life activities as opposed to academic contexts (Johnson, 2003; Courtright, 2007), especially when we want to focus on the whole context for more holistic views of information experience. However, several studies in information behaviour reveal some boundaries of context for everyday settings and examine their contextual factors, including concepts such as information grounds (Pettigrew, 1999), small-worlds (Chatman, 1999), information horizons (Sonnenwald, 1999), information landscapes (Lloyd, 2006), and immediate information spaces or personal information environments (Hartel and Thomson, 2011).

Hartel (2003) adopted the concept of serious leisure to explore the shades of meaning between the ‘work’ and ‘leisure’ contexts. Kari and Hartel’s (2007) study of everyday information behaviour introduced the neglected higher things in life, “meaning pleasurable or profound experiences, or activities that transcend the daily grind,” (p. 1131). And lower things include problem solving situations in everyday life which are neutral or negative in nature. They advocate for an approach that aims at integrating the two contexts, higher and lower things in life. Recently, Ocepek (2018) has advocated that LIS scholars consider everyday as the totality of lived experience, so all aspects of life are represented in the everyday. The context in which pet carers may engage with information can be in several discrete or overlapping situations in their work, leisure, and other everyday pet care practices. It can be through local spaces like home or a personal laptop, or organizations that exist outside the domestic life but co-ordinate its work (McKenzie and Dalmer, 2020), such as veterinary consultation sessions or pet training classes, and equally through less formal or banal spaces, such as internet chat forums, or daily dog walks. Their contexts are actively reconstructed by carers’ interactions (with people, animals, things, places) to create and share information that is required to meet all the daily needs of the pet, expand their relationship and live together (discussed as information landscape in Lloyd, 2014; Lloyd et al., 2013).

So, how to bound the context of everyday living with pets and taking care of them? Pets’ needs are complex and vary between individual pets and over time. Different campaigns, governments, and researchers have attempted to reinforce and educate carers on the responsibilities of pet keeping/caring (e.g., the UK’s Animal Welfare Act 2006; and Mellor et al.’s (2020) Five Domains model for animal welfare) and these efforts can be used as a basis to determine the range of different situations in the pet care context. In the UK, the Animal Welfare Act (2006) states the five welfare needs as: (a) Health – protection from pain and disease, and treatments; (b) Behaviour – the ability to behave naturally for their species e.g., play, jump, fly etc.; (c) Companionship – to be housed with, or apart from, other animals; (d) Diet – a suitable diet and the prevention of obesity; (e) Environment – a suitable environment to rest, exercise and explore. We should also be aware that pet carer practices are not just about the welfare needs of their pets but also focus on preventing the pet from negatively impacting other people and the environment. This includes proper waste disposal, noise control, not allowing the pet to stray or become feral, controlling reproduction, identification via tags and microchips, and licensing and leash requirements. The Five Domains Model was originally formulated in New Zealand in 1994 as specific guidance on how to evaluate an animal’s welfare (Mellor et al., 2020). Throughout its 25-year history, the model has been regularly updated and it now consists of ‘nutrition’, ‘physical environment’, ‘health’, ‘behavioural interactions’ and ‘mental state’. The fourth and fifth domains, which are not specified clearly in other models or legislation, relate to the subjective positive and negative experiences, emotions or feelings of pets which result from carers’ behaviours and their caring practices.

Dimensions of Daily Pet Care and Management

Healthcare

Nutrition

Environment

Recreation

Socialization

Emotionalization

Wellbeing

Management

Training

Pet welfare output

Pet welfare input

Higher things in everyday life

Lower things in everyday life

Figure 2. Context of everyday pet care and management practices

In Figure 2 we demonstrate the everyday life context of multispecies families as embedded in the various domains of companion animal welfare. The activities of taking care of pets such as providing healthcare, a safe environment, feeding, training, and licensing are considered inputs to animal welfare which affect the welfare outputs, activities that lead to rich emotional lives, leisure and positive activities, learning social life skills, socialization, and maintaining good mental and physical health. From the Kari and Hartel (2007) perspective of two spheres (higher and lower things in everyday life) welfare inputs (i.e., nutrition, physical environment, and health) could be considered as the lower, and more mundane things of everyday living with pets. The lower things are concerned with removing any negative impacts on pet welfare and provide an animal with ‘a life worth living’. All previous studies about information behaviour in pet keeping are related to this context (Kogan et al. 2010; Solhjoo et al., 2017). Equally, other domains of animal welfare which to some extent are the result of welfare inputs could be explored as related to a higher sphere of living with and caring for animals. These aspects of life transcend just performing everyday tasks and fulfilling pets’ basic needs to ensure their survival. It is about giving pets ‘a good life’. Higher things in human life exhibit plenty of variety (Kari and Hartel, 2007), and it is the same in more-than human life. The higher aspects in pet management practices could be playing and, doing leisure activities with the pet (e.g., nature exploration activities), socialization (e.g., joining in social events with their pet, or volunteering with their pet), and affiliative interactions and intimacy. The support carer and pet give each other during these activities and the leisure they experience together help them find pleasure and experience positive feelings in their lives. The human would feel companionship and pleasure, and the pet would experience states of positive affective engagement, mental security, and gain a sense of being in control of their actions (Mellor et al., 2020). As information plays a crucial role in all human practices (Bates, 1999) information and information interactions weaves its way through all these miscellaneous activities of everyday pet care and management.

5 The animal turn: implications for information behaviour

From the informational support that happens in a dog park, to the amazing flexibility of human/dog communication using an innovative soundboard, there are many intellectual, emotional and embodied facets to the interactions between humans, pets and information across multispecies families. The information experience perspective helps us explore information as construed by the individual [both human and animal], embodied by their experience and contextually situated in their practices (Hoyte, 2019). In this paper, we have identified and elaborated on many common situations experienced by multispecies families, as well as the information forms and activities taking place within them. We use information experience as a holistic framework both to draw attention to the characteristics of information in multispecies family (e.g., affective, embodied, social and other forms), and connections between contextual elements (e.g., activities take place in work, domestic, and leisure settings of their everyday practices).

Companion animal welfare is seen as a new discipline with complexities of human-animal interactions (e.g., understanding of animal behaviour, cognition, and emotional states, and factors affecting human behaviour) (Philpotts et al., 2019), and sits between the natural and social sciences (Lund et al., 2006). Based on the discussion above about the importance of information in carers’ and pets’ lives, information science could help companion animal welfare science better understand issues around the knowledge, intention, and experiences of appropriate care for the needs of pets for both lower and higher contexts. Moreover, differences in individual information experiences are likely to help explain variations in pet care and management behaviour.

In trying to improve our understanding of human life, from the point of interaction with information, we suggest that it is important to consider relations with animals in our research projects and our research outputs, in more sophisticated and empathetic ways. It is a natural extension of the relationship that currently exists in the social sciences and humanities which often find their lines of inquiry drawn in the direction of other, non-human beings (Feinberg et al., 2013; Livingston and Puar, 2011; Bolton, 2014). Information scholars could examine what information means across different facets of multispecies families’ lives; and how information is experienced by carers and their pets. We suggest that we can label this attempt for including animal in information behaviour field an ‘animal turn’. Hartel (2019) recently proposed this idea in the field as a new turn that might animate library and information science and explores information phenomena between humans and animals, as well as within animal species.

Around the two concepts of information experience and multispecies family, there is a range of different research objects and constructs that researchers could investigate. According to the literature, information experience has remained quite vague (Savolainen, 2019), there is an intriguing future for it, and much work to do (Bruce et al., 2014; Gorichanaz, 2020). Also, the more-than-human approach to everyday life remains relatively emergent and has potential for further development (Danby et al., 2019; Irvine & Cilia, 2017). We suggest the following research questions based on the dimensions of information experience (Figure 1): What informs carers and pets in understanding and living with each other? How does information appear in their shared everyday lives? How do carers and pets interact with information? How are the different forms of information adding opportunity and complexity to their experiences?

By investigating these questions, we might gain insight into the informational life world of multispecies families, such as how they feel as they engage with information, or how information builds their understanding of their pet’s needs, and the responsibilities of pet keeping. And finally, we can understand what it means to consider a more-than-human approach in human information behaviour research.

Information experience connects with other human-centred areas of information design, including information literacy and HCI (Gorichanaz, 2020) and probably ACI. Studying the information experience of multispecies families would be of benefit to healthcare providers, who seek to improve both animal and human health. By understanding pet carers’ information experience, they can better meet the needs of their patients and clients and communicate key messages with them. A more informed understanding of carers’ information experience can also assist with the development of educational campaigns that promote behaviour change programs to enhance the information and learning experiences of pet carers and ultimately enhance pet welfare. Learning is linked to an individual’s experiences. Educating and increasing carer knowledge and providing information about responsible pet care is not sufficient alone to change carer behaviour (Swiss Info, 2016; Glanville et al., 2020). Their behaviour is related to their values, intentions, experiences, and circumstances. Carers have to access, consume, understand, critique, interpret, and then accurately apply the information to their own individual circumstances. To make information accessible to carers, it must be presented in the most appropriate form, because the impact of the information will still depend on the motivations, backgrounds and contexts of the individual receiving it (Philpotts et al., 2019). Despite initiatives to explore and understand the changing information environment of multispecies families (Kogan et al., 2018; Kogan et al., 2019; Oxley and Kogan, 2018; Solhjoo et al., 2019), we need further work to understand better how to guide carers on how to gather, evaluate and apply the information needed to care for and manage their pets. In other words, to improve their information literacy. Studies of multispecies information experiences would also benefit information system developers. Information systems and technologies can be improved through an enhanced understanding of what it means to experience information (Gorichanaz, 2017). We need to obtain a clear understanding of carers’ information worlds to better connect with them and provide information for them through platforms and systems.

# 6 Conclusion

In this article we have extended the concept of information experience through the lens of the multispecies concept, companion animal welfare, and the more-than human approach. We seek to recognize and legitimize the multidimensional aspect of information forming the everyday life of people who are responsible for pets; for improving their information access, designing better information systems, or simply to understand what information means in their everyday life. Companion animal studies have expressed concern that sometimes the needs of cats and dogs living in our homes are not being met because of carers’ poor understanding of their pet’s needs (Howell et al., 2016; Stella and Croney, 2016; Glanville et al., 2020) and apparent lack of carer knowledge, skill, and intention to care and manage their pet’s day-to-day needs (Rohlf et al., 2010; Welsh et al., 2014,; Howell et al.. 2016). If we seek to prevent problems and consequently enhance pet welfare, understanding pet carers’ information experience in both the lower and higher contexts of everyday pet care and management is complex but vital. We encourage information scholars to follow these leads with academic rigour, creativity, and enthusiasm in human-animal relationships.

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