

An Anthology of Caring Practices for Stray Cats in Neighborhoods



Introduction

Stray animals and their care became a culture in years in Turkey. Many people look after stray cats, dogs, and birds in a widespread manner in urban and rural neighborhoods. The care process is conducted both individualistic and/or collective form in streets and it has been shaping according to the needs of animals and people together. A reciprocal interaction between humans and animals is the point in the questions. All individuals take advantage of this action in different ways. We all live in ecosystems and care includes many components such as cats, other non-human animals, humans, and inanimate objects surrounding it. For many years, sociologist excluded non-human entities from social interaction studies. Recently, some studies have started to question the displacement of other individuals other than human-beings. (Cerulo, 2009)

In the current study, we researched that social interactions have been gathered through practices and artifacts done for stray cats in neighborhoods. At the beginning of the research process, the main purpose was to investigate collectively driven care practices in neighborhoods to analyze the impact of sharing culture on stray animal care. What are the caregivers' needs? Which channels have been using to communicate in the community? Which kind of structures do the communities have? While the practices and information are collected, by the nature of the project sites, those questions slowly become to ask the participants of interactions in the process. Speciesism and anthropomorphism

notions and their influences have started to shape the main structure of the current research. Reconsidering these impacts is important by the reason for rendering the ecosystem into a more egalitarian approach for each living creature. Our study has a mission of asking speculative questions to make queries about the attitude towards artifacts and interventions designed by human beings for different species.



To ask those questions, social interactions among participators have been grouped into three subcategories: Cat-human interactions, human-cat-human interactions, cat-nonhuman interactions. Outcomes of subcategories have been supported by surveys, interviews, observations of existing practices. In addition to this, human-computer interaction (HCI), animal-computer interaction (ACI), user-centered design, animal behaviors, interactions of people, and animal literature have been reviewed in the ongoing pages.

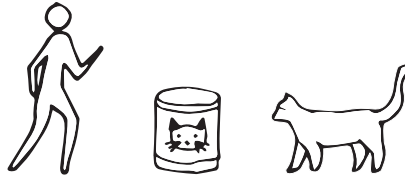
Our initial observation is the regulations that have been done for stray cats reveal that there is a tendency towards human-centrism and anthropomorphism regarding humans' actions. Less deliberate and direct ways in which human beings influence and change the life of the animal can be identified in the general anthropization of

the environment (Westerlaken & Gualeni, 2016). Westerlaken and Gualeni (2016) also argue in their research that the fundamental chasm between humans and other species might raise the question of how, if ever, we could sufficiently understand animals and make appropriate and desirable design choices for them. Posed in that way, the question is in itself anthropocentric, as it presupposes that it is the role and responsibility of the human designer to meaningfully shape the actions and experiences of both the humans and the non-humans that are involved in the interaction. By this means, they advocated that as designers we need to design in a more encompassing way.

Each existence acts and reacts with its surroundings. Interaction varies as many as interactants. This means that the language of interactions might differ from one to another. However, it was not always like this. Traditionally, theories of symbolic communication support the human-only restrictions on interaction. Mead (1934, p. 124), for example, specified that language “differentiates the action of the reflectively intelligent being from the conduct of lower forms.” (Cerulo, 2009, p. 533) Afterward, the human-only perspective started to be questioned and Latour (1997) states that change “An actant can literally be anything provided it is granted to be the source of an action” (Cerulo, 2009, p. 534) With the changing and improving perspective, some scholars have focused on the increased communicative capacities of computers, robots, and avatars and what those developments mean

for these entities’ ability to socially engage with humans. Others have focused on the power of new technologies to redefine the temporal and spatial boundaries of social interaction, allowing imagined entities to enter into a social exchange. (Cerulo, 2009, p. 539) Our current study tries to show a wide range of interaction networks among interactants and afterward positioned itself approaching existing practices by asking speculative questions shape around speciesism, anthropomorphism, human-centrism, and adult-centrism notions in the context of design.





SOCIAL INTERACTIONS THROUGH ARTIFACTS


CAT - HUMAN INTERACTION

Foods 


Analyzing food types, packages and other feeding practices

Objects 

Analyzing food and water containers

Facilities 

Analyzing cat houses and nutrition points


Trackers 

Analyzing one of the interaction options which are trackers and microchips


Games 

Game types between children and stray cats


HUMAN - CAT - HUMAN INTERACTION


Collaborations 

Analyzing school projects, cat festivals, visiting shelters, seminars


Communication 

Movies

Documentaries 

Ads 

Books 

Videos 


Prohibitions

Disagreements 


Analyzing negative impacts

CAT - NONHUMAN ANIMALS INTERACTION



Co-Existence 

Analyzing co-living practices among species

Nutrition 

Analyzing nutrition practices among species

Disagreements 

Analyzing social regulations and hierarchies among species

Social Conflicts

HUMAN-CAT INTERACTIONS

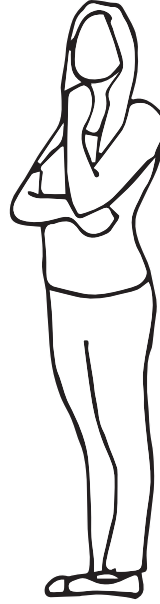
This interaction type focuses on the direction that goes from humans to cats due to being domestic animals in general. The artifacts and services provide by humans for the stray cats have been analyzed in the ongoing section. The relationship between a stray cat and a human might show up in many different ways; however, we have primarily focused on street context. On which mediums does the interaction between stray cats and humans take place?

Why do you feed stray cats?

"O canlar bize emanet, bize ihtiyaçları var. Çok seviyorum bir de. Aileden gelen de bir şey bu. Benim rahmetli babamın da baktığı bir sürü kedî vardı, çocukken üstümde bir sürü kedîyle uyanırdım. Burada bazı kedîlerim var, benimle konuşuyor, çok ilginç, gerçekten konuşuyorlar ve benden başka kîmseye de kendîlerini sevdîrmezler."

"Ben karnım tokken bana bakan ve yemek isteyen bir cana duyarsız kalamıyorum yani bir geşit empatî."

"Çünkü başkası su verir mama koyar diyemiyorum o verecek kîşi benim bu bilinç oluştu yıllardır bakmayan çok insan olduğunu görünce."



Foods

Nutrition is the most crucial need and right for any kind of living being. First of all, cat foods have been analyzed to find out why do caregivers choose those particular foods to feed stray cats. Graphics, illustrations, brand identity, and materials of food packages have been compared with counterparts for industrialized foods. Except for packaged foods, other types of foods have been looked at. What are the pet owners' choices and why do they choose them?

There are a lot of motivations and reasons to look after various animals given by people. The most common reason is that humans get some psychological benefits from feeding stray animals. A study that has been done for bird feeders reveals that nine different motives for feeding birds in their backyards. The first one is companionship—the company afforded by the wild birds; second is feel needed—the sense that the birds depended on the human provider for some of their nourishment; third is a duty—the sense of being dutybound or responsible for the birds' well-being; fourth is anthropomorphism—the attribution to the birds of feelings of gratitude for the food provided them; fifth is relaxation—the calming or physically relaxing effect of watching birds at the feeder; sixth one is entertainment—the entertainment value of birds at the feeder; seventh is an escape—the escape from problems or boredom afforded by watching birds at the feeder; eighth is sharing—the opportunity to share the experience of watching birds at the feeder with another person; and the last one is aesthetic—the aesthetic value and

enjoyment of wild birds (Horvath and Roelans, 1991, pp. 232-233). Species are different but the motivations are quite similar to care for an animal. The most frequent response to the motivations was aesthetic value and enjoyment of wild birds than any others. The second most frequent answer was consisted of anthropomorphic reasons, the feeling of gratitude (Clark, 2016). Apart from these motivations, there is maybe the most restrictive fact for many animal lovers is the economic responsibilities of care, however, Haspel and Calhoun (1990) reported that, despite probable economic constraints for most individuals, urban dwellers provided food for free-ranging cats in quantities more than sufficient to support the extant population. We can see this approach in Cevdet's words as well:

"Emekli maaşımla ben her ay bu cantar için kenara 300 TL ayırıyorum."

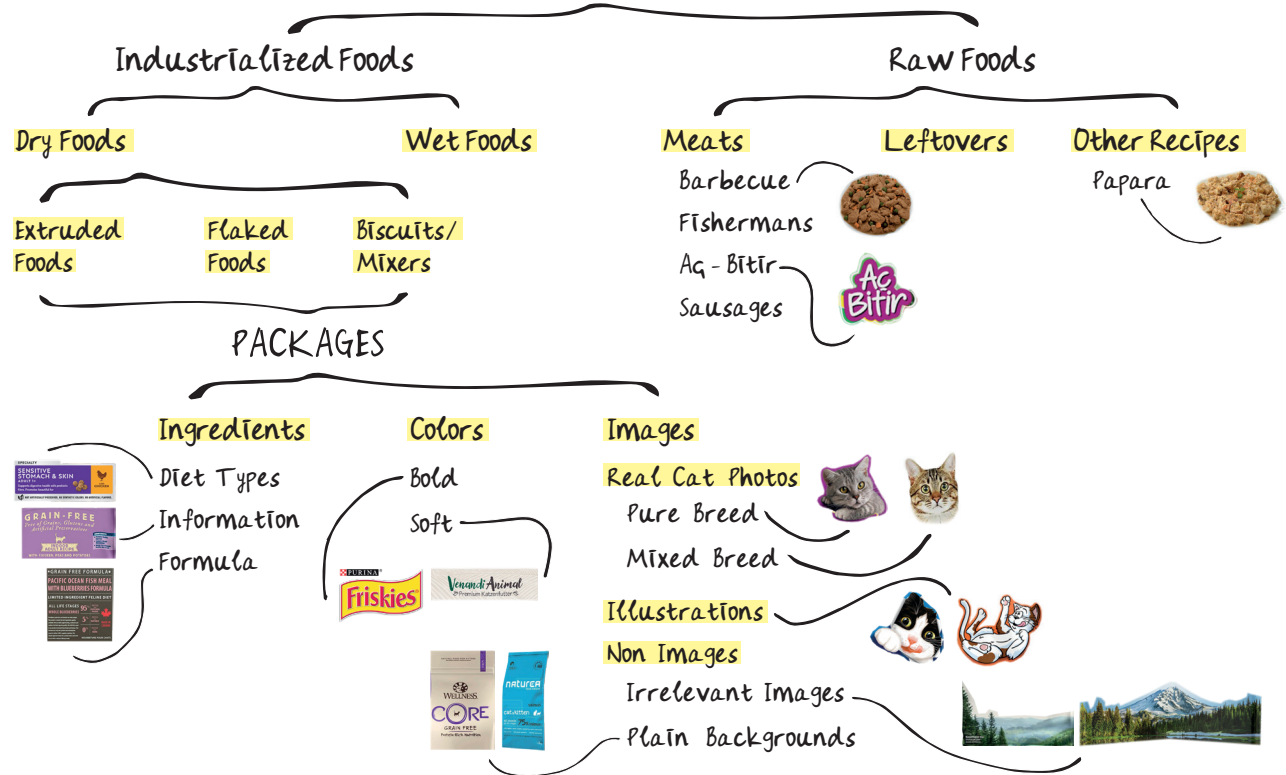
"Bireysel olarak karşılıyorum emekliyim, bazen de kızımdan yardım alıyorum, hep beraber karnımız tok oluyor."

Before comparing the graphic features of chosen food packages below, there are a few strategies to market the product and which aspects of packages get attractions by customers, to understand their decision making processes. First of all, according to research by marketing specialists, WebpageFX, consumers make a subconscious judgment about a product in less than 90 seconds of viewing it, and 62-90% of the base that assessment solely on

color, which could be attributed to the fact that color registers much faster than text or complex graphics (Petfoodindustry.com, 2017). People want to see images familiar to them quickly at all. Thus, they can feel psychologically close to the product. Based on Health Extension's updated look features vibrant colors and real pets to form an emotional connection with pet owners. Bright color schemes with warm accents and engaging fonts tie the packaging together, highlighting key product info such as grain-free, whole food ingredients, and family-owned (Williams, 2019). Another survey by Luminer Converting Group shows that nutritional information on pet food labels strongly impacts consumers' buying decisions either (Petfoodindustry.com, 2017). In other words, there are a couple of distinctive features and important key points regarding the visibility of packages to influence customer's decisions. The point is to be able to see the customer needs and answer them. Don Tomala also adds that "Portraying mixed breed pets instead of purebreds on packages is becoming more mainstream. It is a subtle way to show customers that you understand what they care about." (Petfoodindustry.com, 2017) The marketing industry follows the animal lovers' patterns for their strategy.



CAT FOODS



Graphics and photographs of cats have been using for the aim of creating a brand character. Brand loyalty is built and strengthened by a company's ability to create a strong emotional connection to a certain brand. Happy and excited facial expressions on the faces of cats have been used as an anthropomorphic attribution to establish a bond between customers and cats. Examples of anthropomorphic advertising include (but are not limited to) the use of inanimate spokes characters, mascots, and brand animals (Shaffer, 2014, p. 1). When companies use personification in an advertisement, they are encouraging consumers to attribute "personality" to the brand, thus creating anthropomorphic feelings if they are successful. Brand personality is essentially the way a brand speaks or behaves towards the consumer. Personality traits consumers attribute to the brand tend to have relatively enduring and distinct brand associations (Shaffer, 2014, p. 6).

Starting from there, several cat food packages have been analyzed to find out decisions making processes of caregivers. Unlike the stray cats who live in the streets, well-looking cat photos that are placed on food packages are not addressed to real cats all the time. According to the marketing strategists' statement, using real cat photos enables that a bond between the cat and customer; however, it does not show the fact for some who care for stray cats. It is identified that well-groomed, beautiful, healthy domestic cats have been using in front of many packages. The proportions of photographs are several, some of them are full of cats, some are smaller and different positions, poses and breeds exist.



Only one example among others, illustrations on packages of Dost Pati and Dostluk Maması draws an image close to a stray cat's real life. It sits on a newspaper with an anxious body language. It does not seem happy at all, unlike other cat photos or illustrations. The reason why showing a stray cat on the package is that the target is directly stray cats. The food specialized for stray cats' nutrition and it indicates by the sentence "for our friends on streets..." It might mean that the brands have a wide customer range, not only stray cats but also domestic cats, prefer to use idealized cat images as their identity.

Instead of using apparent cat visuals on packages, the ingredients of the product are much more in the foreground for some examples in the market. By this kind of identity, users might reach clean, simple graphics and clear, relevant messaging. Catching users' attention through ingredients information purged from visualizations is the key for these examples.



Figure 1. Cat food packages. Migros Sanal Market, 2020

Except for feeding practices with industrialized food, any other food options have been asked to caregivers. Apart from regular individual caregivers, restaurants, tradespeople, or occasional caregivers take care of stray cats in neighborhoods. This type of nutrition mostly includes other types of foods such as leftovers, stolen fishes, salami, sausages, and any other special recipes. Caregivers tell their recipes with those sentences:

"Bazen yemek (papara) yapıp bayat ekmeğ alarak veriyorum bazen kuru mama veriyorum."

"Kuru mama, yaş mama, evde haşlama et, vs."

"Peşime takılan veya ağ olduğunu anladığım kedilere, varsa yakınlardaki bakkallardan sosıs, ağ-bıtır salamalar alıyorum."

What extent do the cats benefit from human interventions to improve their experience with objects in use?

How might we position cats or animals in a more egalitarian circle with humans?

How might we design packages or bowls for cats to support their experience of eating on the ground?

How might we make sure about the food hygiene of stray cats without pushing them into harder situations?



Somun ekmeğ



Aqma Ekmeğ



Sosıs

Figure 2. Leftover alternatives for stray cats in Kuşadası, Aydın. Photographed by Sena Cucumak, 2020

Objects - Feeders and Water Bowls

Various cans, bowls, containers have been using in neighborhoods by individuals, foundations, and municipalities for stray cats. In this section, different types of containers that observed and recorded in different locations will be shown. In some cases, foods are directly set onto the ground. However, anatomically, floor-level feeding is not ergonomic for cats' forelegs, joints, and body postures. Feeders should elevate from the floor level to the cat's knee height for a healthy dietary habit (Angelscribe, 2013). Alev Eser explains the reason to put the food on the ground with this sentence:

"Su kabımız hep burada duruyor ama mama kaplarında mama bırakmıyorum çünkü karıncalar dadanıyor, bu yüzden de bir öğünlük mamayı direkt yerde vermeyi tercih ediyorum."

This also means that even the foods are specialized for cats, they do not completely belong to them, there is an ecosystem that consists of ants, birds and cats benefit from the same sources, in other words, it addresses cat-nonhuman interactions.



Figure 3. Ants eat cat food from the container. Photographed by Sena Cucumak, 2020



People prefer reusable cups to feed animals because they are still sustainable after completing the first cycle of its life. Upcycling is the most common spread habit in caring for stray cats in neighborhoods. However, noticed feeding cups, bowls, packagings during our observation are primarily produced for the human-users, the afterlife of these products is not taken into consideration by manufacturers. The most widespread structures are yogurt bowls. Yogurt bowls are easy to access and there is no additional cost for the caregivers, for this reason, they are most seen things on the streets.

"Yıkadığım yoğurt kaplarında, bazen de bir kontraplak üzerinde mama veriyorum. Su kaplarının temizliği konusunda titizlik yapıyorum ama mama konusunda kap açısından çok titiz olduğum söylenemez."

In some cases, if the feeders also do some interventions i.e. putting stone to keep stabilize the bowl. In other words, there is a contribution to the design process or customization by human-users. According to the observations around neighborhoods, yogurt and cheese cups, sheared plastic bottles and pipes, ceramic, or metal plates are used by caregivers mostly. Hülya Hanım says that,

"Metal kap da plastik kap da oluyor; fakat temizlenmesi şart her gün ve sularına dönem dönem vitamin damlatıyorum bağışıklıkları güçlenmesi için bir iki damla da elma sirkesi bakterisi oluşumunu önüyor."



Figure 4. Interventions to the experiences of stray cats. Photographed by Sena Cucumak, 2020

Figure 5. Cats eat their food from the animal shaped bowl. Gazete Yeniğün, 2020

Unlike individual care, municipality-led caring tends to be more customized than upcycling yogurt cups. More systemic and determined solutions might have provided by the foundations either. With more customized suggestions, some adverse outcomes and lacks of individual caring for the environment might eliminate. Inspired by the existing observations, the products of individual care provides more short term solutions. As a result of using temporary solutions, the negative environmental impact might increase. In other words, irresponsible and relentless use of plastic cups may cause environmental waste after all. However, in opposition to my observation in neighborhoods, according to Don Tomala, beyond the images and messages printed on a package, consumers increasingly care about the environmental effects of the container itself (Petfoodindustry.com, 2017). He mentions here the cat food packages but the concern remains the same, every kind of packages harms the environment due to their materials. So if the environmental impact of wastes is highly important for the customers, then why do caregivers leave the food and water containers on the streets? Determined suggestions regarding the problem itself might ensure a more permanent solution. Not only people but also stray cats might satisfy more with sustainable regulations.



Figure 6. Food and water container supplied by Nilüfer Municipality, Bursa. Nilüfer Belediyesi Veteriner İşleri Müdürlüğü, n.d.

Figure 7. Waste water container on street. Photographed by Sena Cücutmak, 2020

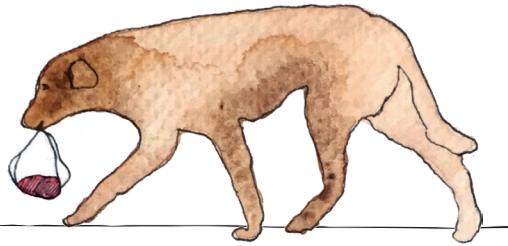
Finally, the most frequent feeders and yogurt cups are not used by only humans. Packages of some products continue their life cycle with nonhuman users. However, it is not seriously considered this issue by the manufacturers. Even though, the user group is not only remaining restricted by human kinds, the human-centric approach influences the entire process. It affects the quality of nutrition experience at all. The designs of the most frequently used packaging types might be reconsidered regarding non-human species' eating habits. It means that these designs could be revised by considering the interventions made on the street.

To what extent are decisions of caregivers influence the experiences of cats?

Are the current designs of yogurt bowls really able to answer the needs of a stray cat? How might we design a yogurt cup that answers the needs of human users and cats users equally?

How can be improved the nutrition experience of stray cats following the ergonomic parameters? More importantly, should be improved?

"Bir defasında yemeğini bir yerden başka bir yere gotüren bir köpek görmüştüm."



Facilities - Cat Houses and Feeding Points

Cat houses and facilities basically identified locations to feed animals in neighborhoods and mostly those places have been decided by humans either.

"Evimin önünde besliyordum, uyarı gelince yine evimin önünde bir köprü ayağının altında besleme yapıyorum, canları birebir tanımıyorum ama akşam koyduğum mamaların ertesi gün kontrolünü yapıyorum."

Apart from in front of houses and apartments, street corners, next to trees, parks, and garbage containers are the frequent locations to set the foods based on our observations in streets.

"Bu noktalar belediyeye ait yerler ve insanların gelip gelmediği yer olmasına dikkat ediyorum ne hayvanlar ürksün insandan ne de insanlar rahatsız olmasın. 5199 sayılı kanuna göre kurum şahıs site dediğimiz yerler de sahipsiz hayvanların yaşam alanları ancak bunu idrak etmiyor site yönetimleri. Bir nevi kanun hiçe sayılıyor oysa insanların uygunsuz yaptırdığı birçok durum yapıt değışim var binalarda, hepsi şikayet konusu."

If there is a collective caring in a neighborhood, humans locate the feeding point together, also in some cases, caregivers may take some support by municipalities as well. There are some feeding points and shelters at the same locations, some of



Figure 8. A cat house example in Safranbolu, Karabük. Photographed by Orkut Duran, 2020



Figure 9. Upcycled cat house. Milliyet Gazetesi, 2017

them are individually made, some are collective constructions. Materials and designs of cat houses are various such as wooden, tire, styrofoam, wire, polypropylene, cardboard and cotton, light plastic. Therefore, upcycling culture is explicitly visible in neighborhoods. Some houses are made of waste materials and objects such as wheelhouse, washbowl house, barrelhouse, cabinet house, the ballot box. Broken computer monitors would turn into a cat house in some cases. As a cat house example of the traditional architecture of the specific culture and its reflection on shelters reflects on:

"Nilüfer Belediyesi tarafından ilçedeki sokakta yaşayan kedilere özgü kedi evleri projesi hızla devam ediyor. Osmanlı mimarisine uygun tasarlanan kedi evleri, Ataevler, Altınşehir ve Görükle mahallerinde hizmet vermeye başladı." (Kedi Evi Projemiz Hızla Devam Ediyor, n.d.).

Miniature Safranbolu Houses and Ottoman architecture has no noticed positive influence regarding the ergonomics of the structure to the cats. To reflect the territory's characteristics on the properties of animals, humans transfer their own artifacts to non-human fields. It means that anthropomorphic thinking is commonly seen on animal's everyday gadgets. Humans readily attribute intentionality and mental states to living and nonliving entities, a phenomenon known as anthropomorphism (Urquiza-Haas and Kotrschal, 2015, p. 167). Consequently, most of the cat houses build of gable roof architecture style pretending like the user of the facility is a human.



Figure 10. A cat house example in Altınşehir, Bursa. Nilüfer Belediyesi Veteriner İşleri Müdürlüğü, n.d.



Figure 11. Upcycled cat house. Aytekin, 2018

On the other hand, there is a tendency toward banding cat houses together much like the urban living style of humans. Cats are social animals that, in feral conditions, live in groups consisting mainly of queens and their litters. The density of the group depends partly on food resources. In free-range conditions, multiple generations of related females can live together, which also allows for communal rearing of kittens (Landsberg and Denenberg, 2014).

How might shelters in cities both can answer the needs of animals as well as integrate well to the city?

How might we integrate non-human centric point of view as designers to our design process? Which tools and methods are available and might be developed to make the experience of stray cats more accessible to us?



Figure 12. Upcycled cat house. "Legenden praktik kedri evleri", 2013



Figure 13. Upcycled cat house. Altınova Gazete, 2019



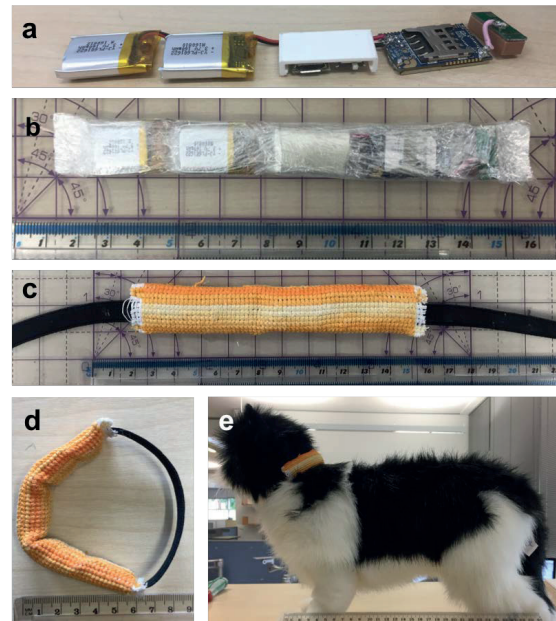
Figure 14. Upcycled cat house. Arslan, 2016

Trackers

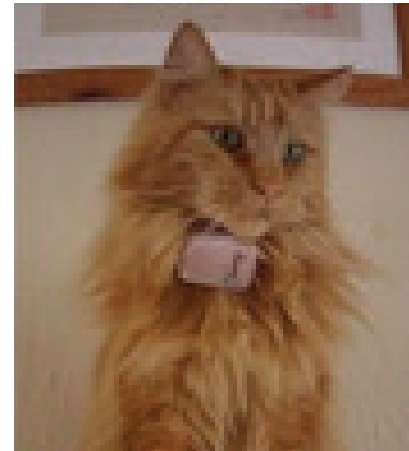
Monitoring cats is one of the mediums of human-cat interaction type. With the development of telecommunication and satellite technology, biotelemetry becomes common spread for animals' use either. Animal owners who were interested in their companion's life started to use wearable technologies. However, the issue is not only about interest, but also for their companion's safety and health (Paci et al., 2019). Trackers have not only one user, it is a participatory service that has been used by owners and animals equally. While people are users of the service, animals are wearers. The needs of both sides are quite different from each other and the design of those particular extensions should be thought regarding its users. Väättäjä et al. (2017) describe these concerns with these questions: "When creating new technological solutions to facilitate and expand human-animal interaction and bonding, we need to explore and understand what are the elements and characteristics of human-animal bonding: what cognitive, affective, and social aspects are involved. How do humans and animals experience the solutions?" Gemperle et al. (1998) argued that "a product that is wearable should have wearability" and that designing for wearability means to shape the wearable in accordance with the body form (Paci et al., 2020). There is a couple of research conducted with the cats and their experiences for trackers for improvement.



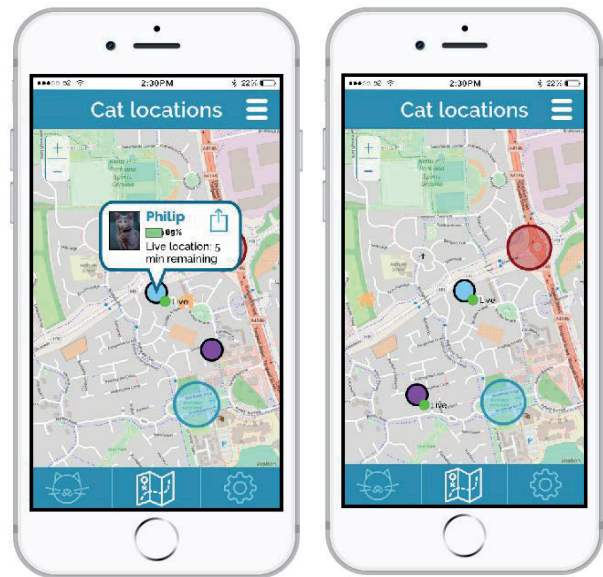
Paci et al. (2019) studied on a report on the evaluation of a wearer-centered framework (the WCF) that interprets and adapts fundamental values and principles of user-centered design to inform the design of animal biotelemetry by systematically guiding designers through a requirements analysis that sees animal wearers as the primary stakeholders. The resulting requirements informed a feline-centered prototype whose wearability was evaluated with cat wearers. Compared to the wearability of previously tested off-the-shelf devices, their findings show an improvement and suggest that their framework-based approach can help design teams with a range of skills to systematically design for wearability. Overall, the WCF enabled designers to establish requirements heuristically that were validated through the design and wearability test of the prototype.



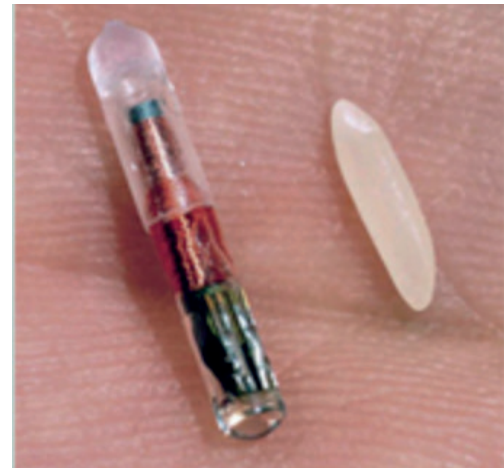
In another research, Paci et al. (2020) investigated the wearer experience with popular GPS trackers that identified animal-friendly by market. Improper fitting and physical design inconsistent with the wearers' characteristics interfere with the sensory and physical experience of animals, with adverse consequences for their welfare and unreliable results for human consumers. Designing for animal wearability is central for improving the quality of both wearers' and users' experience. Thus, it is essential to understand how animals experience the wearables they are fitted with. To this end, this paper presents an observational study with 13 cats, during which their behavioral responses while wearing devices were recorded under three experimental conditions, including wearing one or the other of two off-the-shelf tags, or wearing nothing. The aim was to investigate the experience of cats, to find any flaws in the wearables' design that could serve to systematically establish species-specific requirements for wearability. Committing to wearability as a design goal promises to improve animal biotelemetry design and practice.



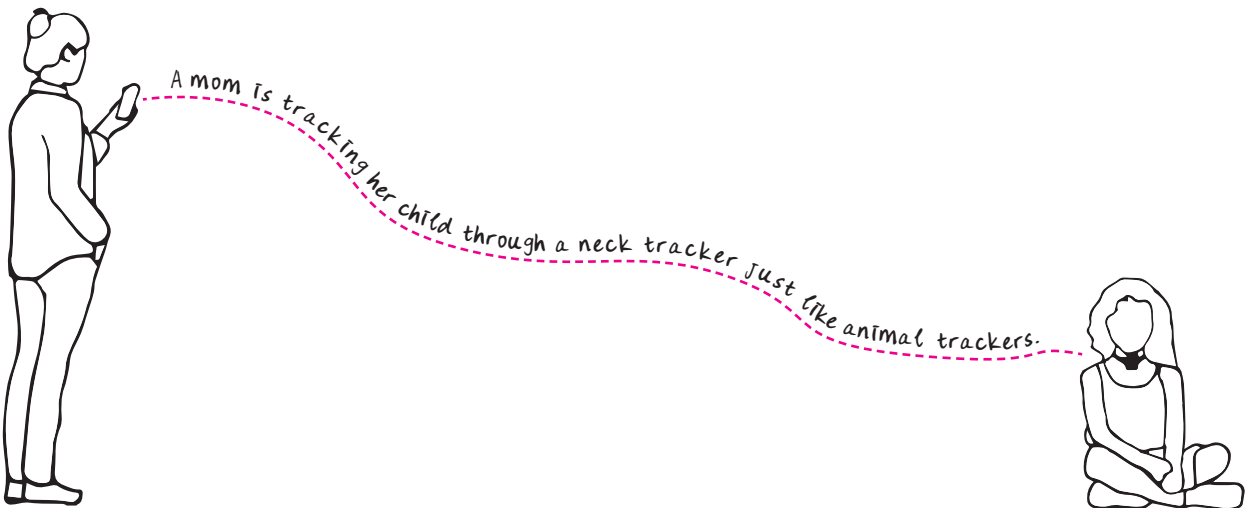
Swagerman et al. (2018) presented the requirements for the visualization of GPS data of domestic cats that were determined in collaboration with cat owners during the study. Interviews and multiple prototypes were used as tools to identify and refine these requirements and were mostly based on cat owners' concerns and curiosity for their cats' location. The most important requirements for a cat owner-centered GPS visualization were being able to request the live location and being alerted if the cat might be in trouble. Due to current GPS devices and the supporting interfaces and visualizations are usually created with a focus on dog owners. To acquire more insight into the needs of cat owners in relation to GPS devices for domestic cats, an iterative prototype-based study was conducted.



Except for private use like pet owners, some microchips have been using by veterinary authorities to record the stray animal's care. Microchips commit to solving the tracking problems of stray and domestic cats and dogs. For the stray animal case, chips have been integrating for regular care, its records and most importantly keeping under control. Tracking sterilizing information towards chips is another important reason. After 8 months old, the microchip is placed under the skin with the help of a special injector. ("Pet Mikroçip Nedir?"; n.d.)



How might we bring the non-human centric design attitude to the process of designing trackers?

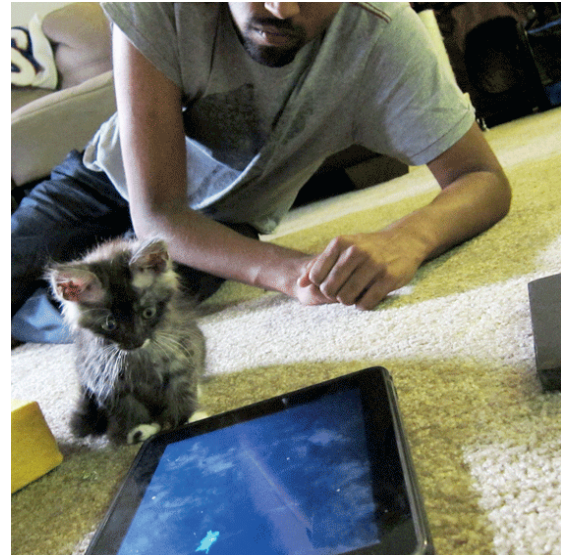


Games

All species play. As humankind one of the common points with other species is to play in all ages. Playing never ends and there are also intersectional play types. Humans and animals (for example dogs) can play together through the mediation of a toy to understand that certain object functions as a toy in a certain situation, all of the involved parties need to follow specific ways to act that is prescribed by the affordances of the object and by the specific (playful) context (Westerlaken & Gualeni, 2016, n.d.).

Timid stray cats tend to escape easily due to the rapid behaviors of children, based on the existing observations, sometimes those games evolve into playing tag. Children who know how to approach stray cats just play in the streets. Except for analog games with children in the streets, adults take place within animal-computer interaction called Interspecies Gaming Experience. The Cat Cat Revolution (CCR) is a digital game of cat and mouse that allows cats to participate in play through a species-appropriate interface. The game applies Human-Computer Interaction (HCI) principles to pets and casts pets as participants in the gaming experience. During the pilot study, pet owners characterized CCR as a mutually positive experience, describing the game as a “fun” way to play. CCR explores the effects of including pets in the digital gaming experience (Noz & An, 2011, p. 2661).

How might we design games that give _____
the similar experience and joy to each _____
individual for interspecies play type? _____



Seni yakalayacađım, gel buraya!

Kaçma!



HUMAN - CAT - HUMAN INTERACTIONS

This interaction type focuses on mainly human-human interaction, however, interactions between humans cannot be thought of without cats while all practices and artifacts have been doing for them at all. Firstly, human-cat-human interaction like all other relation types has a dichotomy however, there are no strict borders to call them positive or negative. There are several examples practiced by adults and children together to foster the relationship between humans and stray cats such as collaborations, and several visual communication media. Various channels have several influences. In addition to this, humankind does not consist of only adult individuals. Some children interactants communicate stray cats closely apart from adults either. Regarding participation proportions of adults and children, there is an adult dominance on this issue. Interactions between children and stray cats largely manage by adults, based on the current study, some practices might be considered as adult-centric. This dominance is mainly based on mentorship position during feeding stray cats in the streets, how to approach them, and teaching to understand their body language. Based on our observations, the interaction between humans highly influences the nutrition quality regarding successful organization and communication. It means that cats can reach the food any time, there is no lack of food thanks to the working schedule.

On the other hand, due to the local authorities, feeding cannot be done everywhere in some cases. For example, some people do not want to see nutrition happening around their front doors.

"Hayvan bakımının yasak olduğu bir sitede yaşıyoruz. Bu yüzden hayvanlara site sınırları dışında bakmak zorundayız. En öncelikli isteğimiz sayılı hayvanları koruma kanununun meclisten geçmesi. Bu sayede site'nin giriş güvenliğe bir yazı asıp bize engel olamayacaklarını anlatabiliriz. Destek oluyorsa bari destek olmasınlar."

Therefore, caregiver/caregivers prefer to feed stray cats far from public spaces. In collective care cases, responsibility and materiality have been sharing by becoming a group at all. Some of the responsibilities might be expressed in these sentences:

"Mama ve sularını tazelıyorum aksatmadan yapmaya çalışıyorum."

"Acil şahıs olaylarını haydi programından ihbar giriyorum. Belediye veya toplulukla ilgili konuları gazete hukuk işlerinden sorumlu kişiye iletiyorum. Nesrin Çıtrık'a WhatsApp üzerinden gönderiyorum. Şehir durumuna göre oradaki hayvanseverlerle iletişim whatsapp gazete grubundan yapıyorum çünkü Türkiye genelinde hayvansever üyeler var."

Responsibilities and duties have been shaping according to the group dynamics mostly, however, the most essential duty, for sure, following up on the nutrition of cats. The main members of these groups are neighbors, vets, and cats. Helping each

other is creating the main infrastructure of these interactions.

"Korona vürüsü çıkınca (ben yaşımdayım) bir tanıdığımın yardım istediğim, pandemi boyunca bana yardımcı oldu. O da bir hayvansever, ben daha sonra yine mama vermeye devam ettim. Sağ olsun zorlandığım zamanlar yardımcı oluyor."

Anneanne, kedinin kuyruğu pislenmiş temizleyebilir miyim?



Hayır, yanlış bir şey yaparsan onu sınırlendirebilirsin.

Collaborations

Projects with different purposes put people together to produce value for cats. Several formations can be counted as collaborations such as school projects, cat festivals, visiting shelters, seminars. Schools, teachers, municipalities, sponsors, and children take place in these collaborations. Apart from analog examples, social media platforms have an enormous power to make a difference on that issue, especially. People can organize and find answers for particular needs immediately through their profiles. Those callings consist of mostly to help the stray cats who are in difficult situations such as finding finance for treatment cases, adoption, missing reports, or news. This means that there is a solidarity to help stray cats with different forms.



Figure 15. Collaborative cat houses project. Son Dakika, 2019



Figure 16. A feeder example produced by students and Nilüfer Municipality. Bursa Arena, 2017



Figure 17. A cat festival poster. (Aytekin, 2016)

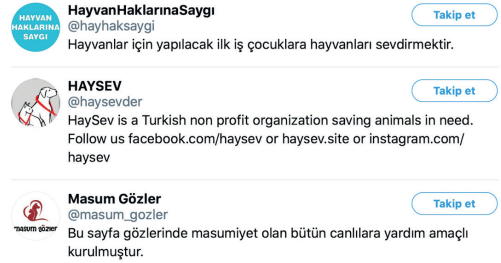


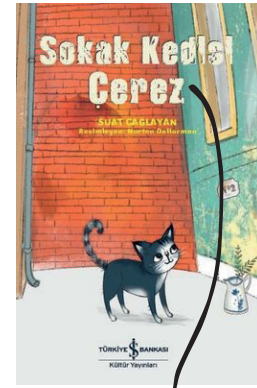
Figure 18. A screenshot shows shelter profiles in Twitter. Captured by Sena Cücumak, 2020

Books

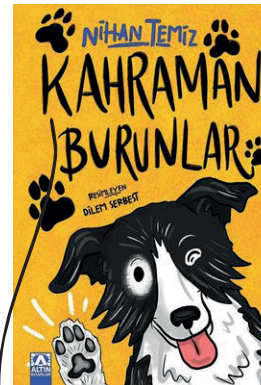
Books about cat kingdom, general information about them, how to approach guides, comparative books, stories are the most common genres in the children's library section. The guidebooks, storybooks are disruptively about the animals which humans most likely interact with such as dogs, animals, birds, fishes. Storybooks mostly consist of adult advisors to tell children how to approach a cat. Therefore, the content of children's books corresponds with the same attitude in neighborhoods, adults play a role as the protagonists. For the younger children, a parent should read the book to find out written text. Images and illustrations are the main focus, literary text comes after images. The language of some books tends to be more anthropomorphic attitudes. Several studies have shown that children enjoy listening to stories but that learning is not favored by the presence of anthropomorphic characters. In fact, children are more likely to transfer to the real world knowledge derived from realistic stories than that from anthropomorphic stories (Larsen et al., 2018). Thus, the fact that anthropomorphism is a fundamental tool for children's learning appears to be an adult bias (Airenti, 2018, p. 11). From this perspective, adult's and child's anthropomorphism is strictly intertwined and it is not possible to think of one without another one.



Using mister and miss for animals



Giving names



Using adjectives for animals which pertain to humans



Figure 21. Book cover. (Temiz, 2019)

Figure 22. Book cover. (Garnier, 2018)

Figure 19. A book page from Kedi Dünyası. Photographed by Sena Cucumak, 2020

Figure 20. Book cover. (Çağlayan, 2020)

Advertisements

To get a particular message across to people, ads have been using for different mediums. The language has been used in those messages that can be a reference to what drives people to take care of stray animals, in other words, anthropomorphic language has been using to communicate with people. Bibs have dressed cats and dogs likewise toddlers and they say thank you much like humans. Attribution of human habits on animals and the feeling of being needed constitute the main structure of ads.



Figure 23. A poster to invite people for putting food and water for stray animals. (Aykun, 2016)



Figure 24. A poster to invite people for putting food and water for stray animals. (Hürriyet Gazetesi, 2015)



Figure 25. A poster shows the animals in shelters thank. (Kika's World, 2018)

Movie - TV Show - Documentary

Movies and documentaries have several contents about stray and domestic cats. To find out their daily life, rituals, behavioral patterns, lots of content has been producing for different audiences. Social relations between cats and their surroundings construct the main theme of these media. Human beings participate in the creation process in different positions such as illustrator of *Bücür Kedi*, director of *Kedi*, or scientist in order to research cats' secret life. The protagonists consist of usual cats but, the hero's point of view does not take into consideration always. The story has been telling omnisciently, therefore, the omnipotent here is humankind. In other words, humans put themselves in the center of storytelling either. Human-centrism is in the foreground. On the other hand, anthropomorphism might be seen in the *Bücür Kedi* TV show for young children. The kitten goes to funfair which is invented by humans for the human species. There is also discussed the attribution of human features through other species to tell adult worlds' dynamics to children.

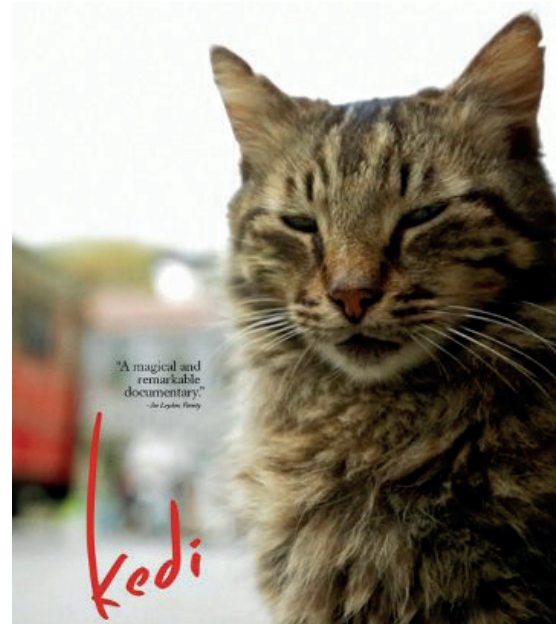


Figure 26. Documentary poster. (Torun, 2016)



Figure 27. Animated cartoon screenshot named *Bücür Kedi*. (*Bücür Kedi*, 2018)



Figure 28. Cover of documentary episode. (*Secret Life of the Cat*, 2013)

Negatively prone interaction types between people but also highly effects stray cats' habits and attitudes towards humans. There are so many people who do not love stray cats as many as cat lovers. People live in communities and there are some environmental regulations to keep the rules working. For this reason, not everyone wants to share and live together with stray cats in the same ecosystem. Therefore, some disagreements could happen sometimes. Conflicts, prohibitions, disagreements, destroying facilities done for cats might be counted in this manner. To show a negative reaction has several reasons generating by the reactor themselves. One of them is, for example, some parents are worried about the interaction between their child and stray cats, and as a result, they do not want to be shown up in the same environment. Each initiative for stray cats might create a problem. Inspired from existing interviews and observations, caregivers prefer to feed and care for stray cats the places where no one lives such as under bridges, construction areas, nearby trash. Although forming an ecosystem altogether with inanimate existence, humans and non-human animals, human beings put their privilege on top and in the center then try to place other components into the circle. Pushing non-human creatures out of their ecosystems where they belong is another variation of the human-centric approach.

How might adults open a space in which children and cats can interact in their own way and without indicating any dominance? Also, how can designers can learn from the process of children interacting with animals?

What are the reasons of negative thoughts about stray cats? How can design of infrastructural systems may challenge and positively transform the existing negative attitudes?

How might designers and/or thinkers provide the spatial justice for all species equally?

How might we evaluate the efficiency of the visual communication tools in practice? At what extent effective these media to make people take action for the particular goal?

Burasi özel bir mülk,
burada hayvan
besleyemezsiniz, çocuklar
da var olmaz.



Kedi burada olduđu
için mamayı buraya
getirmeyi tercih ettim,
bir daha olmaz.



CAT - NONHUMAN ANIMALS INTERACTIONS

As we live in an ecosystem, that circle comprises of a lot of elements. Some of them contact each other more frequently like animal-humans or animal-animals. Stray cats are, too, not only interact with human beings for sure, other non-human animals have been touching each others' life reciprocally. Those touchpoints are several. However, unlike other interaction types between stray cats and humans, there is no tendency towards putting their species into the center like humankind. When the intersection areas of different species examine, there is no domination attitude over species or influencing each other's habitats in their ways. There are two pages from Hepi Topu Bir Tekir book that shows its readers the existence of different perspectives in the world (Wenzel, 2016). Each individual tries to find themselves an existence opportunity out there. Therefore, there is no distinctive difference between relationship types as positive or negative; beneficial or harmful.

Is there any inspiration to get from non-human animals social interactions to improve the social interaction between humans and stray cats for designers? How might designers interpret non-human interaction patterns to adapt to other types of social interactions?

How might we challenge and possibly transform the structure of question which is prone to be anthropocentric for designing appropriate and desirable artifacts for stray cats?



Figure 29. Book pages from Hepi Topu Bir Tekir book. (Wenzel, 2016)

Nutrition

Nutrition is one of the most fundamental and interactive moments among species. Different species can be fed by the same sources in the streets. Birds, dogs, cats, ants can be gathered for the same food source at some points. Even though the sources are the same, nutrition timing is not the same as others. When the concern is food, even individuals from the same species have to wait for their turn or they should find a different food source. Nutrition is a private and individual process for different species. An industrialized cat food might become an ant food suddenly as shown on the right-hand side. On the other hand, during a stray cat is fed, a stray dog can jump in the middle of the nutrition and ruin the ritual as shown below.



Figure 30. Ants and cat foods in a food bowl. Photographed by Sena Cucumak, 2020



kedi



köpek

Figure 31. A cat and a dog who fed from same food sources. Photographed by Sena Cucumak, 2020

Co-Existence

The housing facilities tend to be arrayed collective for stray cats by humans. For those who live in the community, other cats are the most frequent interactants apart from other living beings. Likewise food, shelters are resources themselves and they gather stray cats around. Natoli (1985) stated that active spacing patterns of stray cats were related to resources offered by the environment where the animals lived. In other words, in cat populations, the spacing system and the social organization are determined mainly by the environment. There can be lots of advantages to cohabiting. For example, Van Aarde (1978) suggested a thermoregulatory benefit for cats sleeping together on a sub-antarctic island. Stray cats have been doing a lot of activities around their spaces such as resting, sleeping, eating, mating, playing, raising offspring, and investigating (Natoli, 1985). However, the social parameters among the community members might affect the decision-making process for where to do those activities sometimes. It highly depends on the hierarchy in the community.

Different species' individuals are prone to live separately mostly. Except for humankind and their companion animals, it is hard to see in the same habitat two different species who live mutually beneficial. Based on the current research focuses on interspecies social interactions. "



Figure 32. Cat house example. (Arslan, 2016)



Figure 33. Cat house example. (Nilüfer Belediyesi, 2016)



Figure 34. Cat house example. (Mynet, 2018)

CAT - HUMAN INTERACTION

Foods

Human beings intervene towards various artifacts that stray cats use in their daily lives i. e putting a stone into the water container to stabilize it; however, *to what extent do the cats benefit from human interventions to improve their experience with objects in use?*

Most of the interactions keep human users in their centers including the feeding experience. Therefore, *how might we position cats or animals in a more egalitarian circle with humans?*

Due to the ergonomics, design, or materials of containers or caregiver's decision, stray cats sometimes prefer to perform eating on the ground directly, how related package's physical features and feeding experience of stray cats? *How might we design packages or bowls for cats to support their experience of eating on the ground?*

Human beings are rigorous for the hygiene of their foods and they might think of other species' eating habits should include similar concerns. Interventions done for stray cats may occur with this concern in their

ecosystems. Therefore, *how might we make sure about the food hygiene of stray cats without pushing them into harder situations?*

Objects

Humans largely manage the interactions between cats and artifacts. Designs and any other features of selected objects for stray cats influence their experiences through them. *To what extent are decisions of caregivers influence the experiences of cats?*

In order to answer the needs of human users substantially, yogurt cups are very commonspread objects in neighborhoods, *are the current designs of yogurt bowls really able to answer the needs of a stray cat? How might we design a yogurt cup that answers the needs of human users and cats users equally?*

Ergonomic availability effects the experience of used object for its user, therefore *how can be improved the nutrition experience of stray cats following the ergonomic parameters? More importantly, should be improved?*

Facilities

Humankind tends to show anthropomorphic attitudes over their social and physical environment to establish healthier relationships, as a

result of this pattern, some cat houses becomes properties that carry cultures heritage features, i.e. Safranbolu Cat Houses. *How might shelters in cities both can answer the needs of animals as well as integrate well to the city?*


Does human-centrism really answer the needs of cats in terms of specifically designed artifacts for them? *How might we integrate non-human centric point of view as designers to our design process? Which tools and methods are available and might be developed to make the experience of stray cats more accessible to us?*

Trackers

Human beings use trackers to make sure the security of their pets mostly and cats can face with several struggles in their social life due to the designs of these devices. Even if the intention is about protective instincts, *how might we bring the non-human centric design attitude to the process of designing trackers?*

Games

Every species play. Playing is one of the most common natural desires among species. Play types and games changes species to species for sure. By this reason, *how might we design games that give the similar experience and joy to each individual for interspecies play type?*



AL INTERACTIONS
QUESTIONS

HUMAN-CAT-HUMAN

INTERACTION

Adults have an huge power to influence the relationships of cats and children. Children usually ask them what can they do. Therefore, adults design the interaction between cats and children. However, how might adults open a space in which children and cats can interact in their own way and without indicating dominance? Also, how can designers can learn from the process of children interacting with animals?

Even though there are several different forms of beneficial interaction types between stray cats and human, there are some contrast approaches sometimes. What are the reasons of negative thoughts about stray cats? How can design of infrastructural systems may challenge and positively transform the existing negative attitudes?

How might designers and/or thinkers provide the spatial justice for all species equally?

There are various mediums and initiatives have been working for improving the circumstances for the stray cats through books, movies, documentaries. However, how might we evaluate the efficiency of the visual

communication tools in practice? At what extent effective these media to make people take action for the particular goal?

CAT-NONHUMAN ANIMALS

INTERACTION

Non-human species are not in the same centralist attitude like human counterparts, based on our observation social regulations are mainly about co-existence requirements. Is there any inspiration to get from non-human animals social interactions to improve the social interaction between humans and stray cats for designers? How might designers interpret non-human interaction patterns to adapt to other types of social interactions?

Human species transforms its environment through artifacts and they include this transformation other species either. How might we challenge and possibly transform the structure of question which is prone to be anthropocentric for designing appropriate and desirable artifacts for stray cats?

Conclusion

This study aims to make the readers questioned about the topics that have been researched and observed. By asking speculative questions right end of the sections has been tried to displace perspectives widely acclaimed. This booklet does not provide any end product but also keep triggering new questions afterward. Afterall, the tendency towards speciesism, human-centrism, adult-centrism, and anthropomorphism are a couple of notions have been discussed through the booklet. Sociality motivation, the need to feel socially connected with others, has been proposed as an important determinant of individual variation in anthropomorphic thinking (Paul et al., 2014, p. 499). Critising centralist and anthropomorphic approaches throughout questions generated the main structure of booklet.

Is it possible to talk about an ecosystem in which all components who are cats, non-human animals, adults, children, and many others are involved in the process in equal shares, moreover, how might be designed?

To start the design process from the very beginning, the topics that analyzed throughout the pages positioned themselves as a starting point. Shareholders of care process including many participants (animate and inanimate) have been tried to be a guide. Regulating the shares, giving up the centralist approach, and providing spatial justice might create a better context for each component.

Acknowledgements

We thank the caregivers who participated in the research process, and I am grateful to Özge Subaşı, Zeynep Şölen Yıldız, Pınar Apaydın, Serpil Karaoğlu for their helpful comments on various drafts and presentations of this study.

References

- Merriam-Webster. (n.d.). Anthropomorphism. In Merriam-Webster.com dictionary. Retrieved September 3, 2020, from <https://www.merriam-webster.com/dictionary/anthropomorphism>
- Horvath, T., & Roelans, A. (1991). Backyard Feeders: Not Entirely for the Birds. *Anthrozoös*, 4(4), 232-236. <https://doi.org/10.2752/089279391787057080>
- Clark, N. (2016). Food Packaging Color Influences Consumer Behavior | HART Design & Mfg. HART Design & Manufacturing, Inc. Retrieved 6 September 2020, from <https://hartdesign.com/industry-news/food-packaging-color-influences-consumer-behavior/>.
- Pet food packaging design tips from an award-winning team. *Petfoodindustry.com*. (2017). Retrieved 11 October 2020, from <https://www.petfoodindustry.com/articles/6352-pet-food-packaging-design-tips-from-an-award-winning-team>.
- Williams, D. (2019). Innovative pet food packaging: Five future trends to look out for. *Packaging Gateway*. Retrieved 7 September 2020, from <https://www.packaging-gateway.com/features/innovative-pet-food-packaging/>.
- Shaffer, J. (2014). Innovating Advertising: Conventional vs. Innovative Anthropomorphic Advertising Approaches in the Twenty-First Century. *Advertising & Society Review*, 15(1). <https://doi.org/10.1353/asr.2014.0005>
- Angelscribe, M. (2013). The benefits of raised feeders for cats | *Animal Wellness Magazine*. *Animal Wellness Magazine*. Retrieved 11 October 2020, from <https://animalwellnessmagazine.com/raised-feeders/>.
- Urquiza-Haas, E., & Kotrschal, K. (2015). The mind behind anthropomorphic thinking: attribution of mental states to other species. *Animal Behaviour*, 109, 167-176. <https://doi.org/10.1016/j.anbehav.2015.08.011>
- Landsberg, G., & Denenberg, S. (2014). Social Behavior of Cats. *Veterinary Manual*. Retrieved 26 August 2020, from <https://www.merckvetmanual.com/behavior/normal-social-behavior-and-behavioral-problems-of-domestic-animals/social-behavior-of-cats#:~:text=Cats%20are%20social%20animals%20that,of%20queens%20and%20their%20litters.&text=Most%20cats%20are%20solitary%20hunters,with%20people%20is%20so%20successful>.
- Airenti, G. (2018). The Development of Anthropomorphism in Interaction: Intersubjectivity, Imagination, and Theory of Mind. *Frontiers In Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02136>
- Paci, P., Mancini, C., & Price, B. (2020). Understanding the Interaction Between Animals and Wearables. *Proceedings Of The 2020 ACM Designing Interactive Systems Conference*. <https://doi.org/10.1145/3357236.3395546>
- French, F., Mancini, C., & Sharp, H. (2017). Exploring Research through Design in Animal Computer Interaction. *Proceedings Of The Fourth International Conference On Animal-Computer Interaction - ACI2017*. <https://doi.org/10.1145/3152130.3152147>
- Natoli, E. (1985). Spacing pattern in a colony of urban stray cats (*Felis catus* L.) in the historic centre of Rome. *Applied Animal Behaviour Science*, 14(3), 289-304. [https://doi.org/10.1016/0168-1591\(85\)90009-7](https://doi.org/10.1016/0168-1591(85)90009-7)
- Cerulo, K. (2009). Nonhumans in Social Interaction. *Annual Review Of Sociology*, 35(1), 531-552. <https://doi.org/10.1146/annurev-soc-070308-120008>
- Noz, F., & An, J. (2011). Cat cat revolution. *Proceedings Of The 2011 Annual Conference On Human Factors In Computing Systems - CHI '11*. <https://doi.org/10.1145/1978942.1979331>
- Paci, P., Mancini, C., & Price, B. (2019). Wearer-centered design for animal biotelemetry. *Proceedings Of The 23rd International Symposium On Wearable Computers - ISWC '19*. <https://doi.org/10.1145/3341163.3347750>
- Pet Mikroçip Nedir?. Retrieved 27 September 2020, from <https://veteriner.co/pet-mikrocip-nedir.html>.
- Swagerman, S., Mancini, C., & Nack, F. (2018). Visualizing cat GPS data. *Proceedings Of The Fifth International Conference On Animal-Computer Interaction - ACI '18*. <https://doi.org/10.1145/3295598.3295608>
- Väätäjä, H., Majaranta, P., Törnqvist, H., Ainasoja, M., Surakka, V., Juhlin, O., & Mancini, C. (2017). Technology for Bonding in Human-Animal Interaction. *Proceedings Of The Fourth International Conference On Animal-Computer Interaction - ACI2017*. <https://doi.org/10.1145/3152130.3152147>

[org/10.1145/3152130.3152153](https://doi.org/10.1145/3152130.3152153)

Paul, E., Moore, A., McAinsh, P., Symonds, E., McCune, S., & Bradshaw, J. (2014). Sociality Motivation and Anthropomorphic Thinking about Pets. *Anthrozoös*, 27(4), 499-512. <https://doi.org/10.2752/175303714x14023922798192>

Torun, C. (2016). Kedi [Documentary Film]. Turkey; Oscilloscope Laboratories.

Wenzel, B., & Sevde, Z. (2016). Hepi topu bir tekir. Little, Brown and Company.

BBC. (2013). Horizon's Secret Life of the Cat [Documentary].

Cats - Cat Food. Pfma.org.uk. Retrieved 12 October 2020, from <https://www.pfma.org.uk/types-of-cat-food>.

Westerlaken, M., & Gualeni, S. (2016). Becoming with: towards the inclusion of animals as participants in design processes. Proceedings Of The Third International Conference On Animal-Computer Interaction - ACI '16. <https://doi.org/10.1145/2995257.2995392>

Gazete Yenigün. (2020). Minik dostlarımızı unutmamalım [Image]. Retrieved 5 November 2020, from <https://gazeteyenigun.com.tr/minik-dostlarimizi-unutmamalim/27502>.

Migros Sanal Market. (2020). Dost Pati Tavuklu Kedi Yardım Maması [Image]. Retrieved 5 November 2020, from <https://www.migros.com.tr/dost-pati-tavuklu-kedi-yardim-mamasi-p-271ff07>.

Migros Sanal Market. (2020). Dostluk Maması 100 G (Kedi Maması) [Image]. Retrieved 5 November 2020, from <https://www.migros.com.tr/dostluk-mamasi-100-g-kedi-mamasi-p-271fe96>.

Nilüfer Belediyesi Veteriner İşleri Müdürlüğü (pp. 13-15). Bursa: Nilüfer Belediyesi. Retrieved from <http://www.skb.gov.tr/wp-content/uploads/2018/05/Nilufer-Belediyesi.pdf>

Milliyet Gazetesi. (2017). Seçim Sandıkları, Kedi Evi Oldu [Image]. Retrieved 8 August 2020, from <https://www.milliyet.com.tr/yerel-haberler/izmir/secim-sandiklari-kedi-evi-oldu-11750688>.

Aytekin, D. (2018). Eski varillerden sokak hayvanları için yuvalar yapan Kutay Durmuş'la tanışın [Image]. Retrieved 8 August 2020, from <https://www.yesilist.com/eski-varillerden-sokak-hayvanlari-icin-yuvalar-yapan-kutay-durmusla-tanisin/>.

Leğenden pratik kedi evleri. Twitter.com.

(2013). Retrieved 8 August 2020, from <https://twitter.com/HayvanseverGaze/status/407206953925234688>.

Altınova Gazete. (2019). Hükümlüler öğrencilerle kedi evi yaptı [Image]. Retrieved 8 August 2020, from <https://www.altinovagazete.com/genel/hukumluler-ogrencilerle-kedi-evi-yapti-h22764.html>.

Arslan, D. (2016). Kış Günlerinde Üşüyen Sokak Kedilerini Düşünen Güzel İnsanlardan 25 Kedi Evi Örneği [Image]. Retrieved 8 August 2020, from <https://listelist.com/kedi-evi/>.

Son Dakika. (2019). Kediler üşümesin diye 150 adet kedi evi yaptı [Image]. Retrieved 9 August 2020, from <https://www.sondakika.com/haber/haber-kediler-usumesin-diye-150-adet-kedi-evi-yapti-12747393/>.

Bursa Arena. (2017). Nilüfer'in ilk kedi parkı öğrencilerin desteğiyle açıldı [Image]. Retrieved 9 August 2020, from <https://www.bursaarena.com.tr/doga-ve-turizm/niluferin-ilk-kedi-parki-ogrencilerin-destegiyle-acildi-h20501.html>.

Aytekin, D. (2016). Bu Pazar: Kadıköy Sokak Kedileri Şenliği [Image]. Retrieved 9 August 2020, from <https://www.yesilist.com/bu-pazar-kadikoy-sokak-kedileri-senligi/>.

Hewat, K. (2011). Kedi Dünyası (p. 13). Koleksiyon.

Çağlayan, S. (2020). Sokak Kedisi Çerez (2nd ed.). Türkiye İş Bankası Kültür Yayınları.

Temiz, N. (2019). Kahraman Burunlar (1st ed.). Altın Kitaplar.

Garnier, S. (2018). Kedi Gibi Düşünmek ve Davranmak. Paloma Yayınevi.

Aykın, P. (2016). Sadece Hayvanseverlerin Anlayabileceği 10 İçten Duygu [Image]. Retrieved 9 August 2020, from <https://www.kooplog.com/hayvanseverlerin-hep-yasadigi-10-icten-duygu/>.

Hürriyet Gazetesi. (2015). Sokaktaki Hayvanlar İçin Bir Kap Su! [Image]. Retrieved 9 August 2020, from <https://www.hurriyet.com.tr/sokaktaki-hayvanlar-icin-bir-kap-su-37159353>.

Kika's World. (2018). Barınaklardaki Dostlarımız [Image]. Retrieved 9 August 2020, from <https://kikasworld.com/2018/12/02/hayvanlar-icin-surdurulebilir-sosyal->

[sorumluluk-projeleri/](#).

Kondosan. (2018). B c r Kedi [Video].

BBC Two-Horizon. (2013). Secret Life of the Cat [DVD].

Nil fer Belediyesi. (2016). Can dostları Nil fer'de g vende [Image]. Retrieved 9 August 2020, from http://www.nilufer.bel.tr/haber-3945-can_dostlari_niluferde_guvende.

Mynet. (2018). Diyarbakır'da sokak kedileri i in 20 ev yapıldı [Image]. Retrieved 9 August 2020, from <https://www.mynet.com/diyarbakirda-sokak-kedileri-icin-20-ev-yapildi-110103798948>.