Interspecies

An Imagination Design Toolkit

Activity Cards

imagination
LANCASTER

Introduction

The activity cards are designed to support many different goals and outcomes. They're organized according to five phases of a design process - follow them as a linear, comprehensive guide or use them more freely to supplement your existing practices. Working in tandem with the Support cards, these serve as a great introduction to interspecies design.

Anatomy of the activity card:

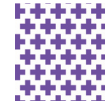|	
Stage of design process:	designated with a name, a pattern, and a color
Purpose:	a quick description of the activity, aimed at the desired outcome
Instructions:	the how-to that can be read out loud verbatim to facilitate a group
Materials:	suggestions for the bare-minimum to complete the activity
Tips:	possible considerations when planning or using the activities

Get Oriented

Equip yourself with the information you need to get started. This stage introduces empathetic problem solving and research, and the basics of interspecies design.

Frame

Learn from different perspectives and apply them to the bigger picture. This stage informs your design thinking through the lens of species limitatiosn and possibilities

Ideate

This is a gererative phase that results in first-round concepts. You'll explore the mismatches that exist in various experiences, and formulate species specific, purposeful interactions from your discoveries.
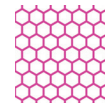
Iterate

Here's where you'll build and test prototypes of your solution. You'll stress test your concepts from a micro-view and holistically, as you continuously brainstorm and refine.

Optimize

Take a step back to evolve your assumptions. Review your solution from every angle, and measure its success in terms of nonhuman animal experience

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Purpose

To unearth why humans trust and mistrust interactions with nonhuman animals.

Instructions

1. Write on paper or a white board "I'd trust a nonhuman animal, assisted by technology, to _____ ,but I'd only trust a human animals, assisted by technology to _____ ."
2. Fill out the blanks as many times as possible in five minutes
3. Reflect and discuss
   - In the range of responses, what stands out? What are the forces that impact trust between species?
   - How could we build trust between species using technology?

Materials

Note taking supplies

Tips

Use this activity as an icebreaker in a group. Write down responses or share them out loud.

List in groups all the activities human animals undertake on behalf of nonhuman animals without consent.

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Purpose

Thinking about the intent of other species in domestic settings

Instructions

1. Choose a common interspecies interaction with a common domestic animal such as grooming, playing with a ball, feeding, or petting.
2. Choose a partner and role play the interaction.
3. Take note of both the verbal and non-verbal cues. Including things like how the information was shared, any obvious emotional responses, etc.
4. Repeat with a real nonhuman animal.
5. Reflect and discuss the differences in the interactions.
   · Where did the nonhuman animal act predicably?
   · Where did you project complex human emotions onto the nonhuman animal?

Materials

Note taking supplies
A familair nonhuman animal

Tips

Try a variety of interactions ranging from strictly transactional to pretty personal
Do this as a quick 5-minute exercise, or pace it for a more thoughtful role-play that could be re-enacted and discussed amongst the group.

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Purpose

To learn from an another species and relect on your relationship with it.

Instructions

1. Sit in an empty room with a familiar dog or other familiar domestic nonhuman animal. Do not initiate play or interact with it at first.
2. Allow the nonhuman animal to initiate and lead the interactions between you and it, do not project purpose or reason onto the nonhuman animal.
3. Sit for a while and be with the nonhuman animal on its terms, do not seek comfort or a particular emotional response from the nonhuman animal.
   - Was there anything different about your interactions?
   - Did you notice anything different about the nonhuman animal when the relationship wasn't lead by you?

Materials

A familiar nonhuman animal

Tips

Try not to have purpose other than to share a space with the nonhuman animal.
Try not to lead the interactions, but let the nonhuman animal lead.

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Purpose

To pore over the research and begin to define the scope of a design solution

Instructions

1. With your research notes at hand, answer the following questions.
   - With nonhuman capabilities and motivations in mind, what were the strongest themes you discovered?
   - What mismatches did you find in the interspecies interaction?
   - What were the top two methods of communicating (touch, sight, hearing, voice)?
   - What's the design challenge to be solved and the need it addresses?
   - Why does it matter to nonhuman animals?

Materials

White board or large paper

Tips

Keep your design challenge focused on the research insights that you've uncovered. If you have access to other research studies, consider incorporating that into your synthesis process.

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Purpose

To map species abilities on a spectrum to inform solutions that benefit everyone.

Instructions

1. Observe a range of species in a wide range of contexts; domestic, captive, wild, and livestock.
2. Watch the way they move and explore their environment.
3. Note those situations in which they experience friction, or limited accessibility.
4. Create a spectrum that illustrates how a different contexts and bodies create different limitations and affordances for interaction.

Materials

The Persona Spectrum support card

Tips

Bear in mind that an accomplishment for this species can be a simple task, or a larger interaction

This is a great introductory exercise to understand interspecies design broadly, and also acts as a good check-in exercise during a more granular design process.

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Purpose

To consider design challenges in terms of a nonhuman animals ecosystem.

Instructions

1. With a particular nonhuman animal in mind, make note of who they interact with every day.
   Who do they rely on? Trust? Enjoy?
2. Draw a map of the nonhuman animal and their key interactions with 3-5 human animals. Include the different types of interactions that typically take place, such as feeding, petting, chasing, playing, licking, poking and stroking
3. List the mismatches between the nonhuman animal and their environment.

Materials

The social context support card
Note taking supplies

Tips

There's no one "right" way to map the network. Do what makes sense for your creative process.
Do this activity after learning about the challenges, enablement, successes, and motivations of a nonhuman animal

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Purpose

To show how detailed observation of nonhuman animals interacting can stimulate and inspire interspecies design

Instructions

1. Select a location where you can observe nonhuman animals interacting with each other. Ideally, a place where you can take notes, sketch and observe for an extended amount of time such as a zoo or farm.
2. Focus your attention on the little things, so that your awareness is heightened during your observations. Take notice of verbal and nonverbal interactions.
3. Write or draw the interactions happening between nonhumans and objects. Repeat with human animals and technology.
4. Reflect on your observations to further explore mismatches of aniaml-to-animal and animal-to-technology interactions.

Materials

Examples of Mismatch support card

Tips

Pay attention to how animals move through a space and know their environment – their emotional cues and body language. Were their experiences negative or positive? How would you know?

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Purpose

To draw parallels between the role of human animal behavior and nonhuman animal behavior.

Instructions

1. Alone or in a group, brainstorm a list of human animal interactions with technology which are not specialist but domestic and everyday.
2. Select a range of nonhuman animals from a range of habitats and environments - domestic, wild, farm and captive.
3. Brainstorm ways that these nonhuman animals complete simular tasks or behaviours.

Materials

Note taking supplies

Tips

Contrast two different task analogies to understand the nuances of the tasks involved.

Purpose

To brainstorm opportunities for an improved product or experience, to make it more inclusive of other species who cohabit the environment.

Instructions

1. From your research, make a list of all the mismatched interactions in a domestic environment which exclude nonhuman animal cohabitants. Consider how the technology appears and how they might interpret the environmental cues.

2. Create a focused question about the opportunity to improve your product or service experience.
   For example:
   "How might we create..."
   "How might we improve..."
   "How might we enable..."

3. Go through the list of opportunities and select the three you're most interested in exploring further.

Materials

Examples of Mismatch support card
Large paper and markers
Note taking supplies

Tips

Writing the opportunities in the format of a question will help during the brainstorming process to keep people focused. Going one by one down the list of mismatches can help prevent overwhelming participants.
Think about how a nonhuman animal feels, sees and encounters their domestic environment.

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Purpose

To generate design concepts based on inspiration from mismatched interactions.

Instructions

1. From the list you generated in Mismatch to Solution I, pick the three you're most interested in.
   As individuals, use the first idea and brainstorm for 3-5 minutes to generate a list of possible solutions. Write the solutions on sticky notes. One idea per note.

2.

3. Repeat step #2 with your next two choices.

4. If you're in a group, share your ideas and group them in clusters of like ideas. Or filter the ideas according to what you'd like to work on as a team.

Materials

Examples of Mismatch support card
Sticky notes, pens

Tips

Place emphasis on generating a volume of ideas before clustering and filtering.
Start the activity with a one-minute ice breaker that illustrates how much can be accomplished in a one-minute brainstorm session. Give participants a word like "jump" and ask them to write down their associations with the word.

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Purpose

To articulate each small detail in a sequence of interactions in order to find ways to make the interactions more inclusive.

Instructions

1. From an existing design or prototype, choose a specific concept you want to improve.

2. Compose a sequence of frames, or otherwise outline the following steps: Whether the sequence is user or system initiated.
    - How the user interacts with the trigger.
    - How the feedback begins.
    - How the user interacts with the feedback.
    - What happens immediately after the feedback is complete.
    - If the system has multiple species using it, does it need species specific interfaces and feedback.

Materials

White board or large paper
Markers
Sticky notes

Tips

Introduce the activity by using the example of tying a shoe with your teeth. Put a pair of shoes on your hands and try and tie your shoes with your teeth as a microinteraction. Ask people to write out the steps to tie a shoe.
Then in pairs, have one person read the directions while the other person follows the steps. It'll shine a light on how precise you need to be about step-by-step details.

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Purpose

To focus on technology's role in an interaction to sharpen, simplify, and prioritize your designs.

Instructions

1. Select your favorite design concepts or existing prototype.
2. Using the Role of Technology support card as reference, identify and list the role technology is playing in your design.
3. Evaluate each design and determine if the technology you've chosen is the simplest or most appropriate for the result you want to achieve.
4. Evaluate how another species will know how to use this technology.

Materials

Existing design concept or prototype
Examples of Mismatch support card
Role of Technology support card
Note taking supplies

Tips

Use this exercise to prioritize concepts before the Iterate stage.
During the Iterate and Optimize stages, you can evaluate your solutions with this role to make sure they accomplish what you intended.

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Purpose

To refine solutions in a quick, iterative, low cost, user-focused manner

Instructions

1. List the microinteractions in your design.
2. Choose one interaction to prototype and one individual nonhuman animal to prototype for.
3. Using materials at hand, build a low-fidelity prototype that does the following:
   • Addresses each step of the interaction.
   • Can communicate its own function without explanation to another species
4. Test the prototype with users and observe for both delight and pain points.
   List ways that the design would need to be adapted for other members of the same species

Materials

Use paper, stickers, clay, recycled materials, recorded sounds, video—whatever materials you think will help you create a rough demonstration of how your solution will work.

Tips

The value is observation of both the positive and the negative.

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Purpose

To reveal opportunities for improving your solution by simulating temporary and situational limitations.

Instructions

1. Write the sequence of steps a human animal will take in your solution.
2. From the Animality support card, choose one interaction.
3. Recreate this animal soma for yourself.
4. Go through the sequence of steps you wrote in #1.
5. Note what could be improved.
6. Adjust your design.
7. Repeat with soma from the Animality support card.

Materials

Animality support card
A prototype (low to high fidelity).

Tips

Build your solution by creating low to medium fidelity prototypes. Examine and define what you want the interactive experience to be holistically and from a micro-view.

Iteration takes into consideration the full Persona Spectrum and what's appropriate physically, contextually, environmentally, and socially for the nonhuman animal involved.

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Purpose

To evaluate whether your concept can adapt to different contexts. When a nonhuman animal's environment changes, their capabilities could change.

Instructions

1. From the Physical or Social Context cards choose one context.
2. From the Animality card, choose one. How well will your solution adapt to
3. that combination? List modifications you would make to
4. adapt your solution. Revise your scenario to include how
5. it responds. Repeat with other combinations.
6.

Materials

Conditions support card
Social Context support card
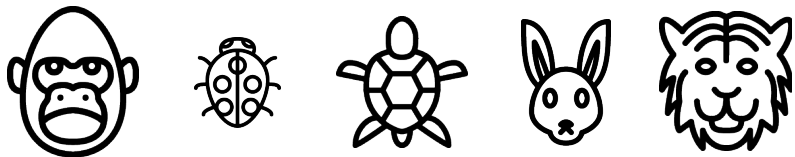Physical Context support card
Animality support card

Tips

Allow plenty of time as this is an exercise that requires reflective thinking.
This exercise is similar to the Situational Adaptation activity. If you're short on time, choose one of the two.

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Purpose

To discover ways to adapt your solution to work for a variety of situational limitations.

Instructions

1. Using the support cards choose:
   - One example of physical context
   - One example of social context
   - One example of time of day
2. Take 3-5 minutes, think of the three contexts together and list as many animaility limitations or affordances of your artifact you can think of.
3. Think of how your solution can adapt to these situational limitations or affordances.
4. Revise your solution to adapt.
5. Go back to step #2 and repeat the process with a different combination of physical, social, and time-of-day examples.

Materials

Conditions support card
Social Context support card
Physical Context support card
Animalility support card
Note taking supplies

Tips

Allow plenty of time as this exercise requires reflective thinking.
Consider using this with existing solutions to uncover how exclusion is designed.

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Activity Cards

Different environments enable different capabilities, present different limitations, and have different rules and social norms.

Here are a few examples for inspiration:

A farm

A circus

A Library

An animal testing lab

The wild

At home

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Human social contexts come with different rules, behaviors, and social norms which can effect nonhuman animals.

Here are some examples of social contexts for inspiration:

Alone in a field

As a companion animal on a plane

In a crowded town centre with Humans

A guide animal attending Church

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Nonhuman animals have a range of different bodies which give them a diverse range of new and different interaction affordances with technology. Different somas allow different modes of interaction

Bleet

Nudge

Fly

Stick

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Most digital products have one or two roles that are at the core of their functionality.
Some examples of common roles are:

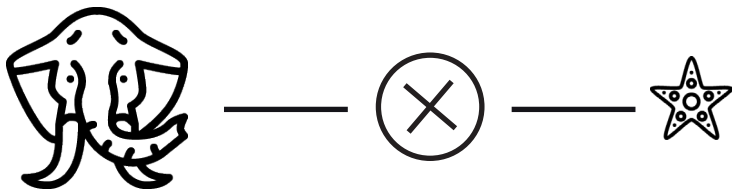Animal Welfare

Interspecies Communication

Animal Inclusion

Increased productivity & yeild

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Exclusion can be caused by mismatched interactions between species, between nonhuman animals and inapproprate technology or between nonhuman animals and the scale and type of objects they encounter
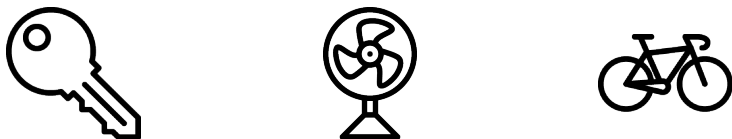
Between species

Nonhuman Animals and Technology

Nonhuman Animal and object

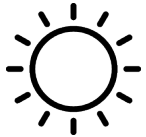
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As a lot of nonhuman animals live outside different environmental conditions can change our situational limitations.
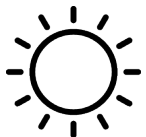Here are some examples of conditions to consider.

Weather

Temperature

Time of the day

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We use a Persona Spectrum to understand different cultural catagories of animality across a range of cultural contexts. It's a quick tool to help foster empathy.

Human

Domestic

Live Stock

Captive

Wild

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