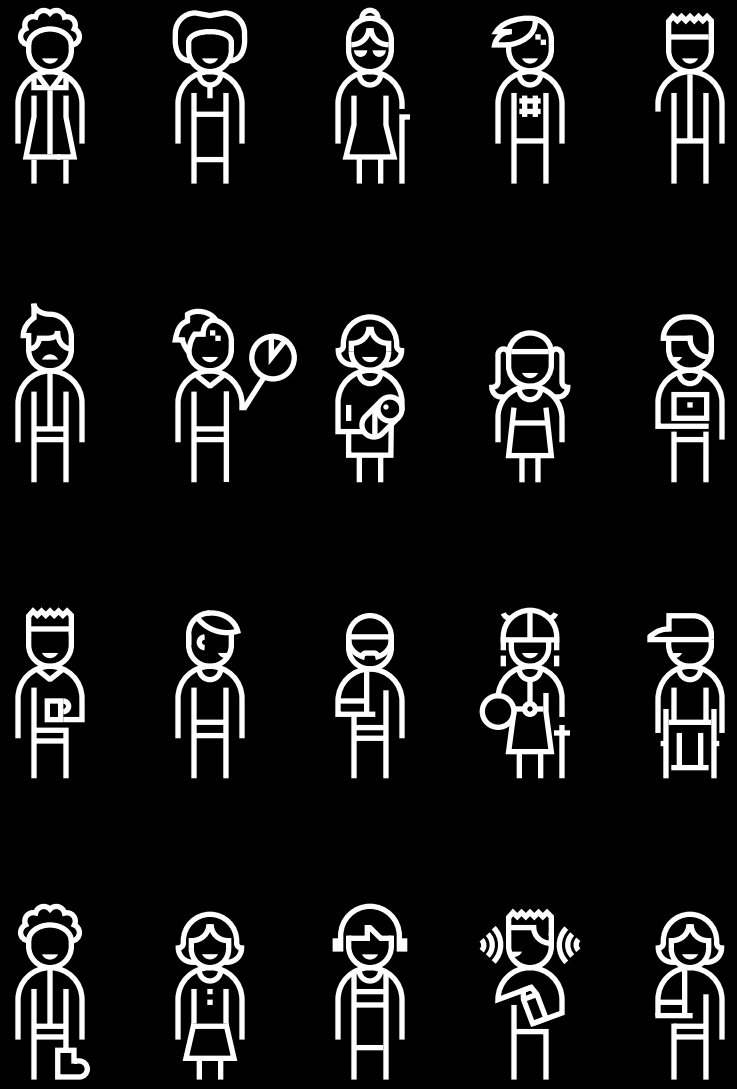
Inclusive

A Microsoft Design Toolkit

Activity Cards



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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 inclusive 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 inclusive design.

Frame

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

Ideate

This is a generative phase that results in first-round concepts. You'll explore the mismatches that exist in various experiences, and formulate human-led, 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 inclusive design and real-world feasibility.

Purpose

To unearth why humans trust and mistrust interactions with technology.

Instructions

1. Write on paper or a white board "I'd trust a computer to _____, but I'd only trust a human to _____."
2. Fill in 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?
   - How could technology behave better to positively impact trust?

Materials

Note taking supplies

Tips

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

Purpose

To shed light on the potential shortcomings of human-to-computer interactions.

Instructions

1. Choose a common human interaction, like ordering coffee, making a return, or discussing dinner plans.
2. Choose a partner and role play the interaction.
3. Take note of both verbal and non-verbal cues. Include things like how the information was shared, any obvious emotional responses, etc.
4. Repeat the scenario with one partner playing the role of a computer.
5. Reflect and discuss the differences in the interactions.
   - Where did communication breakdown? Why?
   - What can we learn from the human interaction that could improve the human-to-computer interaction?

Materials

Note taking supplies

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.

Purpose

To learn from the expertise of people who experience disability or exclusion on a permanent basis.

Instructions

1. Before beginning, complete accessibility sensitivity training (see Tips).
2. Interview people who have a variety of abilities and permanent disabilities that exclude them from activities.
3. During your conversations, make note of the following:
   - What strengths and abilities do they show regularly?
   - What is their motivation or goal for doing their daily tasks?
   - What themes are similar between their permanent disability and those that are temporary or situational?
   - What are the specific challenges of their interactions?
   - How might you get the best sense of their daily interactions with people or technology?

Materials

Interview questions
Note taking supplies
A recording device

Tips

Ask your network, peers, local academic community, or nonprofit organizations if they can introduce you to a few people with different abilities.
If you can't attend accessibility sensitivity training, this video has some important basics: https://www.youtube.com/watch?v=Gv1aDEFlXq8

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 human capabilities and motivations in mind, what were the strongest themes you discovered?
   - What mismatches did you find in the human-to-technology interaction?
   - What were the top two methods of access (touch, sight, hearing, voice)?
   - What's the human-to-human interaction that informs the behavior of your solution?
   - What's the design challenge to be solved and the need it addresses?
   - Why does it matter to the audience?

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.

Frame | Create a Persona Spectrum

Purpose

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

Instructions

1. Interview a person(s) with a permanent limit to at least one ability.
2. Ask them about what they like to do and how they go about it.
3. Note those situations in which they experience friction, or limited accessibility.
4. Create a spectrum that illustrates how a similar limitation extends to temporary and situational scenarios.

Materials

The Persona Spectrum support card

Tips

Bear in mind that an accomplishment for this person can be a simple task, or a larger concern.

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

Frame | Persona Network

Purpose

To consider design challenges in terms of someone's personal ecosystem.

Instructions

1. With a particular person in mind, make note of who they interact with every day. Who do they rely on? Trust? Enjoy?
2. Draw a map of the person and their key interactions with 3-5 people. Include the different types of interactions that typically take place, such as making plans for dinner or going to work.
3. List the mismatches between the person 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 person(s) with a permanent disability.

Frame | Interaction Diary

Purpose

To show how detailed observation of people interacting can stimulate and inspire inclusive design.

Instructions

1. Select a location where you can observe people interacting with each other. Ideally, a place where you can take notes, sketch and observe for an extended amount of time.
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 humans and object. Repeat with humans and technology.
4. Reflect on your observations to further explore mismatches of human-to-human and human-to-technology interactions.

Materials

Examples of Mismatch support card

Tips

Pay attention to how people move through a space – their emotional cues and body language. Were their experiences negative or positive?

Frame | Human Analogy

Purpose

To draw parallels between the role of human behavior and technology's behavior.

Instructions

1. Alone or in a group, brainstorm for 3-5 minutes to identify the human equivalent of the tech solution you're designing. Think of it in terms of jobs - is it an assistant? A teacher?
2. Set up time to interview people who perform those roles. Take note of what makes them good at their work.
3. Brainstorm ways to incorporate those insights into the design of your solution's behavior.

Materials

Note taking supplies

Tips

Contrast two different job analogies to understand the nuances of the tasks involved.
Consider pre-arranging for a group.

Ideate | Mismatch to Solution I

Purpose

To brainstorm opportunities for an improved product or experience, based on mismatched interactions.

Instructions

1. From your research, make a list of all the mismatched interactions that people experience.
2. For each mismatched interaction listed, 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.

Ideate | Mismatch to Solution II

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.
2. 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.
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.

Ideate | Design a Microinteraction

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.

Materials

White board or large paper
Markers
Sticky notes

Tips

Introduce the activity by using the example of tying a shoe 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.

Ideate | Evaluate Technology's Role

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.

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.

Iterate | Low-Fidelity Prototype

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.
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.
4. Test the prototype with users and observe for both delight and pain points.

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.

People can role-play the technology with a pre-determined script.

Iterate | Simulations

Purpose

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

Instructions

1. Write the sequence of steps a user will take in your solution.
2. From the Temporary/Situational Limit support card, choose one limitation.
3. Recreate this limitation 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 other limitations from the Temporary/Situational Limit support card.

Materials

Temporary/Situational Limit 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 person(s) involved.

Purpose

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

Instructions

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

Materials

Conditions support card
Social Context support card
Physical Context support card
Temporary/ Situational Limit 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.

Optimize | Situational Adaptation

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 situational limitations of your product you can think of.
3. Think of how your solution can adapt to these situational limitations.
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
Temporary/Situational Limit 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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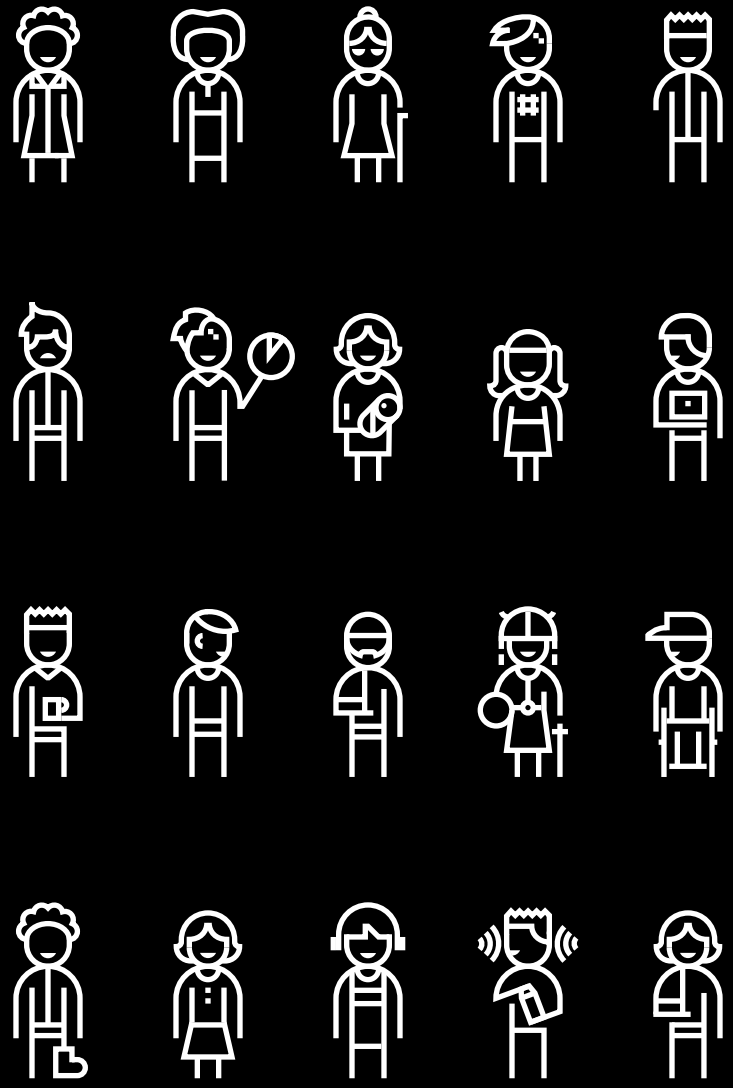
Support Cards



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Support Card | Physical Context

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

Here are a few examples for inspiration:

At home

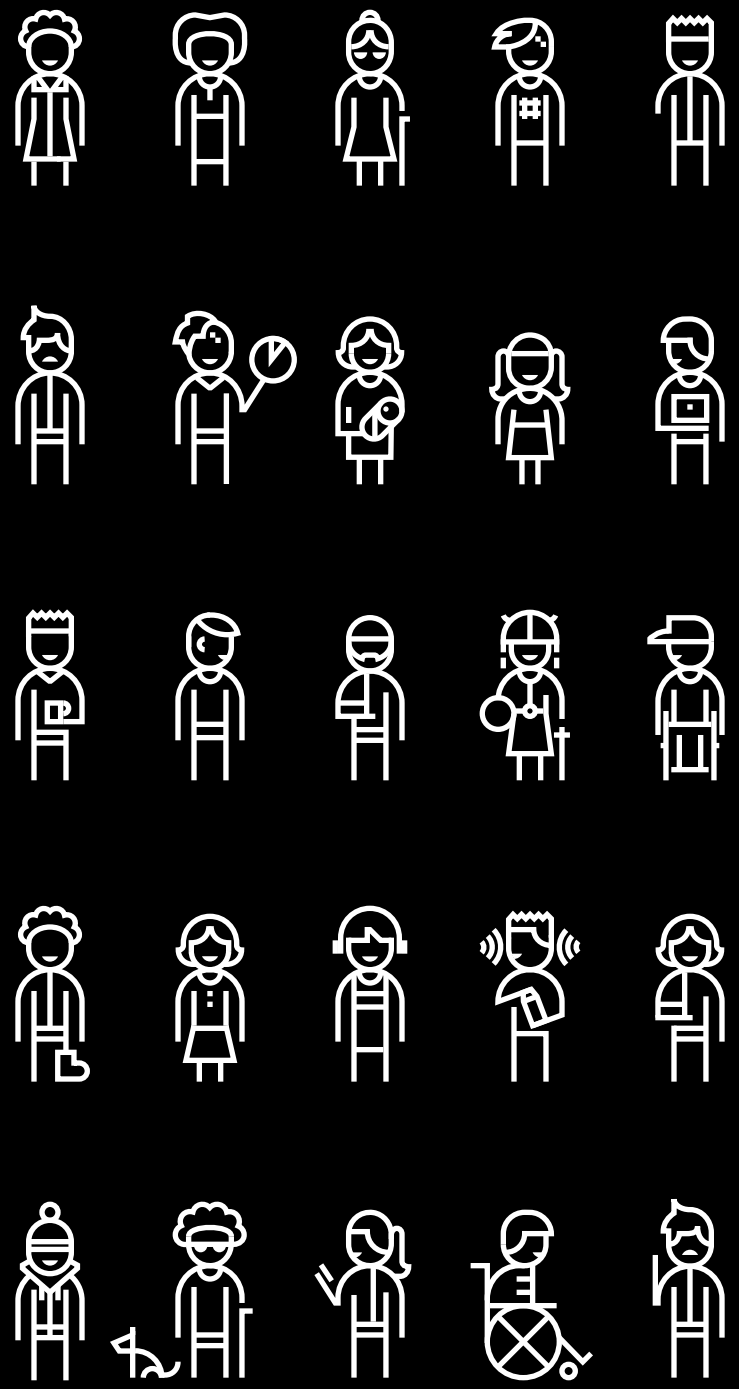
In the wilderness

In a library

In a car

In the city center

On the bus



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Support Card | Social Context

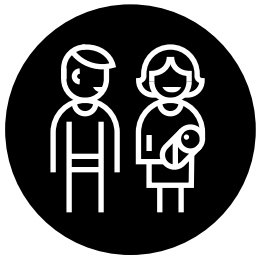
Different social contexts come with different rules, behaviors, and social norms.

Here are some examples of social contexts for inspiration:

Alone

With coworkers

In a crowd



With friends and family

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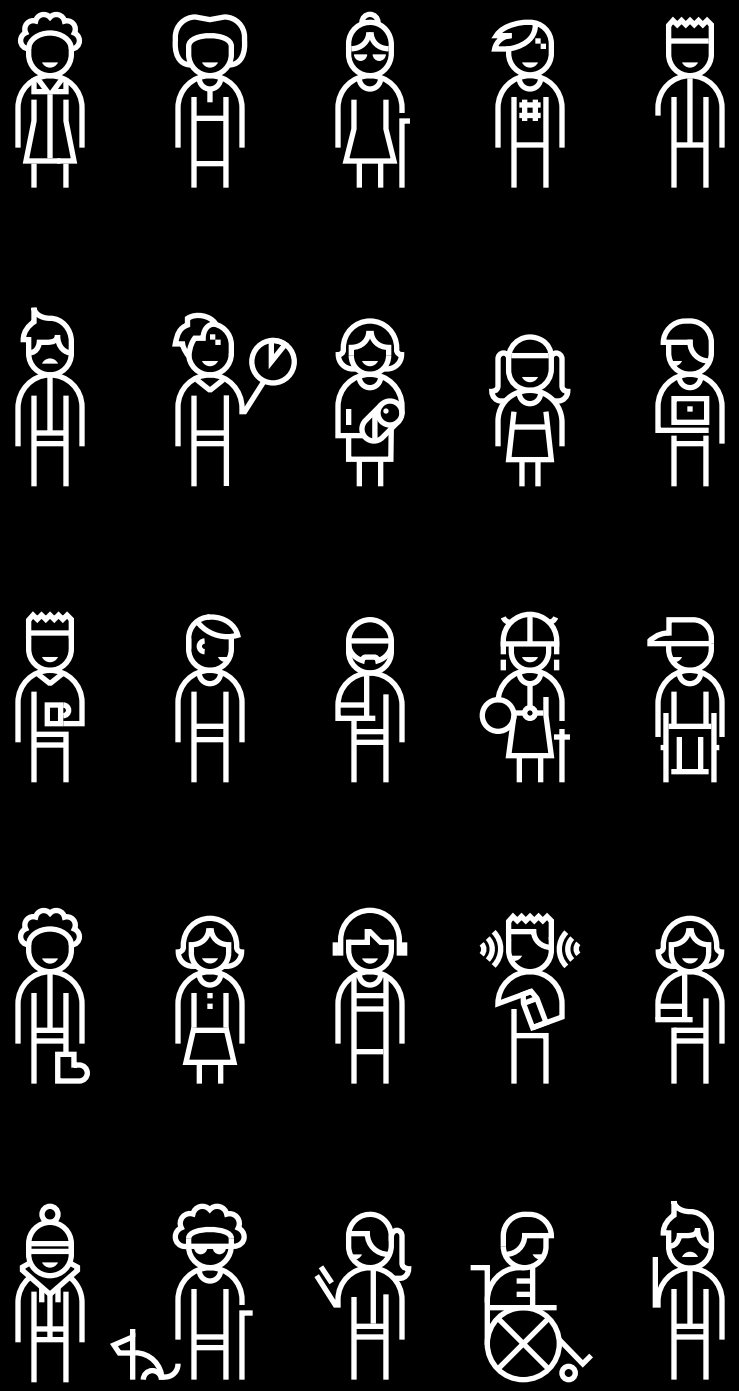
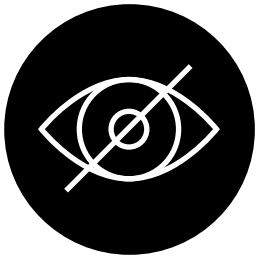
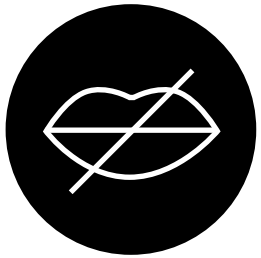


Support Card | Temporary/Situational Limit

Disabilities are often temporary or situational. Use this card to pick which limitations apply to your scenario.



Can’t see



Can’t speak

Can’t hear

Can’t touch

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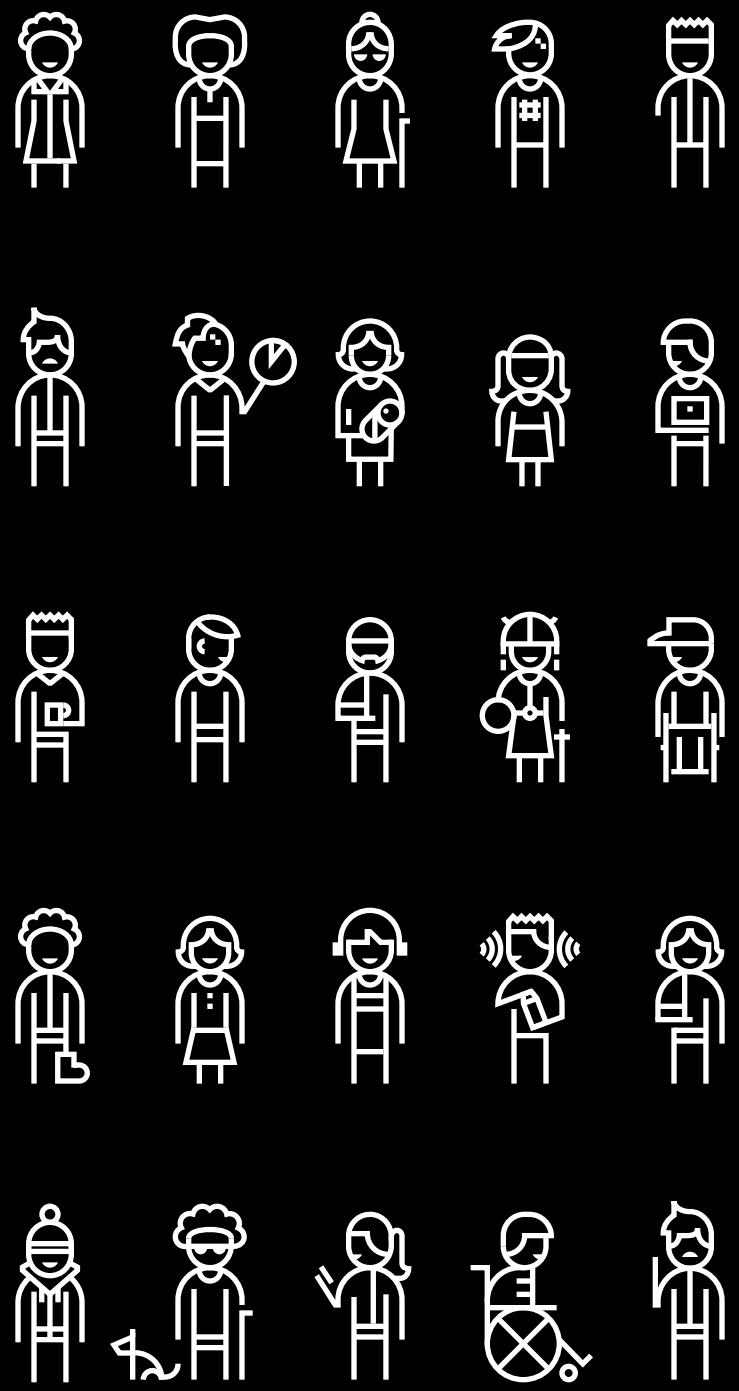
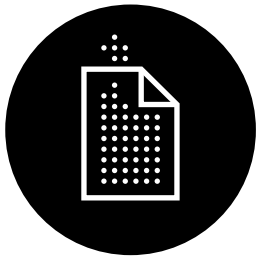


Support Card | Role of Technology

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

Some examples of common roles are:



Collect & summarize

Translate

Transport

Listen

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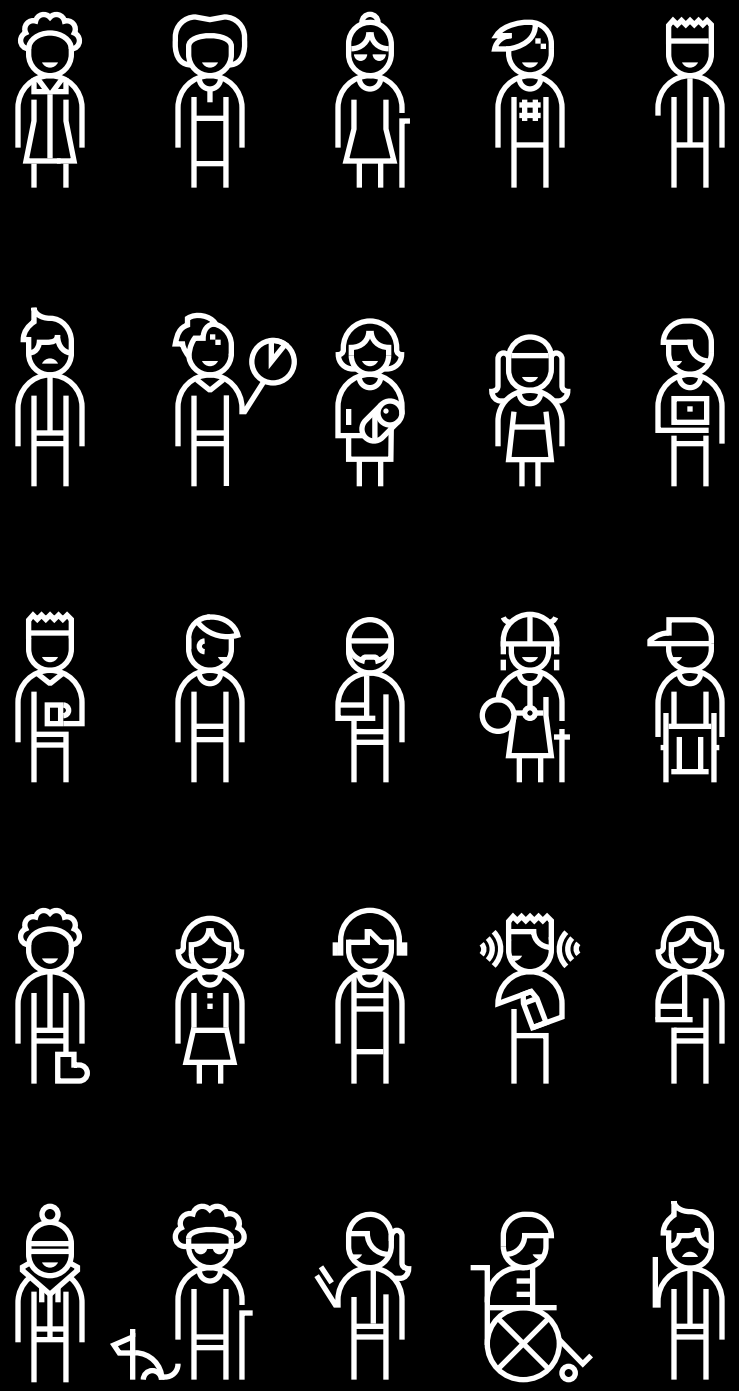
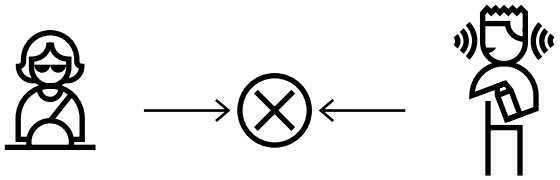


Support Card | Examples of Mismatch

Exclusion can be caused by mismatched interactions between other humans, humans and their environments, and humans and objects.

A few examples of these are:

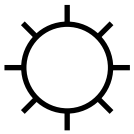
Between humans



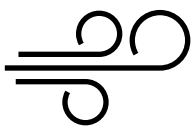
Can’t type

Can’t hear

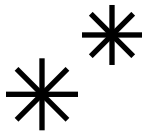
Human+ enviroment



Glare from sun



Windy



Cold

Human+ object

Left-handed user

Narrow door

Tall shelf

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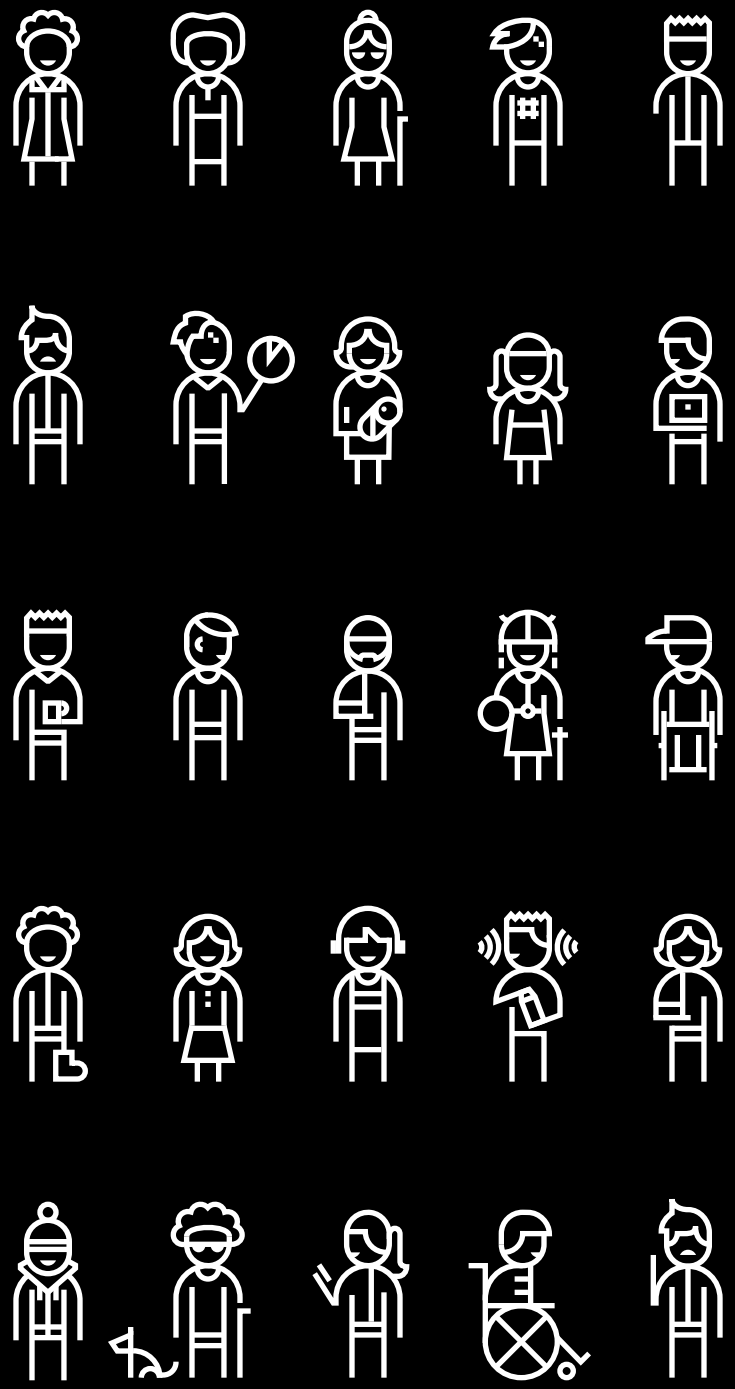
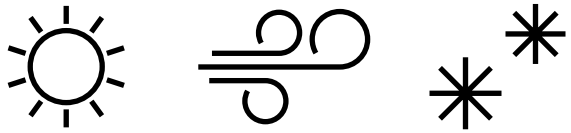


Support Card | Conditions

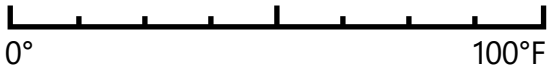
Different environmental conditions can change our situational limitations.

Here are some examples of conditions to consider.

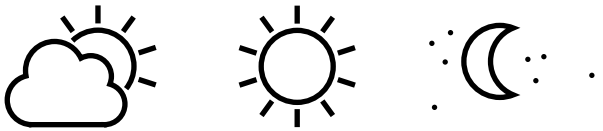
Weather



Temperature



Time of the day



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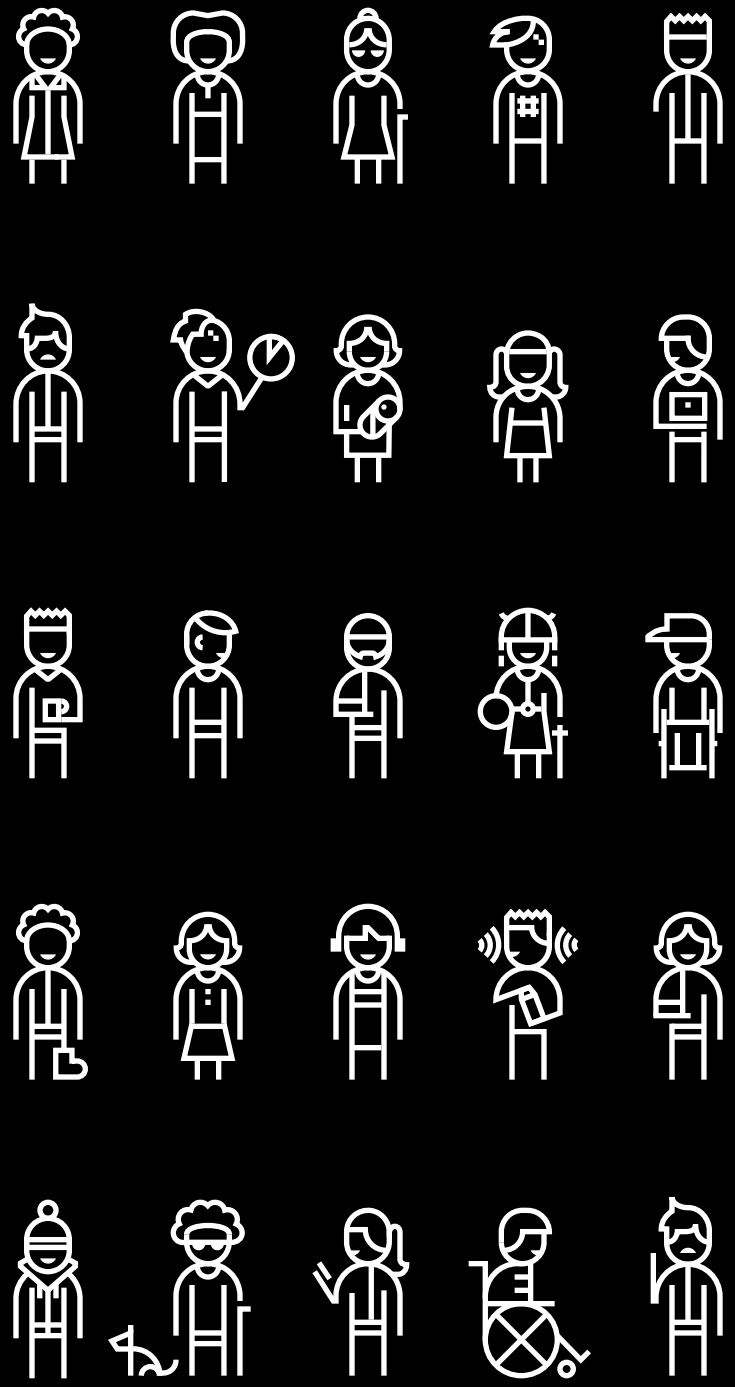
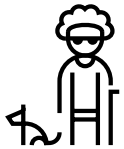


Support Card | The Persona Spectrum

We use a Persona Spectrum to understand related limitations across a spectrum of permanent, temporary, and situational disabilities. It's a quick tool to help foster empathy and to show how a solution can scale to a broader audience.

	Permanent	Temporary	Situational
Touch	 One arm	 Arm injury	 New parent
See	 Blind	 Cataract	 Distracted driver
Hear	 Deaf	 Ear infection	 Bartender
Speak	 Non-verbal	 Laryngitis	 Heavy accent

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