Template

Empathy map canvas

Use this framework to empathize with a customer, user, or any person who is affected by a team's work. Document and discuss your observations and note your assumptions to gain more empathy for the people you serve.

Originally created by Dave Gray at

XPLANE®

Share template feedback

Develop shared understanding and empathy

Summarize the data you have gathered related to the people that are impacted by your work. It will help you generate ideas, prioritize features, or discuss decisions.

WHO are we empathizing with?

Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

The person that we want to understand in a visualization tool for electric vehicle charge and range analysis is likely an electric vehicle owner or potential owner who is interested in understanding how far they can drive on a single charge and where they can recharge their vehicle.

What do they need to DO?

What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

What do they HEAR?

What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

As an electric vehicle owner, it is important to have a good understanding of your vehicle's charging requirements and range limitations. This knowledge will help you plan your trips and ensure that you can reach your destination without running out of power.

The situation of electric vehicle owners with regards to charging and range depends on several factors, including the availability and accessibility of charging infrastructure, the range of their vehicle's battery, and their driving habits.

The goal of electric vehicle charge and range analysis is to understand how far an electric vehicle can travel on a single charge, and how to optimize the vehicle's charging behavior to maximize its range and efficiency.

What do they THINK and FEEL?

PAINS

What are their fears, frustrations, and anxieties?

GAINS

What are their wants, needs, hopes, and dreams?

Maintenance needs and safety requirements

increase safety in climatic condition

batteries need sealded shell and shold undergo testing

when they bought the new tested vehicle in

lifetime costs are lower

emit fewer greenhouse gases and air polutants than petrol or diesel cars

1. "Electric vehicles have a limited range, so they're not practical for long trips." Some people may believe that electric vehicles can only travel short distances before needing to be recharged.

They fears about the cost

People need electric vehicle to be less in cost

how far they can travel without running out of battery

People think it should be less danger

1. Range anxiety: This is a common concern among people who are not familiar with EVs.
2. Charging time: Another concern that some people have is that charging an EV takes a long time.

1. Charging infrastructure: Electric vehicle owners might also be hearing about the availability and accessibility of charging stations.
2. Cost of ownership: Another topic that electric vehicle owners might be hearing about is the cost of owning an electric vehicle, including the cost of charging, maintenance, and insurance.

What other thoughts and feelings might influence their behavior?

sone electric vehicle owners may be influensed by the atitudes and behaviours of the social network including friends family and online communities

many electric vehicle owners are motivated by a desire to reduce their carbon footprint and protect the environment from the harmful effects

What do they SEE?

What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

What do they SAY?

What have we heard them say?
What can we magine them saying?

EV owners may discuss the amount of time it takes to charge their vehicle, which can vary depending on the charging method used. For example, Level 1 charging from a standard wall outlet may take several hours to fully charge the battery,

I need to find a charging station soon. My battery is getting low."

"I'm worried about running out of range before I reach my destination. I hope there are more charging options along the way."

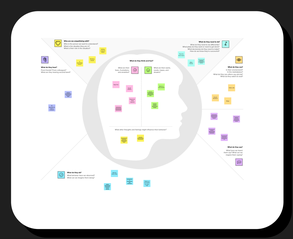
What do they DO?

What do they do today?
What behavior have we observed?
What can we imagine them doing?

Many electric vehicle owners choose to charge their vehicles at home using a Level 2 charging station.

Electric vehicles have a limited range, so it's important to plan your trips in advance and consider the availability of charging stations along your route.

Electric vehicle owners have observed that the charging time for their vehicles can vary depending on the charging method used. For example, charging an electric vehicle



Need some inspiration?

See a finished version of this template to kickstart your work.

Open example