

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



Share template feedback

Need some

inspiration?

of this template to

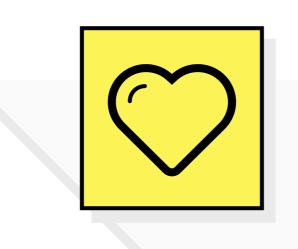
kickstart your work.

See a finished version



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?

> As an electric vehicle owner, it is important to have a god understanding of your vehicles charging requirements and range limitation. 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

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.

PAINS

What are their fears,

frustrations, and

anxieties?

People still lack

access to

reliable to

affordable

electricity

leading

Struggles in

efficiency and

grid capacity

Some electric vehicle

owners may be

influenced by the

of the social network

including friends

& family and online

communities.

GOAL

What do they THINK and FEEL?

GAINS

Increased

energy

security and

flexibility of

changing tech

What are their wants,

Reduced

emission

and noise

reduction

Many electric vehicle

owners are motivated

by a desire to reduce

their carbon footprint

and protect the

environment from

the harmfyl effects.

needs, hopes, and dreams?

To develop more accurate range prediction models

What do they need to DO?

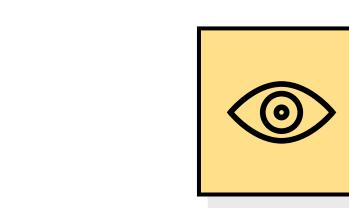
What do they need to do differently? What job(s) do they want or need to get

What decision(s) do they need to make? How will we know they were successful?

To develop more efficient charging algorithms

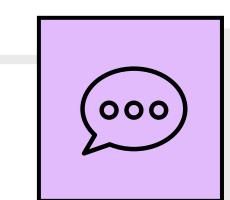
Including level 3 fast charging stations that can be installed in various palces

Publications such as automotive news and green car reports



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

> Conferences and trade shows share info on the latest trends

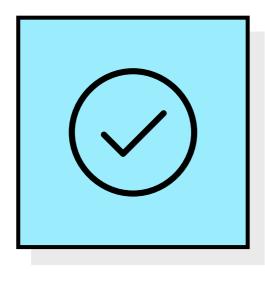
> > Information available for individuals interested to vehicle charge and range analysis

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?

About the development of battery and new technologies like smart meters and power management system

> Investment in the transition away from fossil fuel power vehicles



What do they DO?

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

> To improve the efficiency and usability of electric vehicles infrastructure

To demonstrate the commitment of researches and government to develop sustainable transportation

What other thoughts and feelings might influence their behavior?

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

