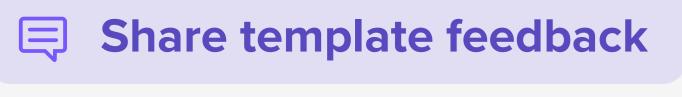


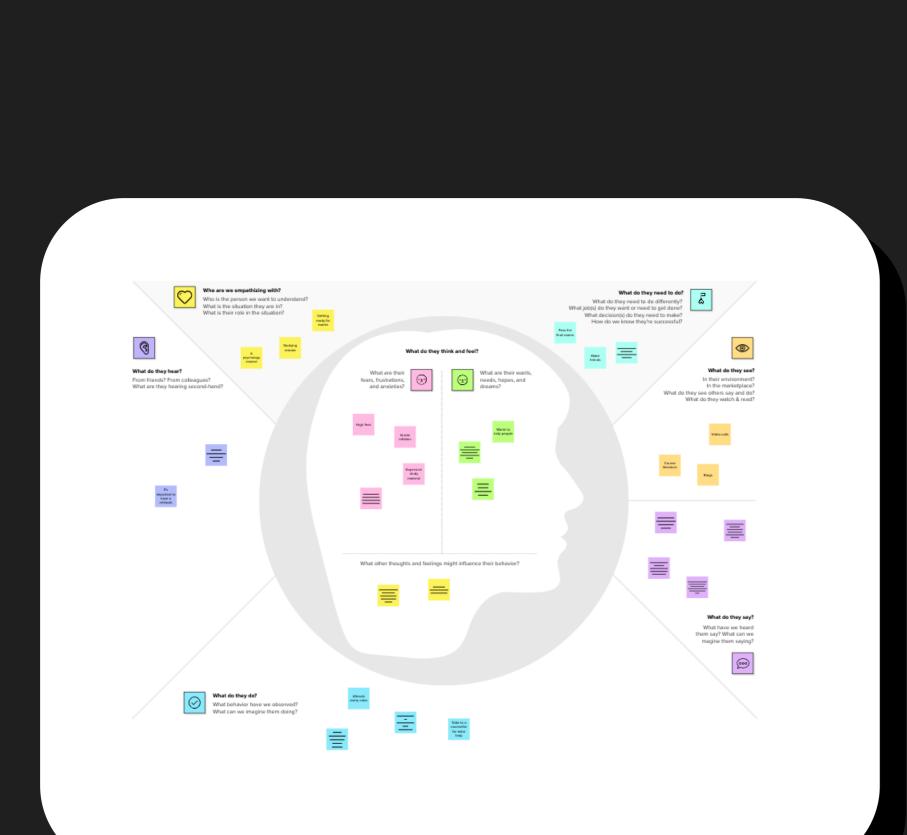
canvas

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.

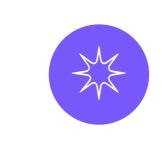
Originally created by Dave Gray at





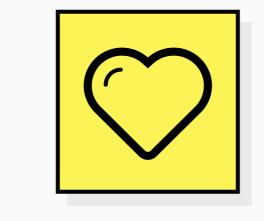


Need some inspiration? See a finished version of this template to kickstart your work.



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.



What do they HEAR?

What are they hearing others say?

What are they hearing from friends?

What are they hearing second-hand?

About the

development of

battery and new

technologies like

smart meters and

power

management

systems.

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?

What are they hearing from colleagues?

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?

> To determine the vehicles power and battery life in a single charge

Different people might want to learn depending on their specific interests

GOAL

What do they THINK and FEEL?

PAINS What are their fears,

People still lack access to reliable and affordable

electricity,

leading.

frustrations, and anxieties?

Struggles in cost efficiency and grid

capacity

(J)

GAINS

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

Reduced emission and noise reduction

Increased energy security and flexibility of changing tech

Environmental concerns and economic considerations of some people

What other thoughts and feelings might influence their behavior?

To improve the efficiency and usablity of electric vehicles infrastructure

To demostrate the commitment of reasearchers and government to develop sustainable transportation

What do they need to DO?

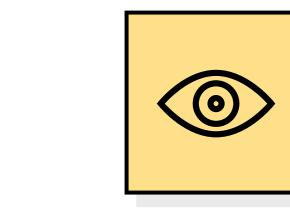
What do they need to do differently? What job(s) do they want or need to get done? What decision(s) do they need to make? How will we know they were successful?

To develop more accurate range prediction models



To develop more efficient charging algorithms

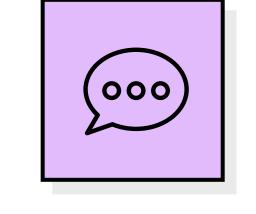
Including level 3 fast charging stations that can be installed in various places



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?

Publications such as automotive news and green car reports



What do they SAY?

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

Conferences and trade shows share info on the latest trends

Information available for individuals intrested to vehicle charge and range analysis

