

# Empathy map canvas

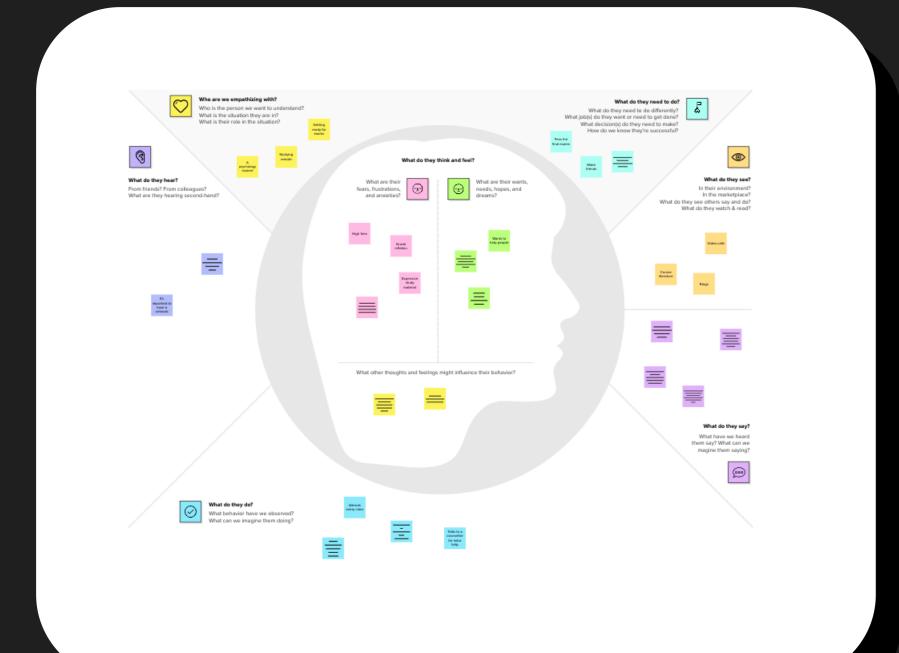
Use this framework to empathize with a customer, user, or any person who is affected by a team's work.

Document and discuss your observations and note your assumptions to gain more empathy for the people you serve.

Originally created by Dave Gray at







Need some inspiration?

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

Open example



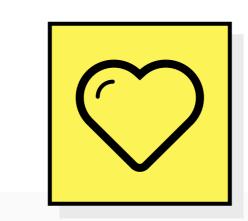
# VISUALIZATION TOOLS FOR ELECTRIC VEHICLES AND RANGE ANALYSIS

\*Specify the Business Problem.

\*Business Requirements.

\*Literature Survey

\*Social or Business Impact.



# WHO are we empathizing with?

1.The people who are unaware of the electric vehicles.2.They are in the situation with un-educate about electric vehicles.3. (i) They are the members of the global community.

(ii) They need to understand the knowledge of electric vehicles and their range analysis.

## What do they HEAR?

efficiency of the vehicle.

\*45% of respondents stated pure electric vehicles were just as good as or better than traditional gasoline vehicles.

\*Range refers to how far a vehicle can go on a single charge.

\*Range is calculated by dividing the amount of energy in the batteries by the

GOAL

What do they THINK and FEEL?

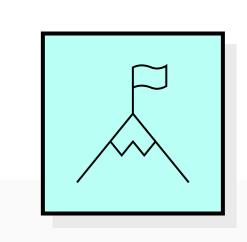
What do they need to DO?

To reduce the use of petrol vehicle to electric vehicles.

To understand current and potential electric car owner's needs and pain points.

Build a solution that helps potential and current electric car owners.

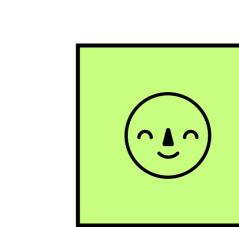
EV companies can best meet these demands by outsourcing to a manufacturing partner.





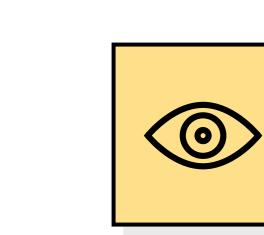
Improper use of these stations can lead to shocks, burns, and electrocutions. However, this risk is most common for installers.

**PAINS** 



# GAINS

Electric vehicles are more efficient, and that combined with the electricity cost means that charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements.



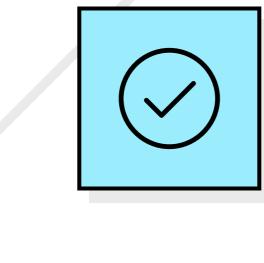
# What do they SEE?

1.The global EV charging station market was valued at \$11.9 billion in 2022 and is expected to reach \$76.9 billion by 2027.
2.EV battery production can adversely impact the environment, such as a loss of biodiversity, air population and decreased freshwater supply.
3.Increased electricity consumption was concentrated between the hours of 10 pm and 6 am, suggesting drivers charge their EVs when they come home and leave them plugged in overnight.



# What do they SAY?

An EV is a shortened acronym for an electric vehicle. EVs are vehicles they are either partially or fully powered on electric power.



# What do they DO?

Billion by 2030.

1.Most EV models entering the market today can charge using the CCS connector.2.According to a recent report by grand view research, the EV charging solution market is expected to reach \$217.06







