Empathy Map Canvas

Ideation Phase

Empathize & Discover

Date: 25 June 2025

Team ID: : LTVIP2025TMID34101

Project Name: Clean Tech

Maximum Marks: 4 Marks

Empathy Map Canvas

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user’s behaviours and attitudes. It is a useful tool to help teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user’s perspective along with their goals and challenges.

Empathy Map for Clean Tech Waste Classification System

1. Says

* “Sorting waste manually is exhausting and error-prone.”
* “We need a more accurate and faster way to identify recyclable materials.”
* “Segregation at source is nearly impossible without automation.”

2. Thinks

* Wonders whether AI can really be trusted for such a critical process.
* Thinks about how automation could improve operational efficiency.
* Concerned about sustainability and compliance with regulations.

3. Does

* Manually sorts recyclable and non-recyclable items in recycling centers.
* Collects and monitors waste bins in smart city environments.
* Oversees industrial waste handling procedures in factories.

4. Feels

* Frustrated with the inefficiency and time-consumption of current methods.
* Stressed about meeting regulatory compliance and waste management goals.
* Hopeful about technology solving real-world problems.

User Scenarios

Scenario 1:

In recycling centers, workers manually sort large volumes of mixed waste. The CleanTech system uses cameras on conveyor belts and a deep learning model to identify and sort recyclable items, improving speed and accuracy while reducing human effort.

Scenario 2:

In smart cities, cameras in public waste bins classify the type of waste (organic, recyclable, general) as it is thrown in. This real-time classification helps maintain better segregation at the source, contributing to a cleaner and more sustainable environment.

Scenario 3:

In industrial setups, cameras monitor waste disposal areas. Using transfer learning, the system identifies and categorizes metals, plastics, and hazardous waste, ensuring correct recycling or disposal, enhancing compliance and sustainability.