Ideation Phase

Empathize & Discover

Date	21 October 2023
Team ID	NM2023TMID06560
Project Name	Drug Traceability
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 helps 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 his or her goals and challenges.

Example:

Reference: https://www.mural.co/templates/empathy-map-canvas



Says

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

Traceability is defined as the ability to access any or all information relating to the object under consideration, throughout its life cycle, by means of recorded identifications. . In this context, a traceability system requires access to information related to the drug which is the TRU in the supply chain by using different identification techniques to record its identity and distinguish it from other TRUs.

The object under consideration is referred to as Traceable Resource Unit (TRU) which is any traceable object within the supply chain. Traceability objectives are twofold; to track the history of transactions, and to track the real-time position of the TRU.

As each stakeholder records the possession of the product, an end user (patient) can verify authenticity through central data repository maintained as Global Data Synchronization Network (GDSN) by using a smartphone app

In the downstream supply chain at the warehouse, pharmacy and hospital units can scan the barcode to verify the product and its characteristics.

. Similarly, Data-Matrix tracking system [24] creates a Data-Matrix for each drug which includes the manufacturer ID, Product ID, Unique ID of the package, the authentication code, and an optional meta-data.

Does



What behavior have we observed? What can we imagine them doing?



What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?



Existing solutions within supply chain management have traditionally used barcodes and RFID tags as identification techniques. Wireless Sensor Networks (WSN) to capture data, and Electronic Product Code (EPC) to identify, capture, and share product information to facilitate tracking of goods through different stages [

. In this context, Smart-Track [23] utilizes GS1 standards barcodes containing unique serialized product identifier, Lot production and expiration dates. The information contained in the GS1 barcode is captured across various supply chain processes and used to maintain a continuous log of ownership transfers.

s. The components of a traceability system can be broadly identified by a mechanism for identifying TRUs, a mechanism for documenting the connections between TRUs, and a mechanism for recording the attributes of the TRUs

This allows the patient to verify the origin of the drug by using the attached Data-Matrix.

More recently Near Field Communication (NFC) tags have been proposed to be used to achieve visibility and authenticity across pharmaceutical supply chain fords visibility throughout different stages of pharmaceutical supply chain. Each drug is registered and authenticated by using a key value and an NFC tag is attached to it

Feels

What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?



See an example

TRADITIONAL EFFORTS FOR

TRACEABILITY

DRUG