



Designing Disembodied Conversational Agent to Communicate Empathy to Lonely Senior Citizens

Problem Statement

Senior citizens living alone have very **minimal interactions** outside homes and some of them are restricted due to mobility issues or have a reduced group of friends to interact with it. This creates **loneliness in their lives** and could affect their health in the long run. Loneliness has been identified to cause other disease such as Depression, Alzheimer's and could also worsen their current medical conditions.

Research Questions & Hypothesis

RQ1: Why are the lonely senior citizens not interacting much and isolated?

- (i) What are the accessible modes of communication available for them to communicate?
- (ii) What kind of interaction will help a lonely senior citizen with loneliness?

H1: Lonely Senior citizens that interact with someone for at least twice a week have a reduced amount of depression or loneliness.

RQ2: What are the challenges in designing a communication system that communicates care and empathy?

- (i) How are conversational agents commonly used right now in the industry?
- (ii) What is the current communication style and system that a conversational agent adopts?

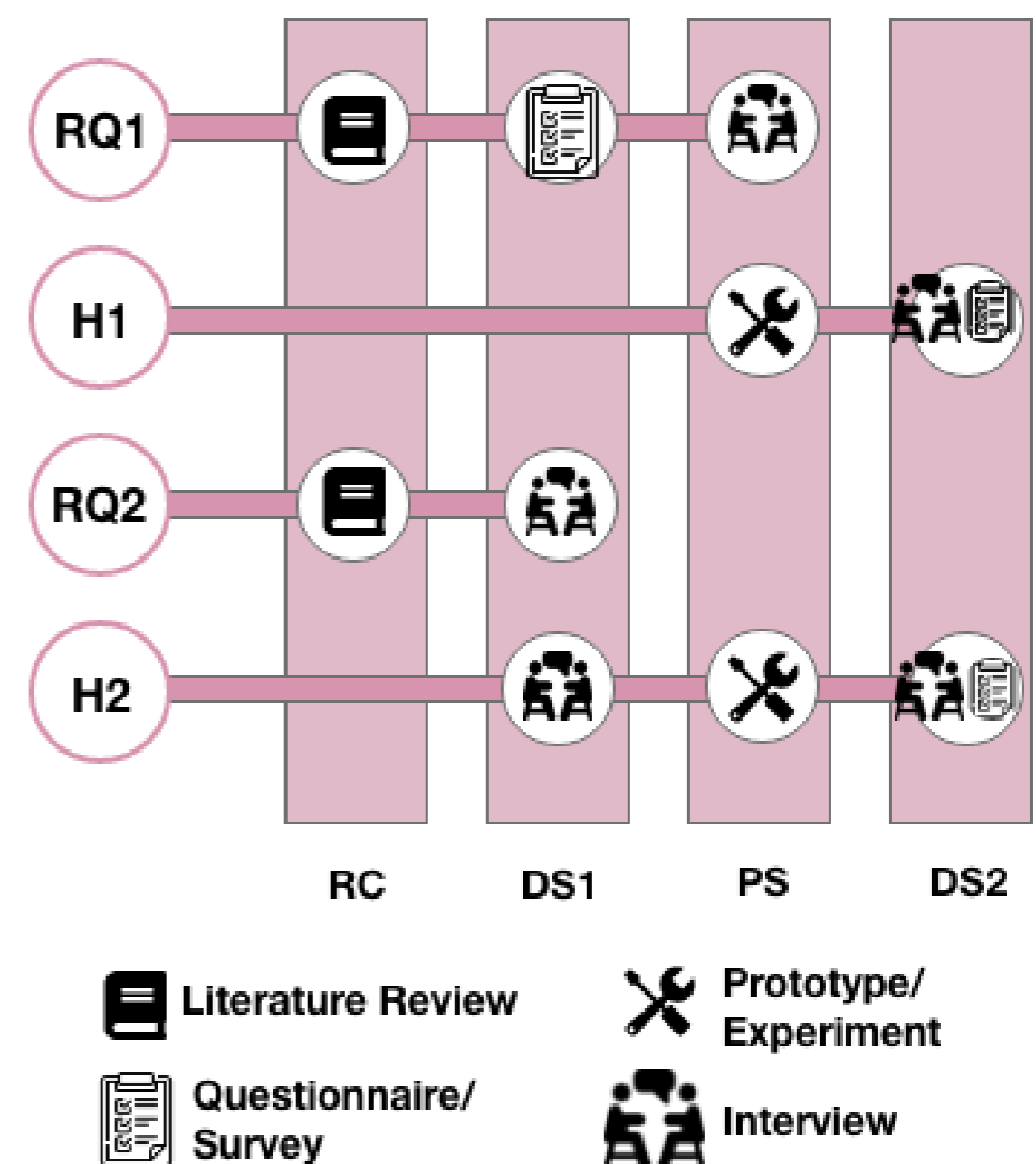
H2: A simple and easy-to-use communication system allow Senior Citizens to use the product with little effort.

Research Aim & Goal

The **Aim** is to help senior citizens reduce the amount of isolation that comes with living alone and help them to interact more to avoid health issues that comes along with loneliness.

The **Goal** is to develop a chatbot that allows Senior citizens to communicate with them instantly using their smartphone. The chatbot should communicate care and empathy to make them feel cared and happy.

Research Approach



Expected Contribution

Academic

The Research is expected to enhance the understanding in designing a conversation agent to communicate empathy. As most conversational agents are still in the stage where the responses are robotic and scripted, the research will provide a better understanding and method towards designing a better conversational agent to communicate empathy.

Industry

Successful Implementation of the conversational agent will provide an avenue for lonely senior citizen to interact. Community organization can only make use of product to keep regular check on senior citizens living alone without constraining too much manpower for home visits.