

Patient Centric Question Answering

SwEng Industry Projects @ Trinity College Dublin -
IBM Research Europe



Agenda

- Introduction
- Background
- Project Description
- Requirements
- Q&A

Digital Healthcare

- The term “Digital Healthcare” broadly identifies all the processes that help the digital transformation of healthcare like the adoption of wearable sensors, Electronic Health Records (EHR), telemedicine etc.
- IBM Research is working with partners to find solutions to important health care problems in multiple ways, starting with decreasing the time it takes to discover new drugs and treatment approaches.

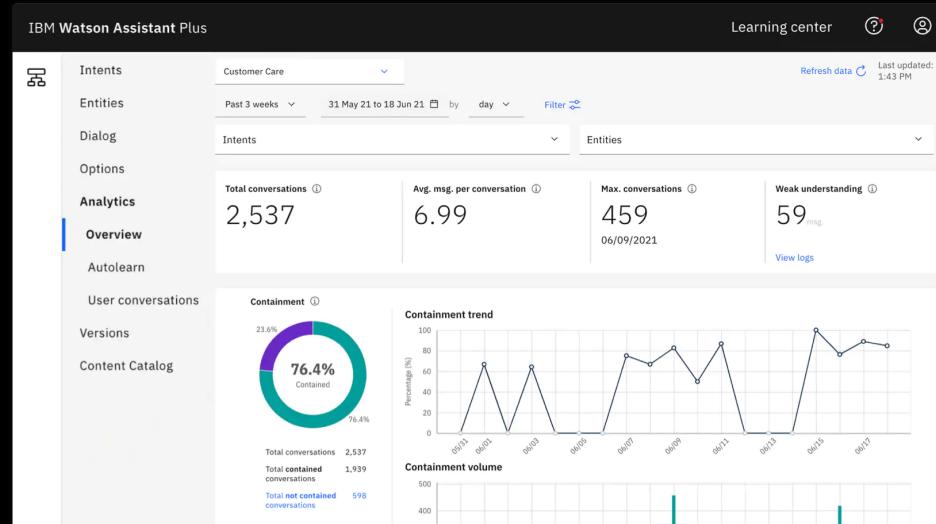


Clinical Trials Enhancement

- The success of **clinical trials** is affected by **inefficiencies** across the different trial phases, with downstream impacts on **participant recruitment, engagement** and **retention**, and adequate representation of diverse study populations.
- To understand the characteristics of the patients involved in a clinical trial we need to develop tools to explore the data that are **easy to use** and provide a **human-readable summary** of it.

General Project Goals

- Develop a dashboard that summarises the characteristics of a population through charts.
- Users should be able to interact with the system through natural language.
- The dashboard should provide responses (in the form of charts and tables) in real time and allow the user to generate a report of the extracted information.



Requirements

- The dashboard should support different types of visualisation including (but not limited to) bar charts, pie charts, line charts and tables
- The system should be composed by separate frontend and backend executables
 - The frontend should include all functions related to the user interface/plotting/visualization
 - The backend should include all functions related to the interpretation of user input and data management (querying and storage)
- The application frontend and backend should be running in two different docker containers and should support multiple concurrent requests from different users
- Users should be able to download the results produced by the system in some human-readable format

Q&A