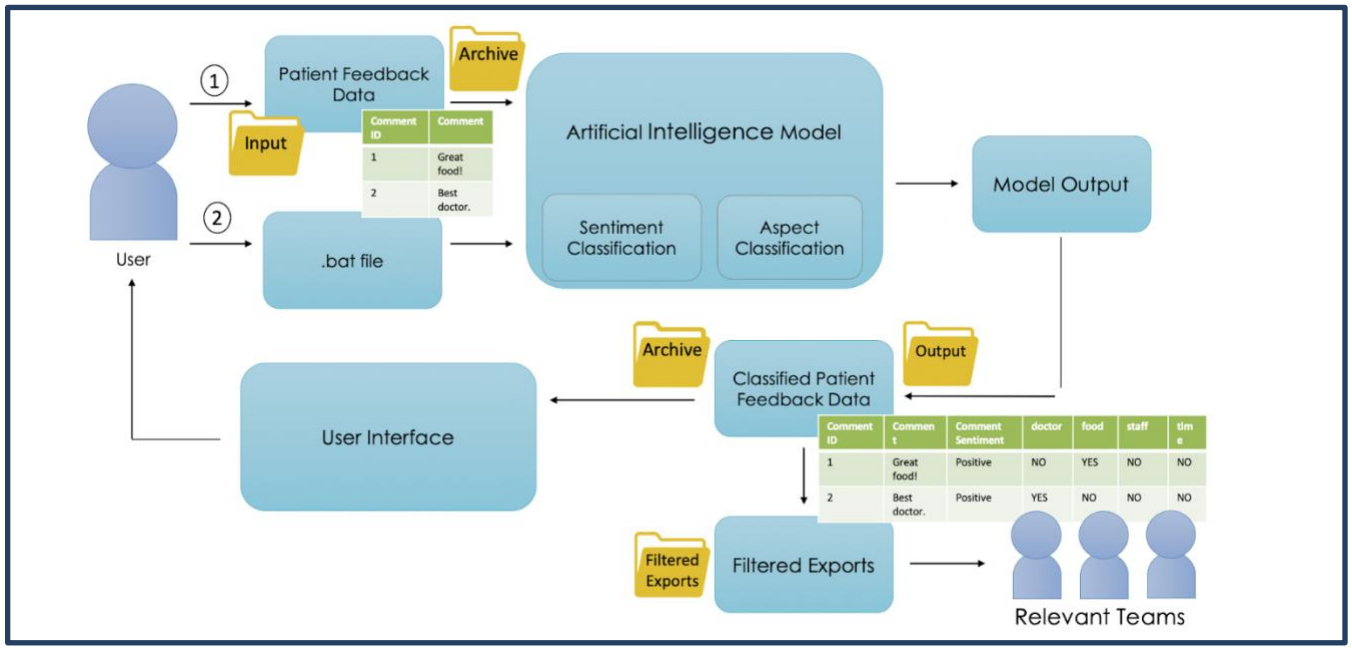

Classifying North York General Hospital Patient Feedback Data

Client: Parisa Sadeghi, North York General Hospital (NYGH)

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Classifying patient feedback data to improve customer experience at North York General Hospital

NYGH collects patient discharge surveys which include free-form text comments and seek a solution that classifies the sentiment and hospital aspect of these comments to target improvement efforts and identify areas of success within the hospital. Currently, the problem is that there is too much data to manually analyze, therefore the team's objective is to create an automated comment classification system. The impact of this project is improving the quality of service at NYGH by applying artificial intelligence (AI) models that can assist in the measurement of customer experience metrics. This solution could benefit members of the North York community by improving their hospital experience based on patient feedback. The AI model is also widely applicable to any service industry and could be used throughout the hospital on other feedback data.

End to end sentiment and aspect classification and user interface solution to evaluate performance at North York General Hospital

The design solution is a system which takes new patient comments as inputs and accurately classifies their sentiment (positive, negative, neutral) and aspect (food, time, doctor, staff); these classifications are used as a data source for a visual dashboard. The design uses an innovative approach to sentiment analysis by creating a custom dictionary that provides an additional layer of information on the aspect classification of the comment. Without the need for technical background knowledge, the client can update the dictionary as new aspects (e.g. cleanliness) need to be analyzed. The overall results can be easily filtered in the dashboard, allowing users to quickly analyze trends in patient feedback data and see key performance indicators (KPI). The design uses an automated file archiving structure, enabling the user to visualize current and historical quality trends in the data. This design solution provides high classification accuracy using AI models and a user-friendly interface. The dashboard and filtered exports allow for sharing of classified comments to relevant teams to target improvements and identify successes.