Understanding emergent themes in times of COVID19

what natural language processing and machine learning can unravel

Covid19 and its issues

- Pandemic
- Caregiving shifted online overnight
- Telemedicine delivery has unintended consequences
- What adjustments clinicians have made needs documentation

Research Design

- Question: How are clinicians adjusting to the new practice of telehealth/telemedicine and what adjustments have they made?

- Design
  - Identify clinicians through snowball sampling
  - Draft a common set of questions on their practice
  - Train interviewers to interview the clinicians and record responses
  - Transcribe the responses from audio to text format (HEC required this)
  - Analyse the transcribed text for patterns and contents

Machine learning approaches to content analysis

- Machine learning:
  - Data ingestion
  - Data Preprocessing (tidying data)
  - Data visualisation
  - Modelling
  - Clustering
  - Classification
- What would machine learning on text data reveal?
  - What patterns?
  - What themes will it generate?

Let's move to Jupyter Notebook to see the processes first hand

https://jupyterhub.canterbury.ac.nz/teaching/user/arinbasu/lab