Exploring Medical Practitioners Experiences with Electronic Health Data: a Sensemaking Perspective

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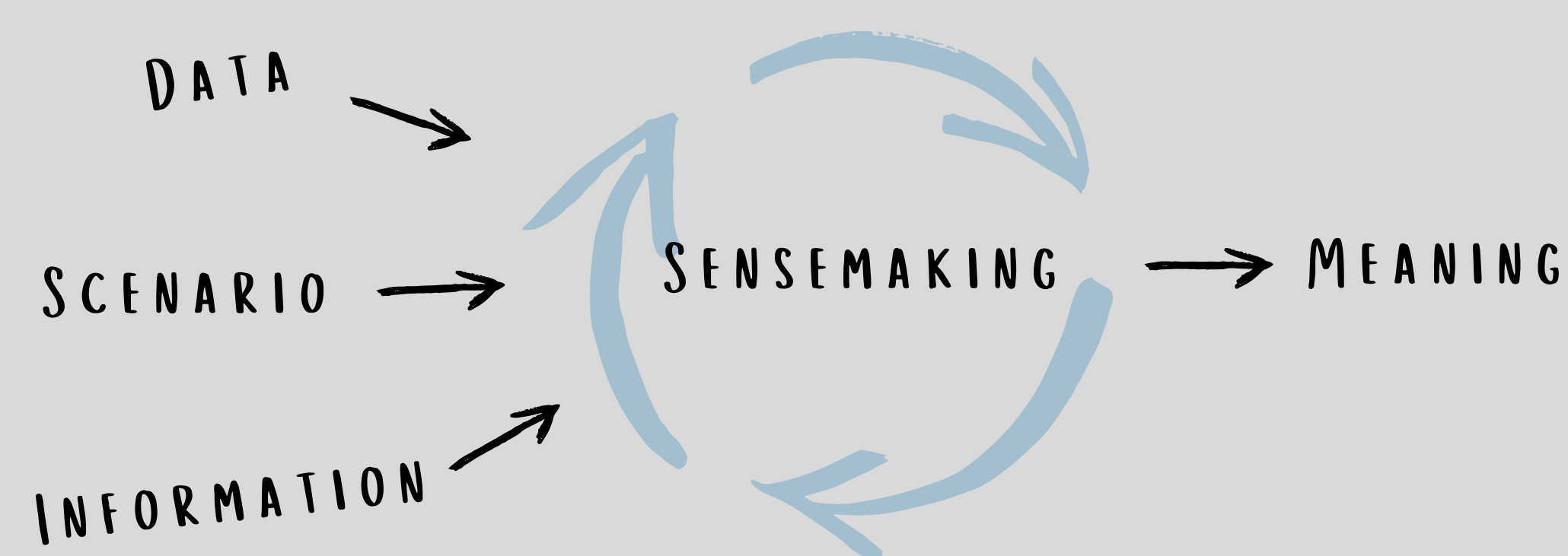PhD Candidate, Monash University

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Introduction

Presenting practitioners with data on their clinical performance offers a unique opportunity to reflect on their performance. Research must explore the process that individuals go through when presented with such data to ensure that it generates a positive change in practice. As such, the project will explore the sensemaking process that is enacted when practitioners engage with data. The insights gained from this research will ensure that the data is consistently well received, makes sense, and promotes a positive change in practice.

Theory: What is Sensemaking?

Sensemaking is the process of "making sense" of a situation, data, or information (Maitlis & Christianson, 2014).

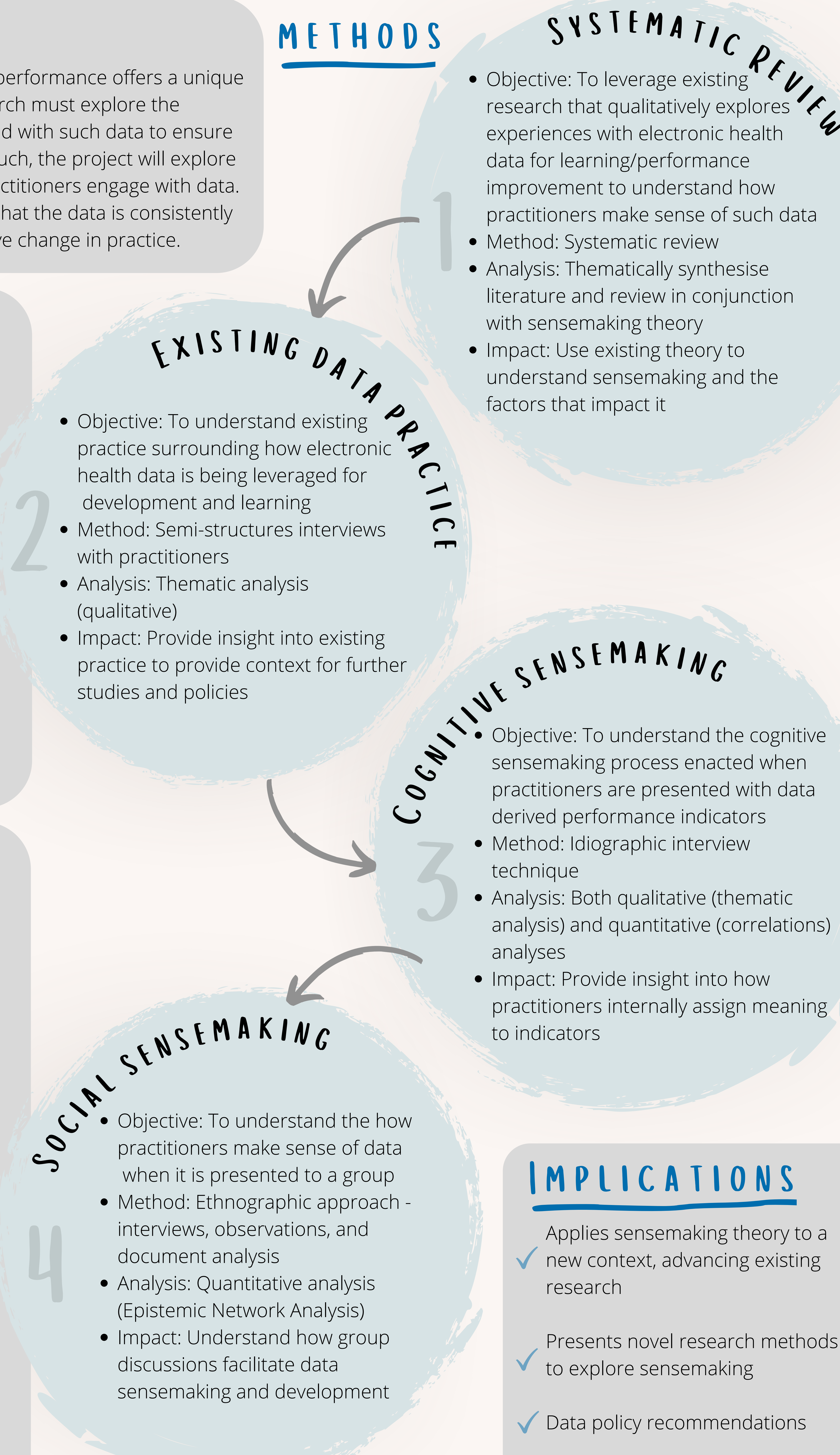

Data →
Scenario → Sensemaking → Meaning
Information →

It is the external process of assigning meaning to an external stimuli. Many factors impact how individuals *make sense* of scenarios, including previous experiences, emotion, and context (Sandberg & Tsoukas, 2020)

Research aims

1. Assess how existing literature provides insights into how practitioners make sense of electronic health data associated with their clinical performance

2. Understand how electronic health data is currently being used within healthcare to support learning and development

3. Explore both the cognitive and social sensemaking processes when data is presented

4. Understand factors that impact sensemaking

5. Understand how sensemaking impacts further action, more specifically how reflecting on this practice data and making sense of this generates actionable insights

Methods

Systematic Review

1.
- Objective: To leverage existing research that qualitatively explores experiences with electronic health data for learning/performance improvement to understand how practitioners make sense of such data
- Method: Systematic review
- Analysis: Thematically synthesise literature and review in conjunction with sensemaking theory
- Impact: Use existing theory to understand sensemaking and the factors that impact it

Existing data practice

2.
- Objective: To understand existing practice surrounding how electronic health data is being leveraged for development and learning
- Method: Semi-structures interviews with practitioners
- Analysis: Thematic analysis (qualitative)
- Impact: Provide insight into existing practice to provide context for further studies and policies

Cognitive Sensemaking

3.
- Objective: To understand the cognitive sensemaking process enacted when practitioners are presented with data derived performance indicators
- Method: Idiographic interview technique
- Analysis: Both qualitative (thematic analysis) and quantitative (correlations) analyses
- Impact: Provide insight into how practitioners internally assign meaning to indicators

Social Sensemaking

4.
- Objective: To understand the how practitioners make sense of data when it is presented to a group
- Method: Ethnographic approach - interviews, observations, and document analysis
- Analysis: Quantitative analysis (Epistemic Network Analysis)
- Impact: Understand how group discussions facilitate data sensemaking and development

Implications

✓ Applies sensemaking theory to a new context, advancing existing research

✓ Presents novel research methods to explore sensemaking

✓ Data policy recommendations

References

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