

Best Practices for the use of AI within Public Service Settings

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Project Overview

- Project’s focus aimed to incite early discussion and assessment of what the important considerations are for AI technology adoption within the public service setting, particularly at the municipal government level.
- The research analysis aimed to answer 5 specific main research questions, which required a comprehensive literature review, comprised of both academic and grey resources.
- A list of recommended best practices for responsible and ethical AI technology adoption was developed. Thoughtful consideration into the deployment of recommended best practices, in combination with the appropriate stipulations, will ensure responsible and ethical adoption of AI technology into government services at the municipal government level.
- Utilizing innovation AI-powered solutions, in tandem with a responsible and ethical AI adoption strategy, will increase the likelihood of efficient and effective problem solving techniques and purposeful solutions designed to respond to the needs and issues inherent to the City of Lethbridge.

5 Main Research Questions

1. What are the different categories of AI technology?
2. How might the different categories of AI connect/interface with the various business functions of the City of Lethbridge?
3. How are other local governments (or similar) already using AI technology? (With a particular focus on generative AI, i.e., ChatGPT).
4. What does the emerging literature (academic and industry) say about the use of AI technology within local government (or similar) settings? (I.e., impacts, benefits, ethics).
5. Are there any published guidelines from local governments (or similar) for the use of AI? If so, what are the common themes?

Methodology

- The methodology for the thematic analysis was developed using a consolidated approach to establish reliable data analysis and evaluation of guidelines/policies.
- The development of codes/themes observed within the data set were generated using a deductive coding format, meaning that specific codes were highlighted using a pre-defined coding structure.
- 10 different government guideline and policy reports were examined for key analysis, evaluation, and critical assessment of common themes identified in the thematic analysis.
- In a separate section of the report, 10 additional industry reports were analyzed to identify key factors to effectively regulating AI technology adoption

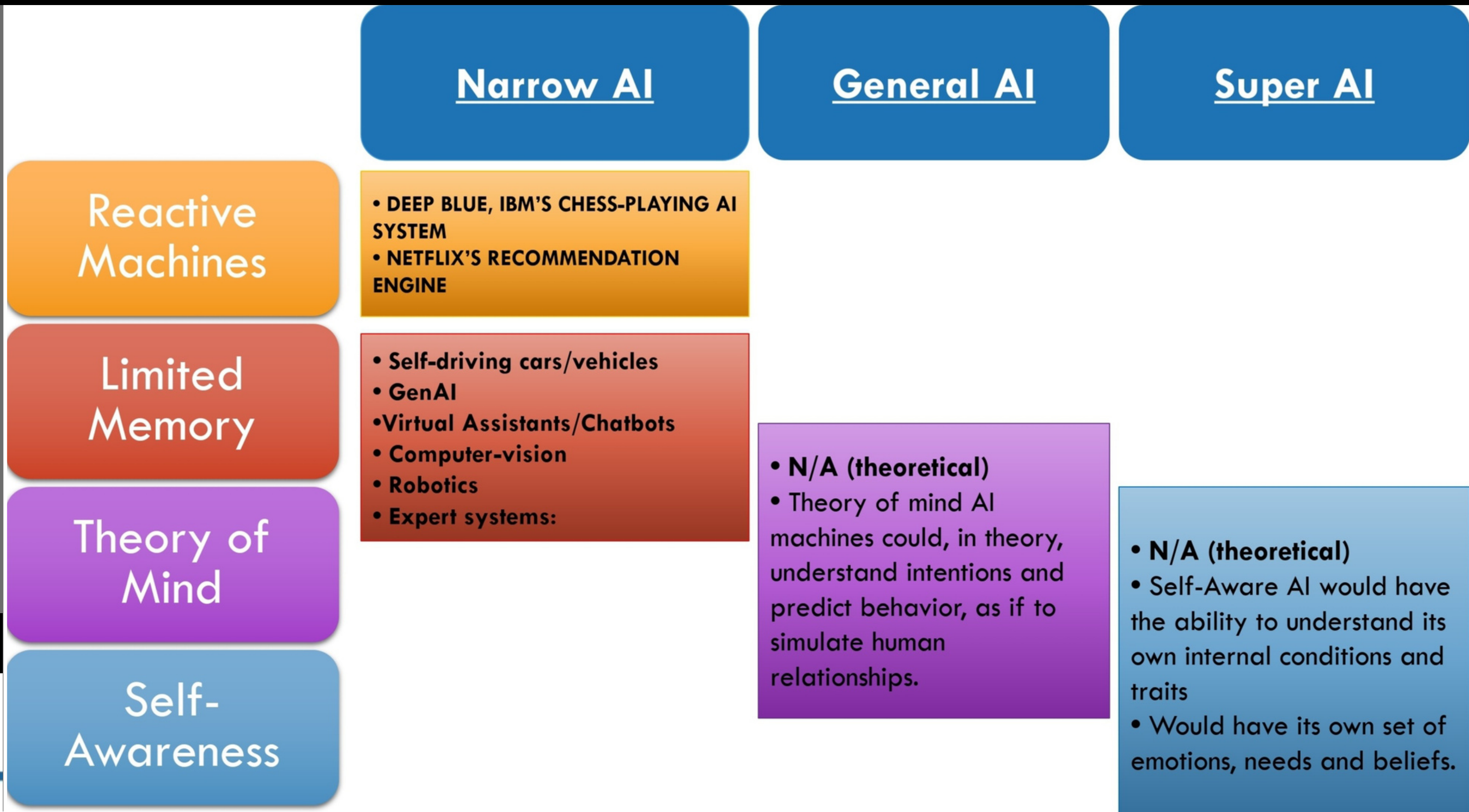
Figure 1.1 Thematic Analysis Coding Framework

| MGT - 4980 THEMATIC ANALYSIS: Coding Framework | | | | | | | | |
|---|-------------------------------|---|-------------|-----------------|---------------|-----------|----------------|----------------|
| Collection No. | Pre-defined codes/themes | | | | | | | |
| | Total # of Themes Identified: | Provisions enabling successful AI technology adoption in government | | | | | | Total mentions |
| | | Flexibility | Scalability | Transferability | Accessibility | Proactive | EDI Components | |
| #1 | 12 | 5 | 2 | 1 | 2 | 1 | 1 | 0 |
| #2 | 35 | 0 | 1 | 1 | 10 | 3 | 11 | 9 |
| #3 | 27 | 2 | 2 | 3 | 9 | 2 | 0 | 9 |
| #4 | 22 | 6 | 1 | 2 | 4 | 7 | 1 | 1 |
| #5 | 82 | 1 | 0 | 2 | 19 | 1 | 0 | 59 |
| #6 | 30 | 1 | 1 | 1 | 11 | 1 | 7 | 8 |
| #7 | 45 | 2 | 1 | 2 | 20 | 2 | 3 | 15 |
| #8 | 30 | 3 | 0 | 1 | 10 | 5 | 2 | 9 |
| #9 | 25 | 2 | 0 | 1 | 0 | 1 | 0 | 21 |
| #10 | 69 | 3 | 3 | 5 | 12 | 2 | 2 | 42 |
| Average Totals | | 3 | 1 | 2 | 10 | 3 | 3 | 17 |

Report Findings

- While Canada is considered to be a the forefront of driving responsible and ethical adoption of AI technology, a large gap still exists in government, particularly at the municipal and provincial level, on the topic of establishing effective guidelines that address feasibility and strategic foresight provisions to enable successful AI technology adoption within government.
- A consolidated approach, one that considers a mix of government/industry guidelines, will lead to an effective approach which develops a comprehensive list of guidelines/recommendations to best serve the general public.
- Deployment of recommended best practices, in combination with the appropriate stipulations, will ensure responsible and ethical adoption of AI technology into government services at the municipal government level

Figure 1.2 AI Classification Matrix Model



Conclusions

Best practices for responsible and ethical AI technology adoption

- Ensure that development and use of AI-powered tools are designed using a human-centered approach. This would require human engagement at every level where AI technology is implemented.
- Implement a robust governance and ethics framework for AI technology use.
- Devise and routinely evaluate AI technology strategic planning needs that support the adoption of AI tool. How they are designed, developed, deployed, and regularly enhanced needs to be incorporated into the long-term strategic plans of agencies

Stipulations to support successful AI technology adoption

- Need to modernize data governance policies/practices.
- Government agencies need to modernize human resource practices, which will require AI job training practices.
- To mitigate cybersecurity risks, government agencies need to bolster their cybersecurity capabilities.
- Strong consideration must be given towards value citizen engagement practices.
- Government agencies must maintain values of transparency and fairness for AI algorithms that must open for audits