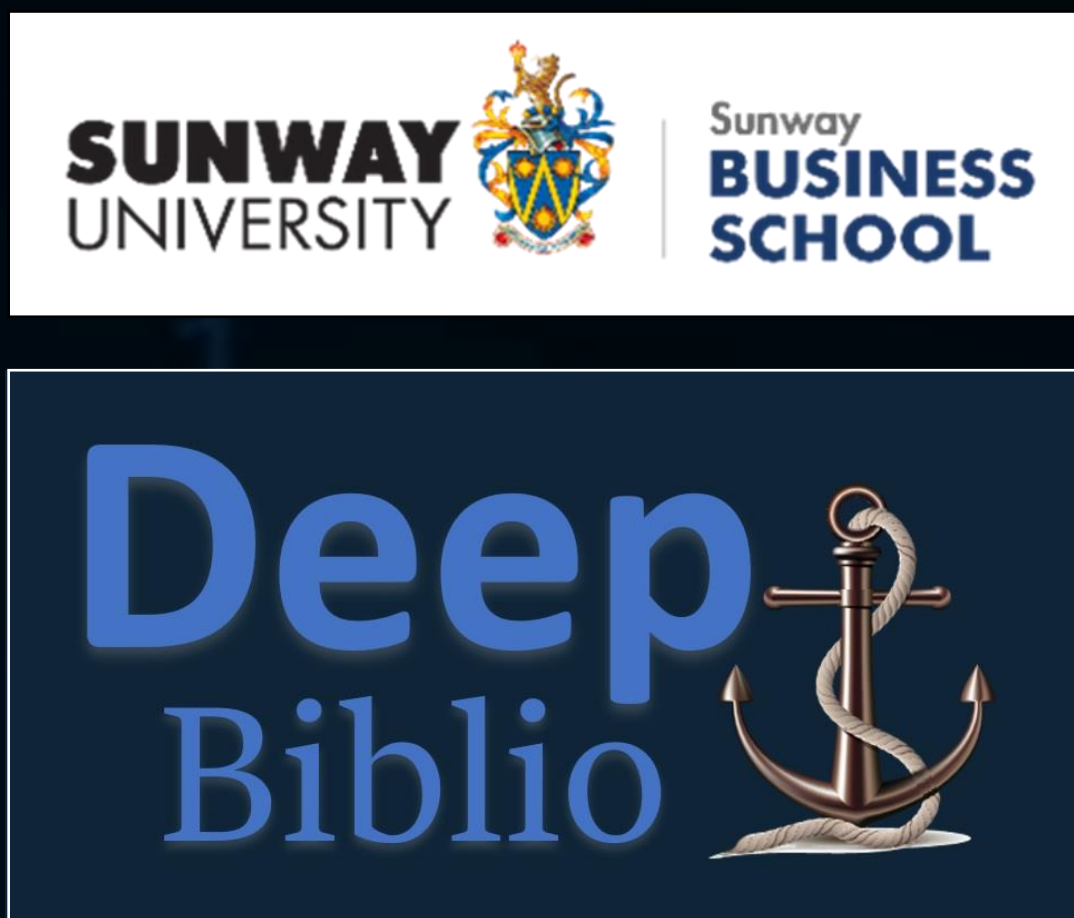


# Generative AI in Bibliometric Analysis: From Business Research Context



Prepared by: Foo Jinny (17041468)  
Ku Li Min (16023509)

Supervised by: Dr. Tang Tiong Yew

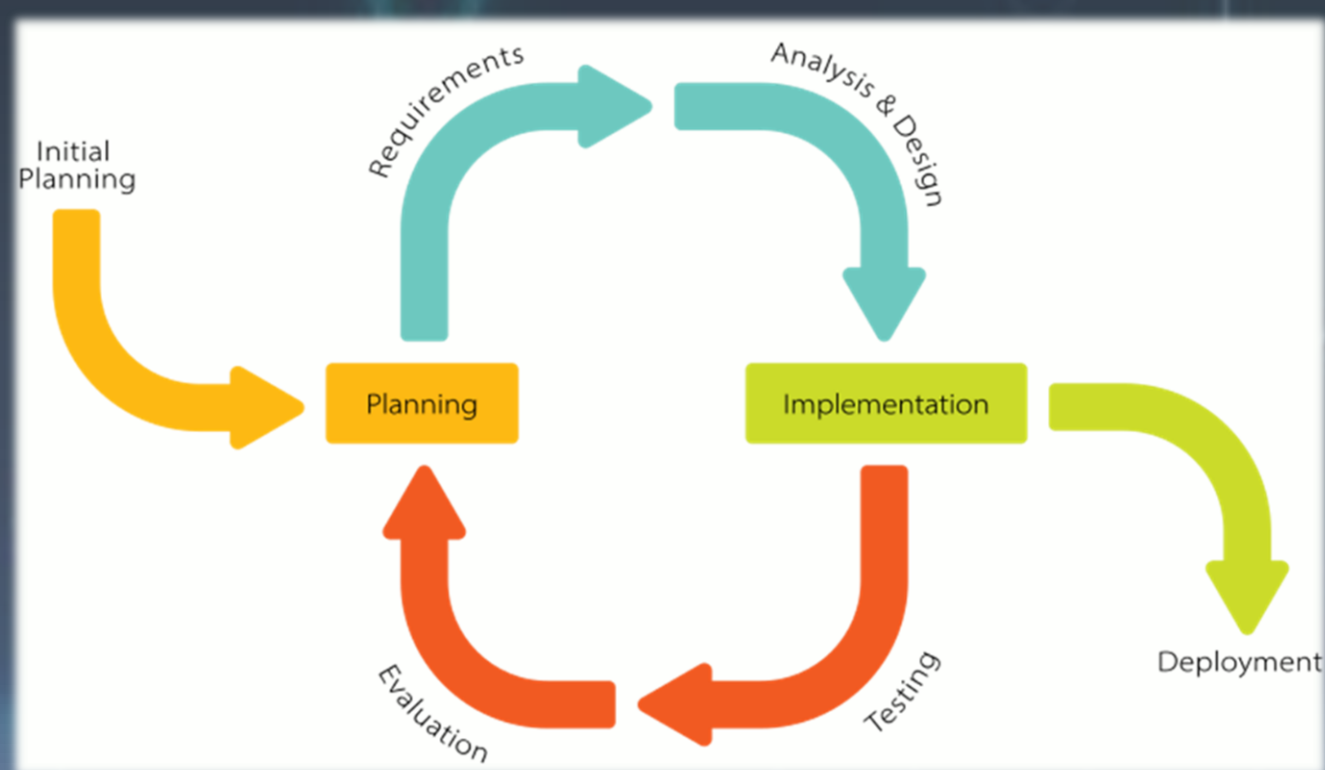
## Problem Statement

- Existing bibliometric analysis tools lack the automated capabilities to produce comprehensive descriptive analysis for describing bibliometric data.
- Gap exists between human interpretation and data reality.

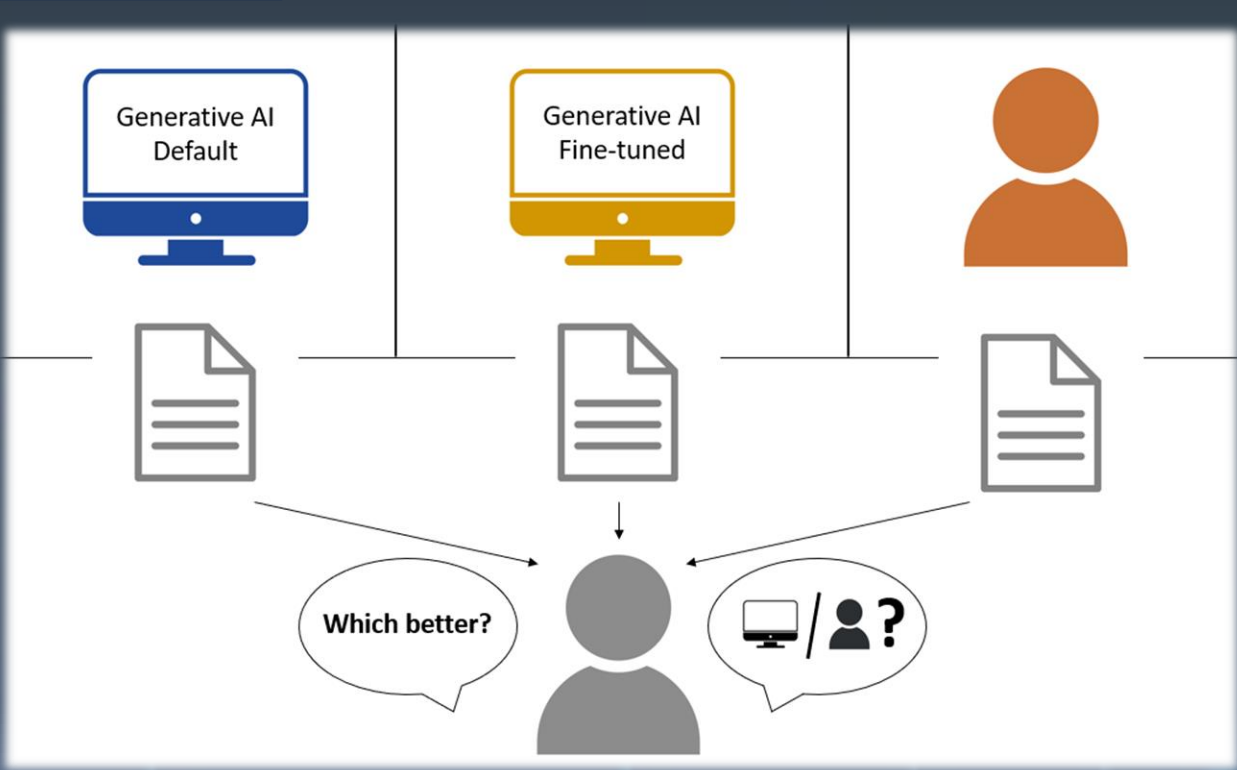
## Objectives

- To investigate the performances between default Generative AI, fine-tuned Generative AI, and human-written entity from 3 aspects:
- General
  - Statistical
  - Business domain

## Methodology & Tools



## Validation



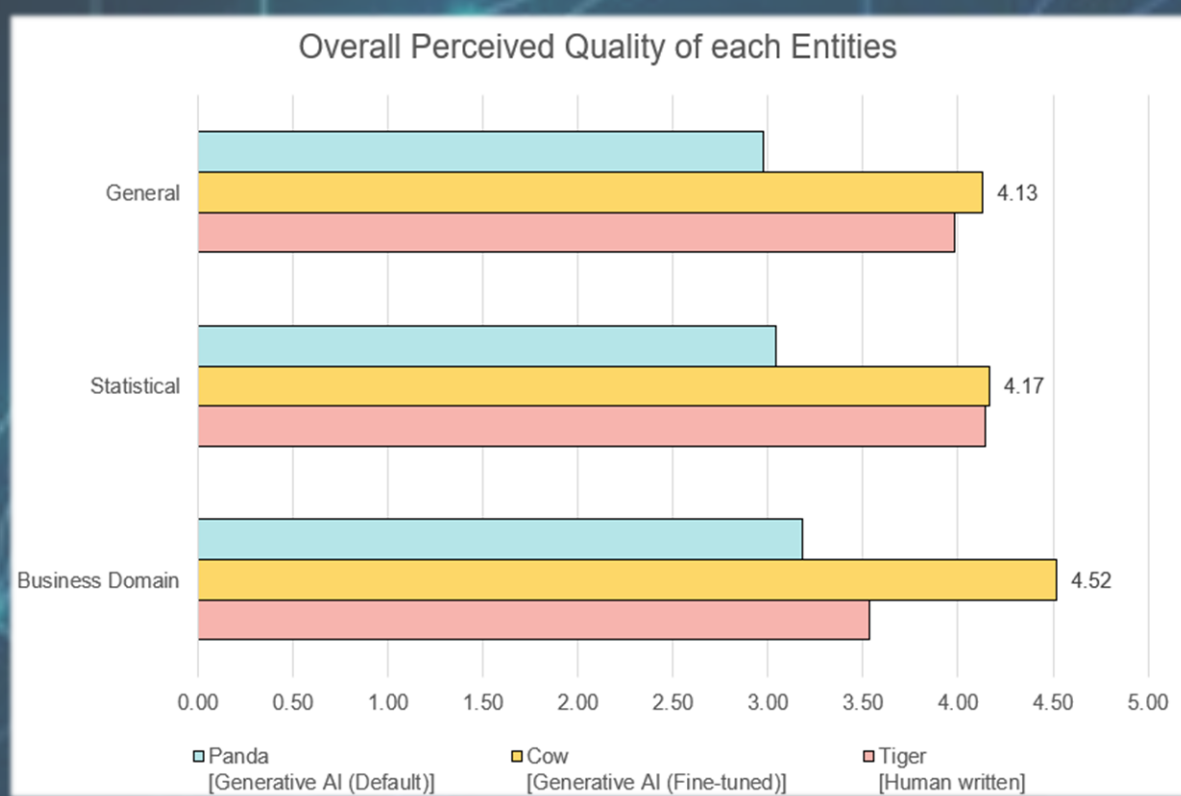
USE Questionnaire Google Forms

## Results

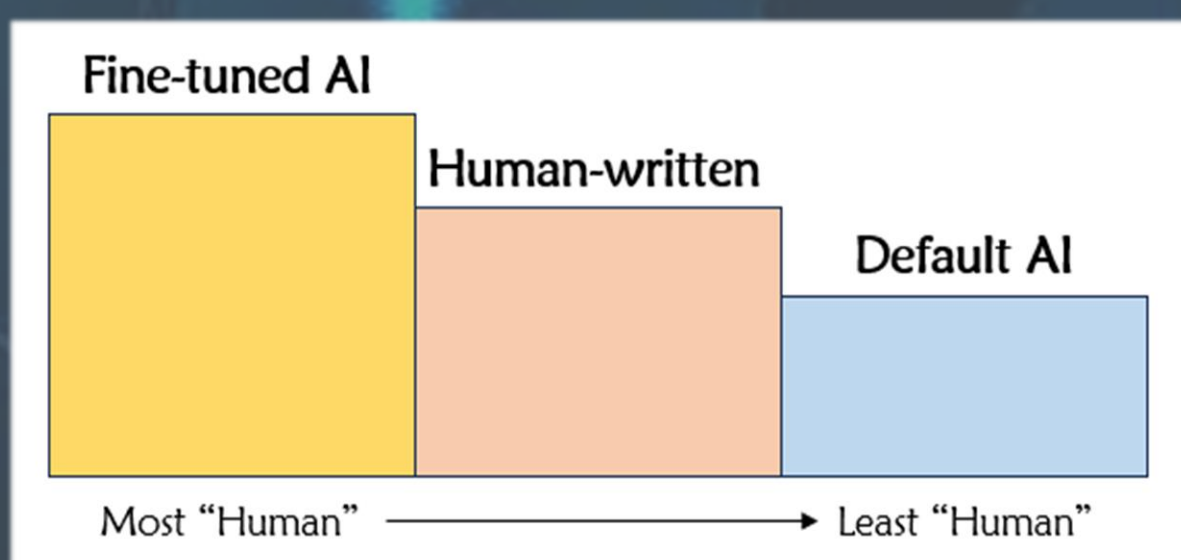
### Fine-tuned Generative AI



✓ Fine-tuned Generative AI achieved the overall best performance.



✓ Fine-tuned Generative AI is the most human-like.



## Conclusion

- Fine-tuned Generative AI > Human > Default Generative AI
- Fine-tuned Generative AI PASSED the Turing Test.
- Generative AI performs better than human **AFTER** fine-tuning.
- DeepBiblio makes bibliometric analysis:
  - ✓ High efficiency
  - ✓ Consistent
  - ✓ Better quality as compared to humans.
- Limitations & Future Works:
  - Limited bibliometric data & visualizations involved.
    - ✓ Covers more bibliometric data (author, h-index, etc.).
    - ✓ Involves more visualizations (word cloud, etc.).
  - Limited domain perspectives.
    - ✓ Explore more domains (medical, finance, etc.).
  - High effort requirement and lengthy process to fine-tune the model.
    - ✓ Automate fine-tuning process with in-app user feedback feature.