

AI in Clinical Practice a Sociotechnologist's Perspective

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NECCE –
March 6, 2026





Learning Objectives

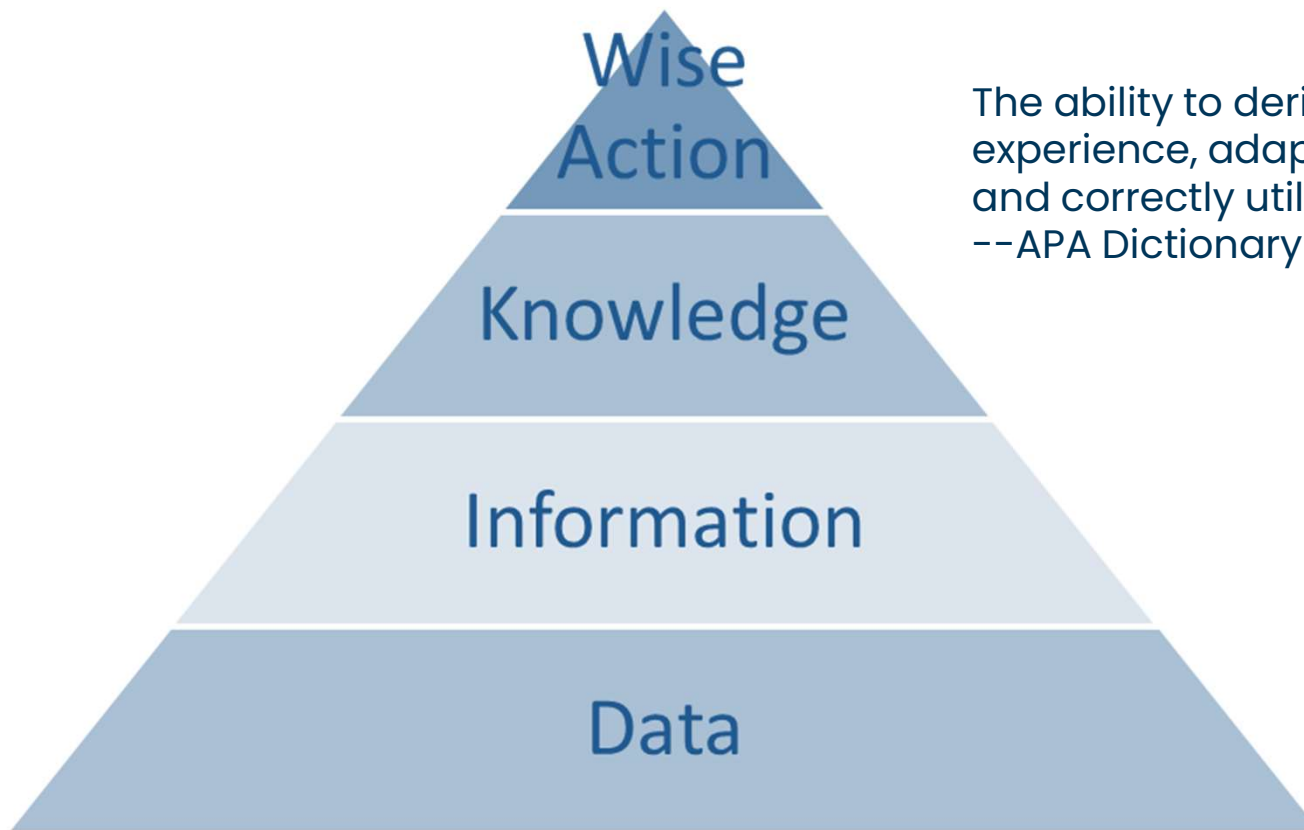
- Understand the basics of what is artificial intelligence and machine learning and how they differ
- Appreciate some of the business and clinical risks associated with the use of tech-augmented decision making
- Understand facilitators and barriers to effective use of technology in clinical practice



Basics of Technology-Augmented Decision Making



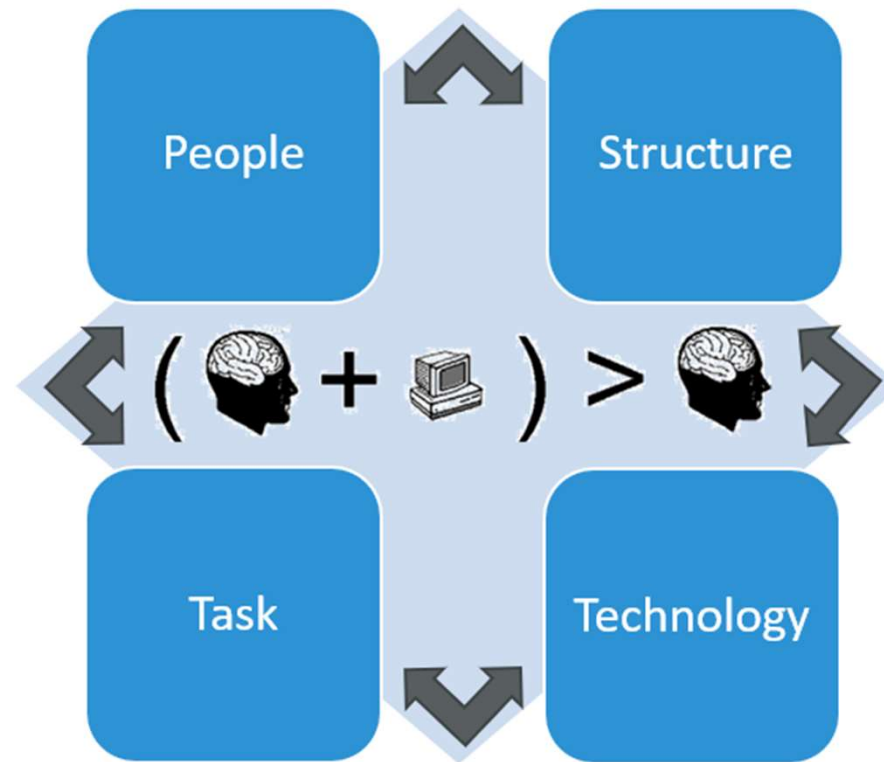
Data to Wise Action - Intelligence



The ability to derive information, learn from experience, adapt to the environment, understand, and correctly utilize thought and reason.
--APA Dictionary of Psychology



Sociotechnology and Clinical Informatics



Perception/Perspective

- **Probability**
 - Prediction
- **Reliability/Validity**
 - Learning
 - "Correct"
- **Sample/Generalizable**
 - Semantics

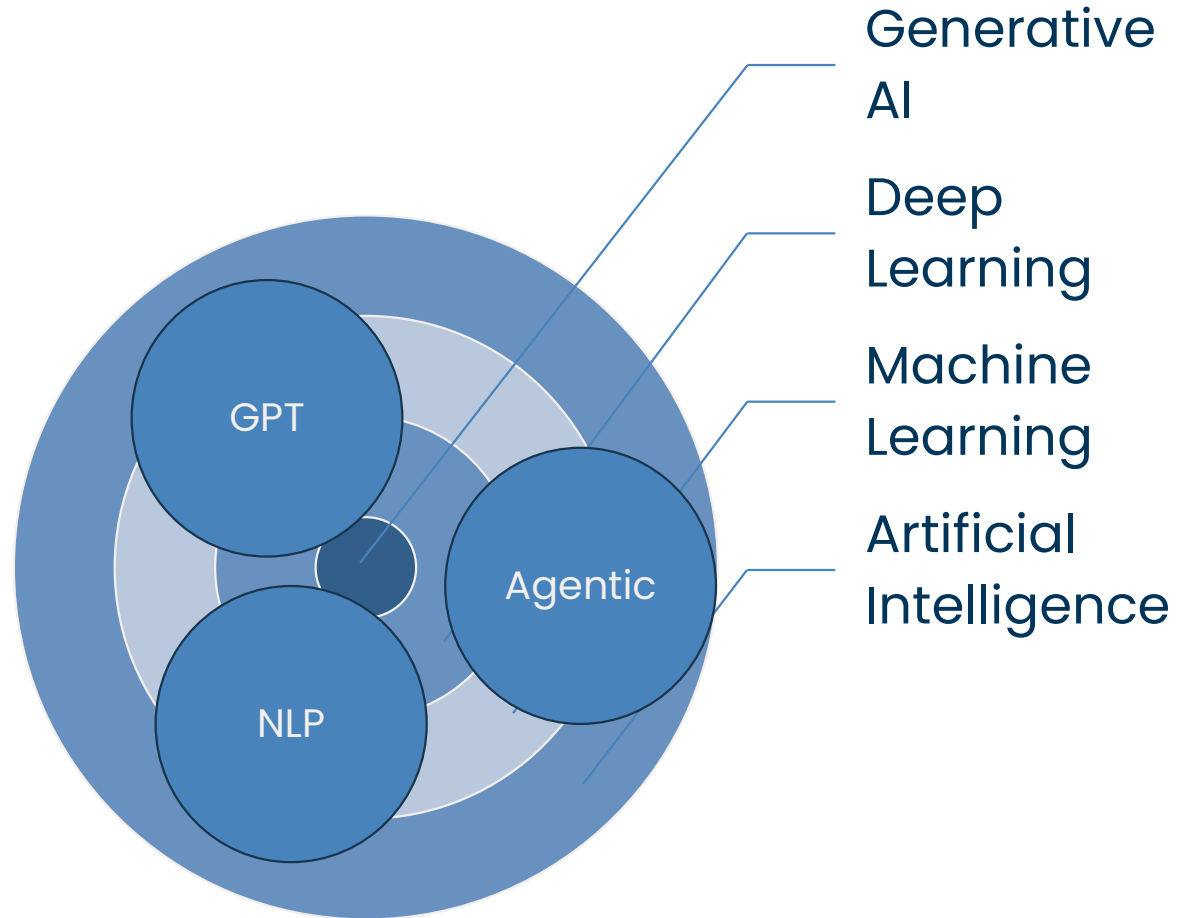


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Difference and Similarities

- Natural Language Processing (NLP)
- Generative Pretrained-Transformer (GPT)



Risks of Tech-Augmented Decision Making



Risks

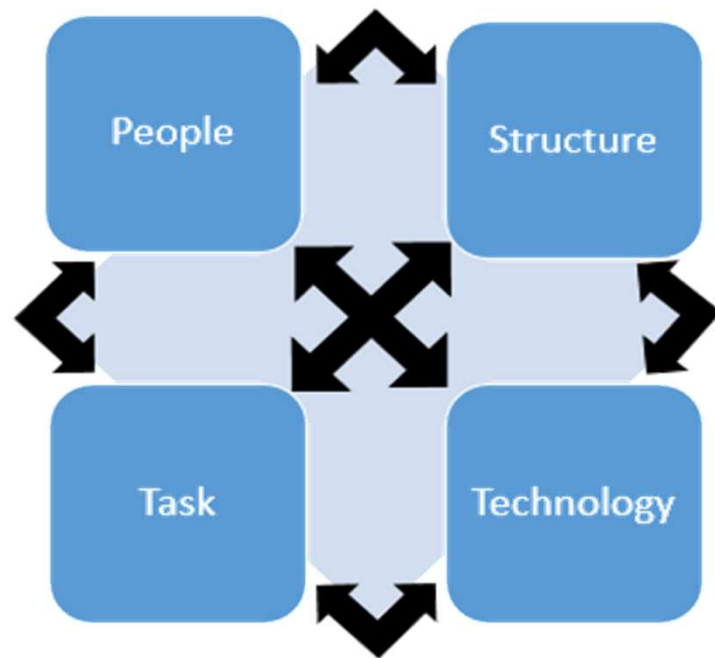
- **Un-skilling and never-skilling**
- **PHI privacy and security (HIPAA)**
 - INFORMED Consent
- **Logic errors**
 - Omission
 - Commission/Hallucinations
 - Semantic misunderstanding
- **Medicolegal discovery**
- **Note bloat and obfuscation/disorganization**
- **Lack of ROI or goal achievement**



Facilitators and Barriers to Effective Adoption of Technology in Clinical Practice



Sociotechnical Ecosystem

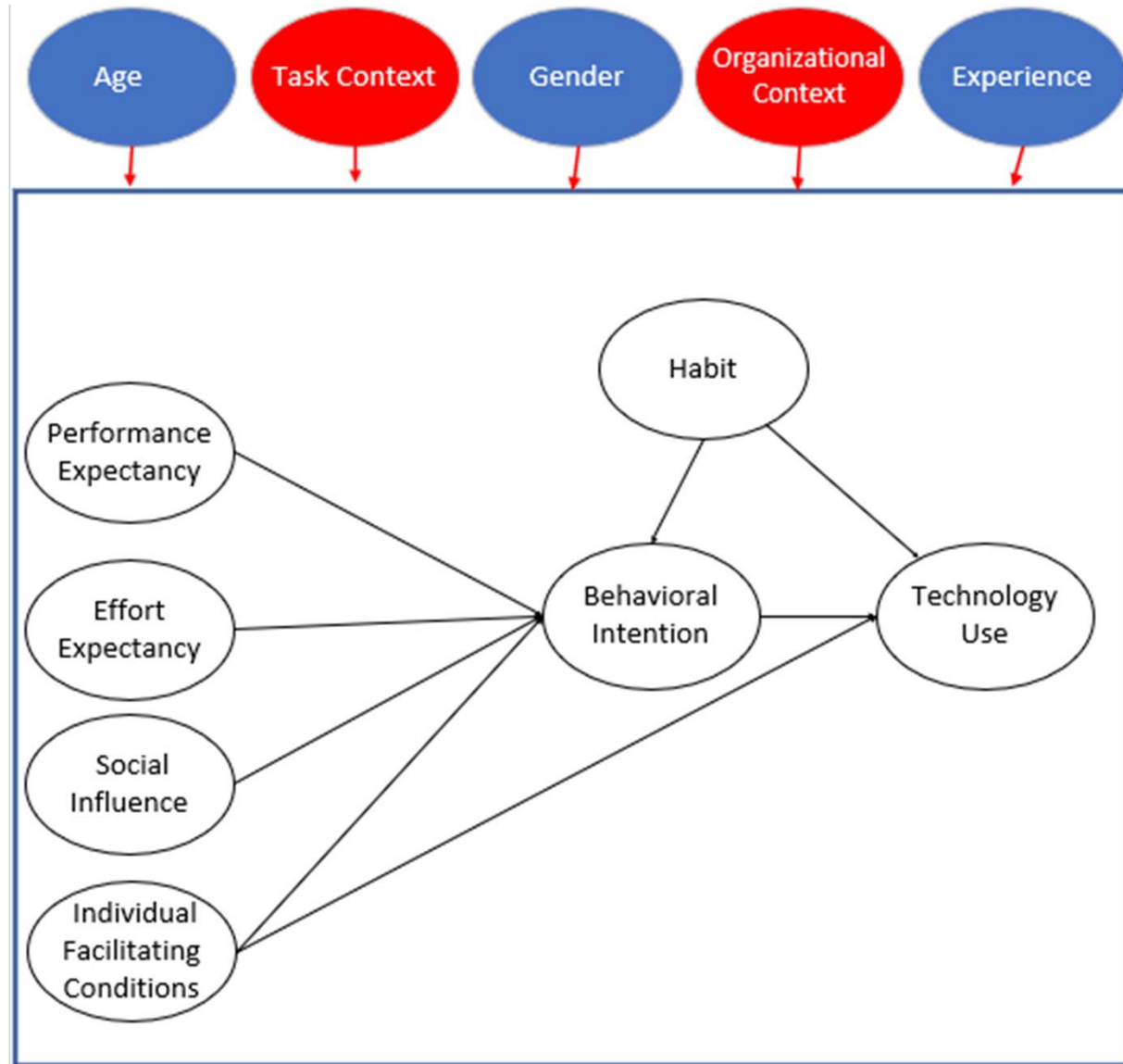


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