

AI Driven Marketing for Entrepreneurs and Enterprises

Business Goals \iff AI/ML

Vineet Kumar, Yale School of Management

Guest Lecture at Harvard Business School
January 2026

Agenda for Today's Session

- Perspective on AI / ML

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- From Business Goals to Prediction (ML) Problems

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- Driving as an ML Problem

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- Role of AI versus Humans

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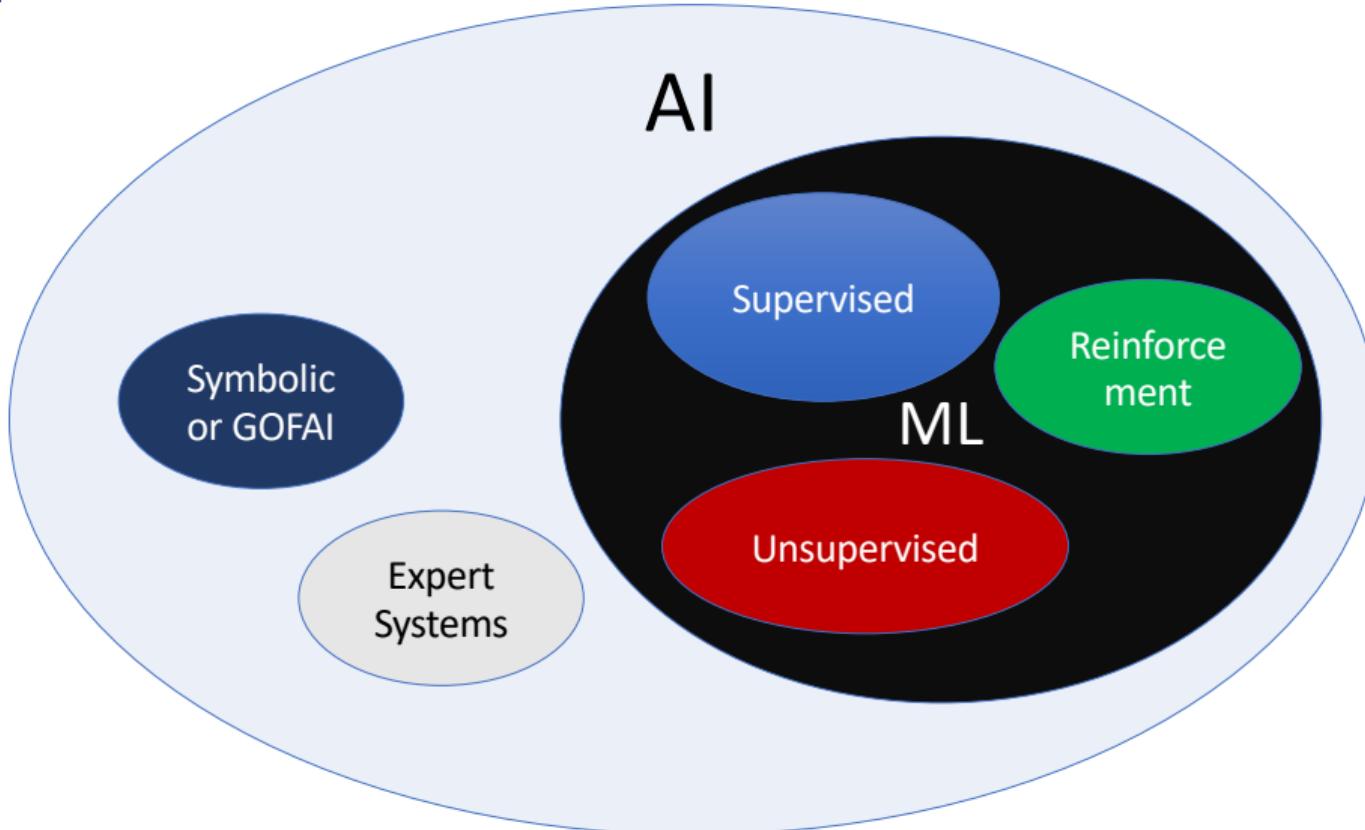
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Types of AI



Autonomous Vehicles

Early Autonomous Cars:

<https://www.youtube.com/watch?v=5ocvNxjN3dc>



Autonomous Vehicles

Three Waves

First-wave used
mechanical control
(1970s)

Mechanical Control

- Works in very limited way
- No flexibility if environment is changed even a bit

Autonomous Vehicles

Three Waves

First-wave used mechanical control (1970s)

Expert Systems
Second-wave used computer programming (1980s to early 2000s)

Mechanical Control

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If condition X, Then do Y

- Could go to 1000s or 100K lines of code
- Need to add code for each new condition and reprogram system

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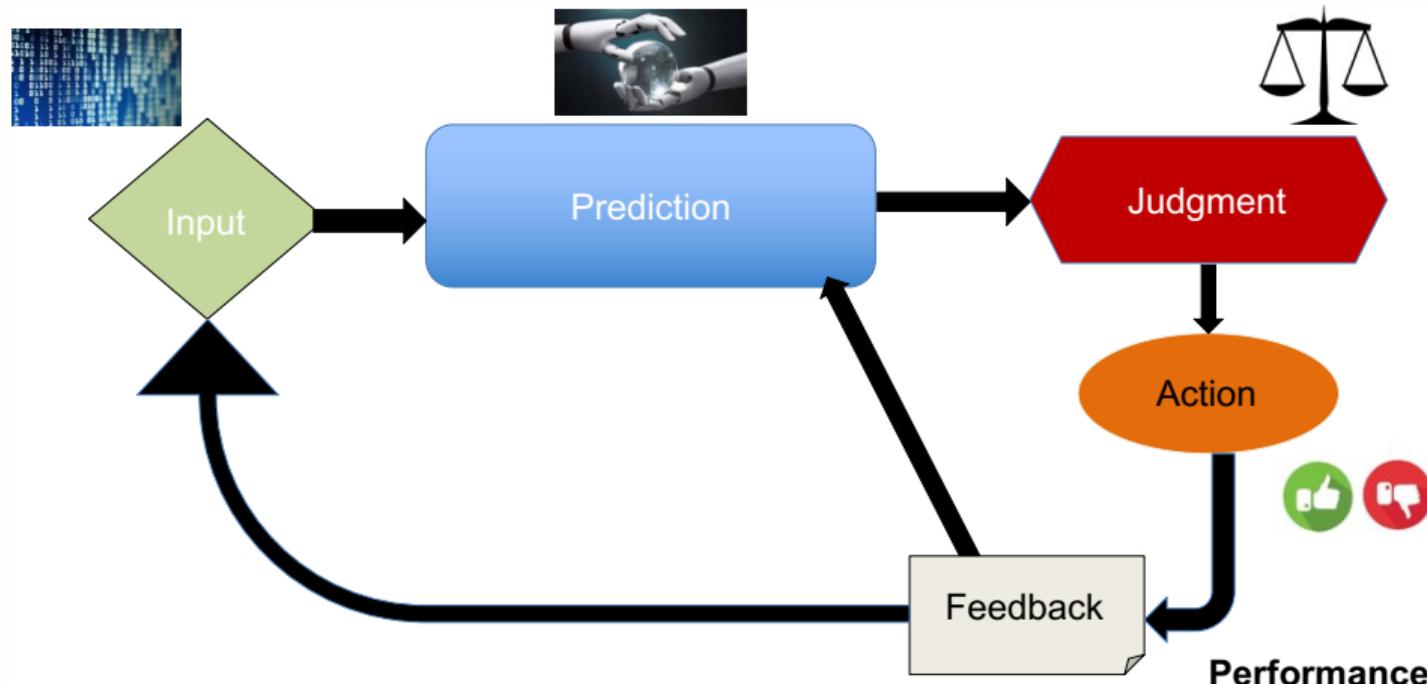
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Predictive Model

- AI system learns and builds the model and delivers better (more accurate prediction) as more data is generated

Converting to Prediction Problem (In class exercise)

AI Decision-Making Framework



Does Feedback also inform Judgment?

Autonomous Vehicles

- Consider the role of prediction in autonomous driving
- Let's walk through the AI Decision Framework

Questions:

- 0) What sources of data should the system use?
- 1) What are the possible predictive problems one might encounter?
- 2) How should we measure performance?
- 3) *What are appropriate ML algorithms in our toolbox to solve them?*
- 4) What role does judgment play in this problem?

In Class Exercise