

Session 6

- You leave here thinking carefully about AI.
- You continue to engage AI as a collaborator.
- You use safely.

AI Evolution -- 4 by 6 cards



What do you know about me now, compared to what you knew when we started?



How did you acquire new information?



How much do you trust what you know now?

Want some suggestions?

He's.....

- Retired
- Not contemporary with modern pop culture
- Needs a barber
- Fashion sense is flannel → always appropriate
- Risk adverse – wears a belt and suspenders
- A candidate for Mohs Surgery
- Still failing to repeat questions
- A Big 10 college alum
- Highly caffeinated -- too much coffee
- Got a grandchild who likes dragons

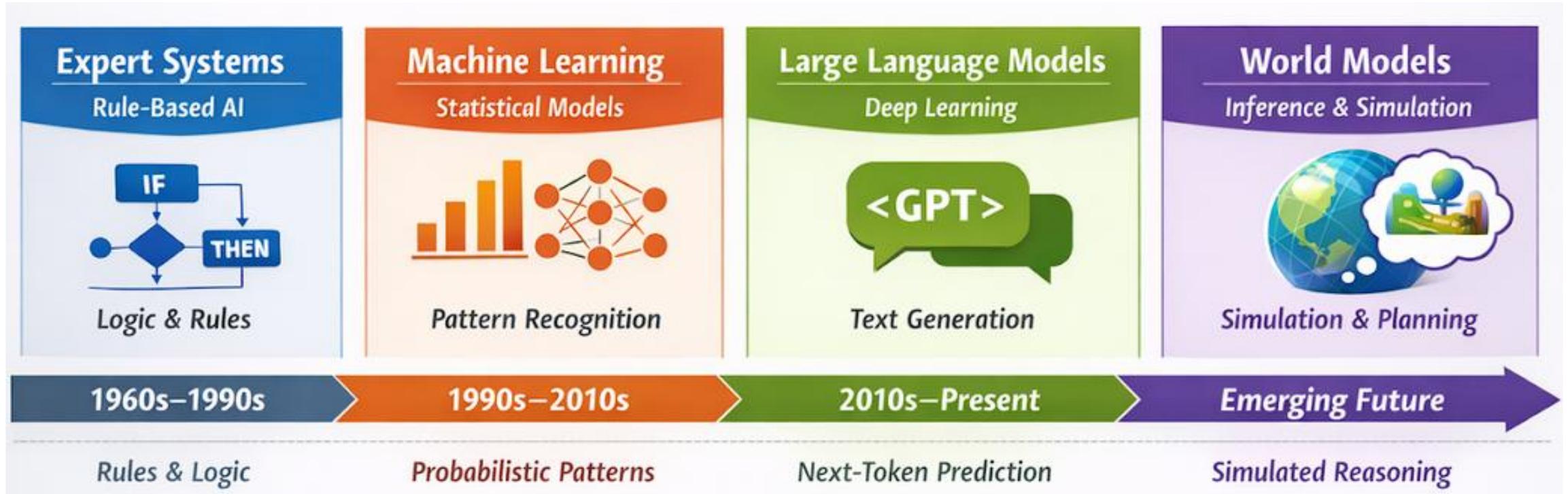


How Did You
Acquire This
Information?

How AI Models Learn - How You Learned

AI Model	Your Source % ?	Method	Trust?
Rational Model	~ 0	Rules	
Machine Learning	> 0 < 5	Pattern Recognition Statistical	
Large Language Models	> 0 < 10	Probability – Context Deep Learning	
	> 90	Experience	

Evolution of AI



Intuitively Perhaps

Follow Instructions

Spot Patterns

Talk Fluently *

Think Ahead

Adjust

* Note on Diffusion

World Models

Intelligence = Internal simulation of reality

- Structured models of the world
- Learning: is self-supervised
- Learning: is interaction based
- Inference: Simulation
- Inference: Planning
- Inference: Counterfactual reasoning

Inference becomes central

- Models 'imagine' outcomes

LLMs know what words come next

World Models attempt to know what comes next

Define Terms

- **Counterfactual Reasoning:** Imagining alternatives to past events. “What If” or simulating outcomes if factors had been different.
- **Inference:** Conclusion reached on the basis of evidence and reasoning.
- **Simulation-based Inference:** Training neural networks on data generated by a simulator.
- **Bayesian Parameter Estimation:** Updating prior beliefs with new data



World Models in place now

- Robotics

- Tesla





Speaking of
Robots

Segue to
Agentic AI

Agentic AI

An assistant who can plan, act, check their work, update plan as things change.



Agentic AI Examples

Organize e-mails, draft replies, update calendar, notify when actions are needed.

Customer support that reads / listens to issues, researches, then fixes simple issues such as resetting passwords.

Travel planning that proposes itinerary, books flights, hotels, restaurant reservations, and adjusts when flights or other unforeseen events occur.

Agentic AI for you

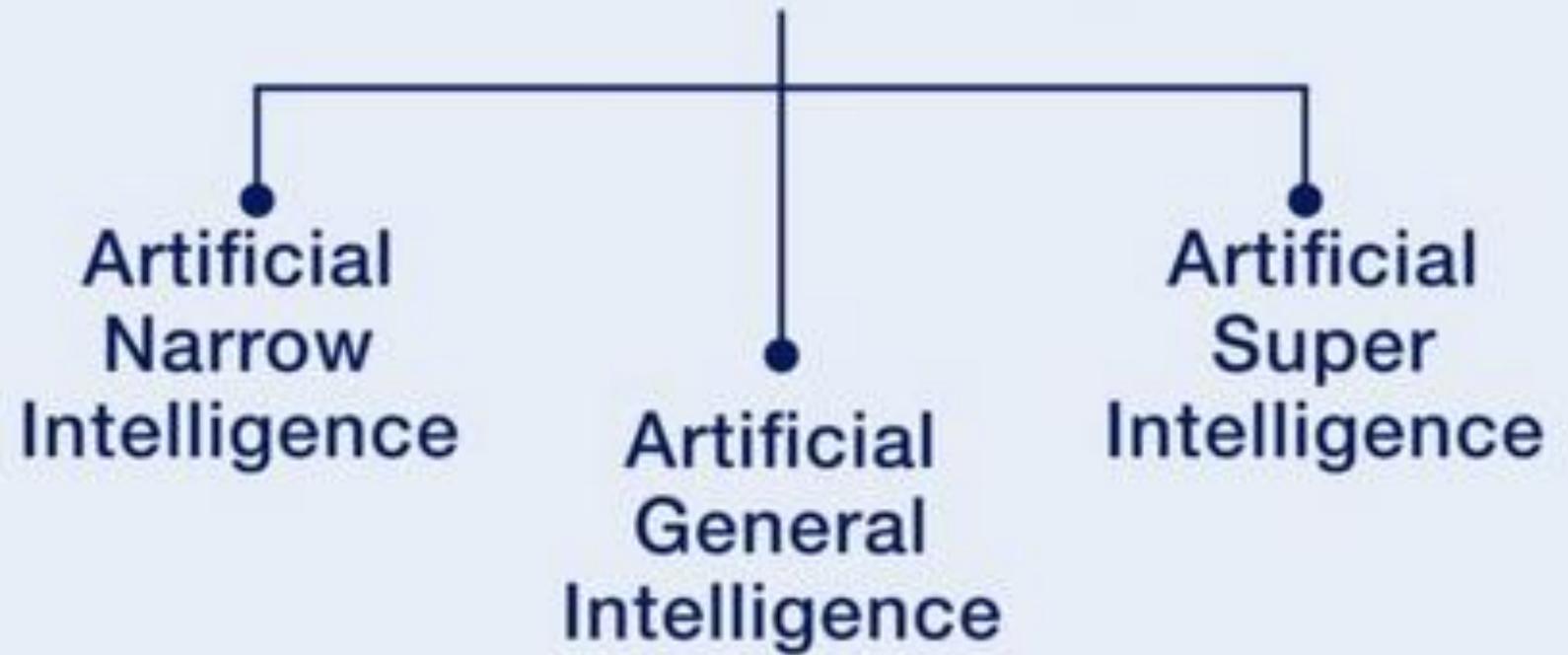
- Provide you with a post-class resource list based on the articles, papers, sub stacks, and other materials I collected for this course.
- Organize into a follow up reading list based by session.
- Summarize the main points



Consider

- Recursive
Self
Improvement

Types of Artificial Intelligence



Floor is Yours



LL
-PITCH
IGN

